



5

EPIC® Industrial connectors

EPIC® industrial connectors can be found everywhere in industrial machinery and plant engineering, for measuring, control, and drives. EPIC® is a flexible system of housings, inserts, and contacts: all extremely robust, absolutely safe, and simplicity itself to assemble.

Application range

- Electronics and telecommunications
- Measurement, testing, and control technology
- Industrial machinery and appliances
- Drive technology and industrial automation
- Photovoltaic plants

Product range

- 290** Rectangular connector inserts
- 377** Rectangular connector housing
- 425** Rectangular connector accessories
- 437** Circular connectors
- 455** Pin & sleeve connectors

EPIC® brand overview

Rectangular connectors

	HBE	HA	HQ	STA	HEE	HBS	Power HS	HBVE	HD	HDD	MC	MH	Power K
Power	■	■	■		■	■	■	■			■	■	■
Control/ signal	■	■	■	■	■				■	■	■	■	■
Data											■	■	
Number of contacts	6, 10, 16, 24, 32, 48 (+PE)	3, 4, 10, 16, 32, 48, 64 (+PE)	5, 12 (+PE)	6, 14, 20, 40	10, 18, 32, 46, 64, 92 (+PE)	6, 12 (+PE)	4 (+PE)	3+2, 6+2, 10+2 (+PE)	7, 8, 15, 25, 40, 50, 64, 80, 128 (+PE)	24, 42, 72, 108, 144, 216 (+PE)	1 - 280, Data Bus (+PE), pneumatic	2 - 60, Data (+PE)	4/0, 4/2, 4/8 (+PE)
Rated voltage	600V	600V	600V	48V	600V	600V	1000V	600V	600V	600V	30 - 1000V	50 - 1000V	600V
Rated current	16A	10A, 14A	14A, 16A	10A	16A	35A	65A	16A	10A	8.5A	1 - 220A	10 - 100A	16A, 80A
Termination type*	SC, CR, CC	SC	CR	SC, SOL	CR	SC	ASC	SC	CR	CR	SC, CR, CC, HO	CR	SC
Wire size (AWG)	20 - 14, 20 - 12	20 - 14	20 - 12, 26 - 14	20 - 16	20 - 12	20 - 10	14 - 8	20 - 14	26 - 14	26 - 14	28 - 4/0	26 - 8	12 - 6, 20 - 14
Housing	HB, ULTRA HB	HA	HA	HA	HB, ULTRA HB	HB, ULTRA HB	HB	HB, ULTRA HB	HA, HB, ULTRA HB	HB, ULTRA HB	HB, ULTRA HB	HB	HB, ULTRA HB
IP rating**	IP65	IP65	IP65	IP65	IP65	IP65	IP65	IP65	IP65	IP65	IP65	IP65	IP65
UL 50E**	Type 4, 4X, 12	Type 4, 12	Type 4, 12	Type 4, 12	Type 4, 4X, 12	Type 4, 4X, 12	Type 4, 12	Type 4, 4X, 12	Type 4, 4X, 12	Type 4, 4X, 12	Type 4, 4X, 12	Type 4, 12	Type 4, 4X, 12
Approvals***													

* Termination type: SC = screw, CR = crimp, CC = cage clamp, ASC = axial screw, SOL = solder, HO = hose

** When properly installed with EPIC® housing

*** See product page for individual approvals

Circular connectors

	POWER M 12	POWER LS 1	SIGNAL M 23	SIGNAL R 3.0
Power	■	■	■	
Control/ signal			■	■
Number of contacts	3+PE	5+PE, 3+PE+4	6, 7, 8+1, 9, 12, 16, 17	21, 26
Rated voltage	600V	600V	50V, 100V, 150V	24V AC, 60V DC
Rated current	12A	26A, 27A	7A, 14A	7.5A
Termination type*	SC	CR	CR, SOL	SOL
Wire size (AWG)	18 - 16	20 - 12, 24 - 18	18 - 14, 26 - 18	up to 18
IP rating	IP67	IP67, IP68	IP67, IP68	IP65/67
Approvals**				—

Pin & sleeve connectors

	MULTIMAX	CEE	ULYSSE	ALUPRES
Power	■	■	■	■
Control/ signal				
Number of contacts	1+N+PE, 2+PE, 3+PE, 3+N+PE	1+N+PE, 2+PE, 3+PE, 3+N+PE	1+N+PE, 2+PE, 3+PE, 3+N+PE	1+N+PE, 2+PE, 2+N+PE, 3+PE, 3+N+PE
Rated voltage	125V - 600V	125V - 500V	125V - 500V	125V - 500V
Rated current	16A - 32A	16A - 125A	16A - 63A	16A - 63A
Termination type*	SC	SC	SC	SC
Wire size (AWG)	16 - 12, 12 - 8	16 - 12, 12 - 8, 10 - 6, 4 - 1	16 - 12, 12 - 8, 10 - 6	16 - 12, 12 - 8, 10 - 6
IP rating	IP44	IP44, IP67	IP44, IP67	IP67, IP55
Approvals**				

EPIC® rectangular housing



Strain relief

Strain relief provides a seal between the cable and the connector housing. It may also be used to offer additional functions like strain relief and braid continuity for EMC protection.

Hood

The connector housing allows for cable entry and protects the contact terminations from physical and environmental damage. EPIC® rectangular hoods are available as top-entry or side-entry in a variety of sizes and entry thread types (PG, NPT, or metric). PG entry hoods include gland.

Inserts

The male and female inserts house and insulate the contacts.

- Screw termination
- Crimp termination (stamped & formed or machined)
 - * crimp contacts must be purchased separately
- Cage clamp (screwless spring)
- Push-in

Base

Mates with the hood to complete the connection.

- Panel mount: cable entry through cut out in panel.
- Surface mount: cable entry through a gland into the side of the connector base.
- Cable coupler hood: for cable-to-cable connection; the cable connector mates with a top-entry hood. This is frequently used to extend cables.

Technical data

Specifications:	DIN 43652	Material:	
Temperature range:		- EPIC® ULTRA:	nickel-plated zinc; stainless steel locking levers & bolts
- EPIC® HB & HA:	-40°C to +125°C	- EPIC® HB 6-48 & EPIC® HA 10-64:	aluminum alloy; powder-coated (gray RAL 9006); zinc-plated steel locking levers & bolts
- EPIC® ULTRA:	-40°C to +100°C	- EPIC® HA 3/4:	die-cast zinc; powder-coated or thermoplastic flame-retardant material rated UL 94 V-0 (gray or black plastic)
Protection class*:	IP65, UL 50E Type 4, 4X, 12 or IP65 (consult for availability)		
* EPIC® connectors meet protection class standards only when in the mated condition. Please refer to individual product pages for applicable class ratings			

EPIC® rectangular connectors shall comply with all applicable requirements of Underwriters Laboratory (UL) Standards 1977 & 498, VDE Standard 0110 for creepage and clearance distances and VDE Standard 0627 for the connector design. The EPIC® HD and HDD series are developed according to DIN Standard 43652.

Approvals



UL File Number:
E75770



CSA File Number:
053004

EPIC® insert series

292 EPIC® HBE series



# of contacts:	6, 10, 16, 24, 32, 48 (+PE)
Rated voltage:	600V
Rated current:	16A
Termination:	screw, crimp, cage clamp, push-in
Wire size:	20–14 AWG (0.5–2.5 mm ²) crimp available in 12 AWG (4 mm ²)

300 EPIC® HA series



# of contacts:	3, 4, 10, 16, 32, 48, 64 (+PE)
Rated voltage:	600V
Rated current:	- HA 3/4: 10A - HA 10 - 64: 14A
Termination:	screw
Wire size:	20–14 AWG (0.5–2.5 mm ²)

304 EPIC® HQ series



# of contacts:	5, 12 (+PE)
Rated voltage:	600V
Rated current:	14A, 16A
Termination:	crimp
Wire size:	20–14 AWG (0.5–2.5 mm ²) 26–14 AWG (0.14–2.5 mm ²)

307 EPIC® STA series



# of contacts:	6, 14, 20, 40 (+PE)
Rated voltage:	48V
Rated current:	10A
Termination:	screw, solder
Wire size:	20–16 AWG (0.5–1.5 mm ²)

310 EPIC® HEE series



# of contacts:	10, 18, 32, 46, 64, 92 (+PE)
Rated voltage:	600V
Rated current:	16A
Termination:	crimp
Wire size:	20–12 AWG (0.5–4 mm ²)

314 EPIC® HBS series



# of contacts:	6, 12 (+PE)
Rated voltage:	600V
Rated current:	35A
Termination:	screw
Wire size:	20–10 AWG (0.5–6 mm ²)

316 EPIC® Power HS series



# of contacts:	4 (+PE)
Rated voltage:	1000V
Rated current:	65A
Termination:	axial screw
Wire size:	14–8 AWG (2.5–10 mm ²)

317 EPIC® HBVE series



of contacts: 3, 6, 10 (+PE)
Rated voltage: 600V
Rated current: 16A
Termination: screw
Wire size: 20–14 AWG (0.5–2.5 mm²)

319 EPIC® HD series



of contacts: 7, 8, 15, 25, 40, 50, 64, 80, 128 (+PE)
Rated voltage: 250V
Rated current: 10A
Termination: crimp
Wire size: 22–14 AWG (0.14–2.5 mm²)

337 EPIC® HDD series



of contacts: 24, 42, 72, 108, 144, 216 (+PE)
Rated voltage: 600V
Rated current: 8.5A
Termination: crimp
Wire size: 22–14 AWG (0.14–2.5 mm²)

341 EPIC® MH series



of contacts: 2–60 (+PE)
Rated voltage: 50–1000V
Rated current: 10–100A
Termination: crimp
Wire size: 26–8 AWG (0.14–10 mm²)

351 EPIC® MC series



of contacts: 1–280 (+PE)
Rated voltage: 30–1000V
Rated current: 1–220A
Termination: screw, crimp, coax, cage clamp
Wire size: 28–4/0 AWG (0.08–95 mm²)

374 EPIC® Power K series



of contacts: 4 pwr + 0 sig, 4 pwr + 2 sig, 4 pwr + 8 sig
Rated voltage: 600V
Rated current: 16A, 80A
Termination: screw
Wire size:
 – power: 12–6 AWG (4–16 mm²)
 – signal: 20–14 AWG (0.5–2.5 mm²)

EPIC® inserts overview

Insert series page	HBE 292	HA 300	HQ 304	STA 307	HEE 310	HBS 314	Power HS 316	HBVE 317	HD 319	HDD 337	MH 341	MC 351	Power K 374
3	✓							✓ + 2 signal					
4	✓						✓						
5			✓										
6	✓			✓*		✓		✓ + 2 signal	✓				
7									✓				
8									✓*				
10	✓				✓			✓ + 2 signal					
12						✓							
14				✓*					✓				
15													
16	✓												
18		✓			✓								
20				✓*									
24	✓								✓	✓			
25													
32	✓				✓				✓				
40		✓		✓*									
42										✓			
46					✓								
48	✓	✓											
50									✓				
64	✓	✓			✓				✓	✓			
72									✓				
80									✓				
92					✓								
108										✓			
128									✓				
144										✓			
216										✓			
1 – 280											✓		
2 – 60											✓		
4 power + 0 signal													✓
4 power + 2 signal													✓
4 power + 8 signal													✓

* marked inserts do not include a dedicated ground terminal
Number of conductors (+PE)

UL rated voltage	Insert series	HBE	HA	HQ	STA	HEE	HBS	Power HS	HBVE	HD	HDD	MH	MC	Power K
	48V				✓									
	250V									✓				
	600V	✓	✓	✓		✓	✓		✓		✓			
	1000V							✓						
	30 – 1000V											✓ min. 50V	✓	
	380 – 600V													✓
Rated current	8.5A										✓			
	10A		✓ (3 / 4)	✓	✓					✓				
	14A		✓											
	16A	✓		✓		✓			✓					
	35A						✓							
	65A							✓						
	1 – 220A												✓	
Termination type	10 – 100A											✓		
	16 – 80A													✓
	cage clamp	✓											✓	
	crimp	✓		✓		✓				✓	✓	✓	✓	
Wire size	screw	✓	✓		✓		✓		✓				✓	
	solder				✓									
	28 – 4/0 AWG												✓	
	26 – 14 AWG			✓						✓	✓			
	20 – 16 AWG				✓									
	20 – 14 AWG	✓	✓	✓					✓					✓ (signal)
	20 – 12 AWG	✓ (crimp)				✓								
	20 – 10 AWG						✓							
	14 – 8 AWG													
	12 – 6 AWG													✓ (power)

1 mm contacts

Stamped & formed contacts for EPIC® MC 20



Contact size		Stripping length mm	Reel of 500 gold contacts: left-hand feed	
mm²	AWG*		pin	socket
0.08-0.2	28-26	2.5 ± 0.5	44429013	44429009
0.2-0.52	26-20	2.5 ± 0.5	44429014	44429010

* AWG conversion is approximate

Contact tools



Crimp tool:
11158400



Removal tool:
11132500

for thermocouple applications



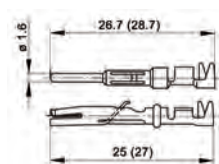
Contact size		Stripping length mm	Material	Polarity	Color	Type	Strip of 25 contacts	
mm²	AWG*						pin	socket
0.08-0.2	28-26	2.5 ± 0.5	chromel	(+)	white	type K	TC-CH-P	TC-CH-S
0.2-0.52	26-20	2.5 ± 0.5	alumel	(-)	green	type K	TC-AL-P	TC-AL-S
0.08-0.2	28-26	2.5 ± 0.5	iron	(+)	black	type J	TC-IR-P	TC-IR-S
0.2-0.52	26-20	2.5 ± 0.5	constantan	(-)	yellow	type J	TC-CO-P	TC-CO-S

1.6 mm contacts

Stamped & formed contacts



contacts sold in
bags of 100 or 1 reel



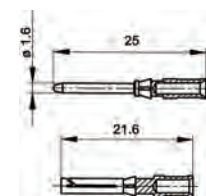
Contact size		Stripping length mm	Bag of 100 silver contacts		Bag of 100 gold contacts		Reel of 100 silver contacts: left-hand feed		Reel of 200 silver contacts: left-hand feed	
mm²	AWG		pin	socket	pin	socket	pin	socket	pin	socket
0.14-0.5	26-20	2.5-0.5	11241100	11231100	11243100	11233100	—	—	11240700	11230700
0.5-1.5	20-16	3.5-0.5	11221000	11236100	11221300	11238100	—	—	11220700	11235700
1.5-2.5	16-14	3.5-0.5	11223500	11228500	—	—	11223000	11228000	—	—

Contact size		Stripping length mm	Reel of 2000 silver contacts: right-hand feed		Reel of 2000 gold contacts: right-hand feed		Reel of 2000 silver contacts: left-hand feed		Reel of 2000 gold contacts: left-hand feed	
mm²	AWG		pin	socket	pin	socket	pin	socket	pin	socket
0.14-0.5	26-20	2.5-0.5	11240000	11230000	—	—	11240400	11230400	11240500	11230500
0.5-1.5	20-16	3.5-0.5	11220000	11235000	11220100	11235200	11226000	11226500	—	—
1.5-2.5	16-14	3.5-0.5	—	—	—	—	11222700	11227700	—	—

Machined contacts



contacts sold in bags of 100



Contact size		Stripping length mm	# of marking tracks	Bag of 100 silver contacts		Bag of 100 gold contacts	
mm²	AWG			pin	socket	pin	socket
0.14-0.37	26-22	8	1	13162000	13163000	13162500	13163500
0.5	20	8	2	13162100	13163100	13162600	13163600
0.75-1.0	18	8	3	13162200	13163200	13162700	13163700
1.5	16	8	4	13162300	13163300	13162800	13163800
2.5	14	5.8	5	13162400	13163400	13162900	13163900

Contact tools



Crimp tool:
11147000



Removal tool:
11161000



Crimp dies
for machined contacts: 11147100
for stamped contacts:
0.14-0.5 mm²: 11147170
0.5-1.5 mm²: 11147180
1.5-2.5 mm²: 11147190



Crimp tool, die & locator
for stamped contacts:
0.14-0.5 mm²: 11147004
0.5-1.5 mm²: 11147005
1.5-2.5 mm²: 11147006



Locator
for machined contacts: 11147200
for stamped contacts: 11147300

If not otherwise specified, all values relating to the product are nominal values.
Photographs are not to scale and are not true representations of the products in question.
For current information go to our website.

2.5 mm contacts

Stamped & formed contacts for EPIC® MC 4+PE



contacts sold in
bags of 100 or 1 reel



Contact size		Bag of 100 silver contacts		Reel of 100 silver contacts		Reel of 200 silver contacts	
mm ²	AWG	pin	socket	pin	socket	pin	socket
0.5 - 1.5	20 - 16	11201000	11205000	—	—	11208000	11209000
1.5 - 2.5	16 - 14	11202000	11206000	11208500	11209500	—	—

Contact tools



Crimp tool:
11147000



Locator:
11147300



Removal tool:
11160000



Crimp tool
for reel:
11153500



Crimp dies:
0.5 - 1.5 mm²: 11147180
1.5 - 2.5 mm²: 11147190

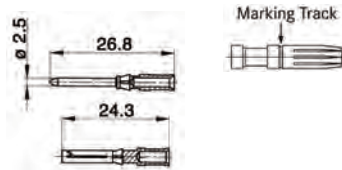


Crimp dies for reel:
0.5 - 1.5 mm²: 11153700
1.5 - 2.5 mm²: 11153800

Machined contacts



contacts sold in bags of 100



Contact size		Stripping length (mm)		# of marking tracks	Bag of 100 silver contacts		Bag of 100 gold contacts	
mm ²	AWG	pin	socket		pin	socket	pin	socket
0.5	20	7.4	7.3	—	11190000	11195000	11192000	11197000
0.75 - 1.0	18	7.4	7.3	1	11190100	11195100	11192100	11197100
1.5	16	7.4	7.3	2	11190200	11195200	11192200	11197200
2.5	14	7.4	7.3	3	11190300	11195300	—	—
4.0	12	7.4	7.3	—	11190400	11195400	—	—
Machined contacts for EPIC® MC 5								
0.5	20	7.8	7.8	—	1121300C	1121800C	—	—
0.75 - 1.0	18	7.8	7.8	1	1121310C	1121810C	—	—
1.5	16	7.8	7.8	2	1121320C	1121820C	—	—
2.5	14	7.8	7.8	3	1121330C	1121830C	—	—
4.0	12	7.8	7.8	—	1121340C	1121840C	—	—

Contact tools



Crimp tool:
11147000



Crimp dies:
11147100



Locator:
11147200



Removal tool: 11171000
(required for EPIC® MC 5)

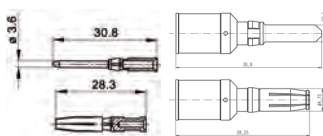
For removal of contacts, use a slotted screwdriver; no special tool is necessary. EPIC® MC 5 requires a removal tool.

3.6 mm contacts

Machined contacts



contacts sold in bags of 100



1.5 - 10 mm²

16 mm²

Contact size		Stripping length mm	Bag of 100 silver contacts	
mm ²	AWG		pin	socket
1.5	16	10	1121070C	1121570C
2.5	14	10	1121060C	1121560C
4.0	12	10	1121000C	1121500C
6.0	10	10	1121010C	1121510C
10.0	8	10	1121020C	1121520C
16	6	10	44424014	44424015

Contact tools



Crimp tool:
11147000



Crimp dies:
1.5 - 2.5 mm²: 11147110
4.0 - 10 mm²: 11147120
16 mm²: 11147111



Locator:
11147210



Removal tool:
11171100

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For current information go to our website.

for current information see: www.lappusa.com • www.lappcanada.com

Courtesy of Steven Engineering, Inc - (800) 258-9200 - sales@steveneng.com - www.stevenengineering.com

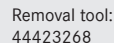
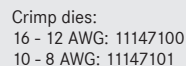
Machined contacts for EPIC® MH 3 & MH 4



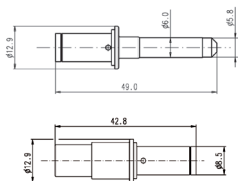
Contact size		Stripping length mm	Bag of 10 silver contacts	
mm ²	AWG		pin	socket
1.5	16	10	44423250	44423255
2.5	14	10	44423251	44423256
4	12	10	44423252	44423257*
6	10	10	44423253	44423258
10	8	10	44423254	44423259

* contact 44423257 requires crimp die 11174101

Contact tools

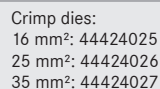


Machined contacts for EPIC® MC HHC2



Contact size		Bag of 20 silver-plated contacts	
mm ²	AWG	pin	socket
16	6	44424019	44424022
25	4	44424020	44424023
35	1	44424021	44424024

Contact tools



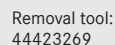
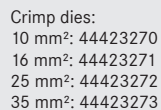
Use hydraulic crimp tool:
Klaue type FK 60/22-L

Machined contacts for EPIC® MH2



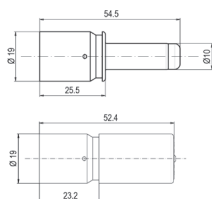
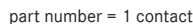
Contact size		Stripping length mm	Bag of 10 silver contacts	
mm ²	AWG		pin	socket
10	8	18	44423242	44423246
16	6	18	44423243	44423247
25	4	18	44423244	44423248
35	2	18	44423245	44423249

Contact tools



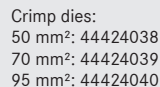
Use with hydraulic crimp tool

Machined contacts for EPIC® MC HHC1



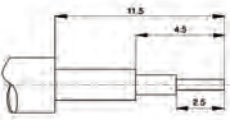
Contact size		Silver-plated contact		Pack size
mm ²	AWG	pin	socket	
50	1/0	44424032	44424035	1
70	2/0	44424033	44424036	1
95	3/0	44424034	44424037	1

Contact tools



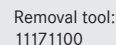
Use hydraulic crimp tool:
Klaue type FK 60/22-L

Contacts for EPIC® MC 3 Coax



Cable type	Impedance	Pin	Socket
Solder contacts			
RG58 CU	50Ω	44429018	44429017
RG180 BU	75Ω	44429020	44429019
RG187 AU	75Ω	44429022	44429021
Solder/crimp contacts			
RG58	50Ω	11214200	11219200

Contact tools



If not otherwise specified, all values relating to the product are nominal values. Photographs are not to scale and are not true representations of the products in question. For current information go to our website.

Contact tools

crimp tool



crimp die



locator



removal tool



Description	Crimp tool	Crimp dies	Locator	Removal tool
1 mm contacts				
1 mm stamped on reel	11158400	crimp dies included	—	11132500
1.6 mm contacts				
1.6 mm machined	11147000	11147100	11147200	11161000
1.6 mm stamped	11147000	0.14 - 0.5 mm²: 11147170 0.5 - 1.5 mm²: 11147180 1.5 - 2.5 mm²: 11147190	11147300	11161000
1.6 mm stamped on reel	crimp kit (includes tool, dies, and locator) 0.14 - 0.5 mm²: 11147004 0.5 - 1.5 mm²: 11147005 1.5 - 2.5 mm²: 11147006			11161000
2.5 mm contacts				
2.5 mm machined	11147000	11147100	11147200	HBE series: use slotted screwdriver MC series: 11171000
2.5 mm stamped	11147000	0.5 - 1.5 mm²: 11147180 1.5 - 2.5 mm²: 11147190	11147300	11160000
2.5 mm stamped on reel	11153500	0.5 - 1.5 mm²: 11153700 1.5 - 2.5 mm²: 11153800	—	11160000
3.6 mm contacts				
3.6 mm machined	11147000	1.5 - 2.5 mm²: 11147110 4 - 10 mm²: 11147120 16 mm²: 11147111	11147210	11171100
4 mm contacts				
4 mm machined	11147000	1.5 - 4 mm²: 11147100 6 - 10 mm²: 11147101	11147201	44423268
6 mm contacts				
6 mm machined	use hydraulic crimp tool	16 mm²: 44424025 25 mm²: 44424026 35 mm²: 44424027	—	—
8 mm contacts				
8 mm machined	use hydraulic crimp tool	10 mm²: 44423270 16 mm²: 44423271 25 mm²: 44423272 35 mm²: 44423273	—	44423269
10 mm contacts				
10 mm machined	use hydraulic crimp tool	50 mm²: 44424038 70 mm²: 44424039 95 mm²: 44424040	—	—
Coax contacts				
Coax	11147000	11147130	—	11171100

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Photographs are not to scale and are not true representations of the products in question.
For current information go to our website.

for current information see: www.lappusa.com • www.lappcanada.com

Courtesy of Steven Engineering, Inc - (800) 258-9200 - sales@steveneng.com - www.stevenengineering.com

EPIC® HBE series



Inserts for medium power & control applications

294	EPIC® HBE 6	297	EPIC® HBE 24
295	EPIC® HBE 10	298	EPIC® HBE 32
296	EPIC® HBE 16	299	EPIC® HBE 48

* NEW EPIC® HBE inserts with push-in termination

EPIC® HA series

Compact screw-terminated inserts for medium power & control applications

301	EPIC® HA 3	302	EPIC® HA 32
301	EPIC® HA 4	303	EPIC® HA 48
301	EPIC® HA 10	303	EPIC® HA 64
302	EPIC® HA 16		

EPIC® HQ series

Compact crimp-terminated inserts for power & control applications

305	EPIC® HQ 5	306	EPIC® HQ 12
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EPIC® STA series

Inserts with solid spring-designed contacts for low voltage control applications

308	EPIC® STA 6	309	EPIC® STA 20
308	EPIC® STA 14	309	EPIC® STA 40

EPIC® HEE series

Inserts with high crimp contact density for power & control applications

311	EPIC® HEE 10	312	EPIC® HEE 46
311	EPIC® HEE 18	313	EPIC® HEE 64
312	EPIC® HEE 32	313	EPIC® HEE 92

EPIC® HBS series

Screw-terminated inserts for high-current power applications

315	EPIC® HBS 6	315	EPIC® HBS 12
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EPIC® Power HS series

Compact axial screw-terminated inserts for high-current power applications

316	EPIC® Power HS 4
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EPIC® HBVE series

High-voltage screw-terminated inserts with two switch contacts for power applications

318	EPIC® HBVE 3	318	EPIC® HBVE 10
318	EPIC® HBVE 6		

EPIC® HD series

Compact high-density crimp-terminated inserts for control applications

320	EPIC® HD 7	329	EPIC® HD 50
322	EPIC® HD 8	331	EPIC® HD 64
323	EPIC® HD 15	333	EPIC® HD 80
325	EPIC® HD 25	335	EPIC® HD 128
327	EPIC® HD 40		

EPIC® HDD series

Ultra high-density crimp-terminated inserts for control applications

338	EPIC® HDD 24	339	EPIC® HDD 108
338	EPIC® HDD 42	340	EPIC® HDD 144
339	EPIC® HDD 72	340	EPIC® HDD 216

EPIC® MH series

Modular system for power, signal & data

342	EPIC® MH 2	347	EPIC® MH 36
343	EPIC® MH 3	347	EPIC® MH 0
343	EPIC® MH 4	348	EPIC® MH BUS/MH Coax
344	EPIC® MH 6	349	EPIC® MH 6 multi frame
344	EPIC® MH 8	349	EPIC® MH 10 multi frame
345	EPIC® MH 12	350	EPIC® MH 16 multi frame
345	EPIC® MH 17	350	EPIC® MH 24 multi frame
346	EPIC® MH 20		

EPIC® MC series

Modular inserts for custom configurations

353	EPIC® MC 2	366	EPIC® MC Cage Clamp
354	EPIC® MC HC2	367	EPIC® MC PROFIBUS® DP
355	EPIC® MC HHC2	367	EPIC® MC Universal Bus
356	EPIC® MC HHC1	368	EPIC® MC BUS
357	EPIC® MC 3 Coax	369	EPIC® MC Ethernet
358	EPIC® MC 3	370	EPIC® MC Pneumatic
359	EPIC® MC 3 High Voltage	371	EPIC® MC 2 module frame
360	EPIC® MC 4 HE	371	EPIC® MC 3 module frame
361	EPIC® MC 4+PE High Voltage	372	EPIC® MC 5 module frame
362	EPIC® MC 5	372	EPIC® MC 7 module frame
363	EPIC® MC 10	373	EPIC® MC 10 module frame
365	EPIC® MC 20	373	EPIC® MC 14 module frame
366	EPIC® MC 0		

EPIC® Power K series

Screw-terminated inserts for combination power & control applications

376	EPIC® Power K 4/0	376	EPIC® Power K 4/8
376	EPIC® Power K 4/2		

EPIC® HBE series

Inserts for medium power & control applications



EPIC® HBE series inserts provide reliable termination and performance in the vast majority of medium power and control applications. Methods of termination include screw, crimp, screwless cage clamp, and push-in.

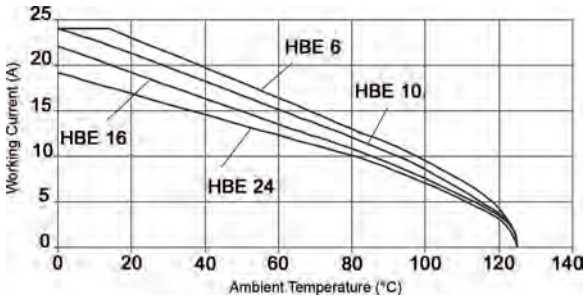
Technical data

Number of contacts:	6, 10, 16, 24, 32, 48 (+PE)	Crimp termination:	
Temperature range:	-40°C to +100°C	Rated current:	
- short-term:	up to +125°C	- UL/CSA; IEC:	16A
Rated voltage:		Wire size:	20 - 12 AWG (0.5 - 4 mm ²)
- UL/CSA:	600V	Contact material:	silver- or gold-plated copper alloy
- IEC:	500V	Contact resistance:	< 2 mΩ
Pollution level:	3	Cage clamp termination:	
Dimensioning transient:	6 kV	Rated current:	
Mating cycles:	- per DIN EN 61984:2008 Service Life Test: Tested to 100 cycles and passed - per Contact Thermal Test: Useful service in excess of 500 cycles is possible at rated voltage and current*	- UL/CSA; IEC:	16A
		Wire size:	20 - 14 AWG (0.5 - 2.5 mm ²)
		Contact material:	silver-plated copper alloy
		Contact resistance:	1.5 - 4 mΩ
Screw termination:		Push-in termination:	
Rated current:		Rated current:	
- UL/CSA; IEC:	16A	- UL/CSA:	13A
		- IEC:	16A
Wire size:	20 - 14 AWG (0.5 - 2.5 mm ²)	Wire size:	26 - 14 AWG (0.14 - 2.5 mm ²)
Contact material:	silver-plated copper alloy	Contact material:	silver-plated copper alloy
Contact resistance:	< 2 mΩ	Contact resistance:	< 2 mΩ

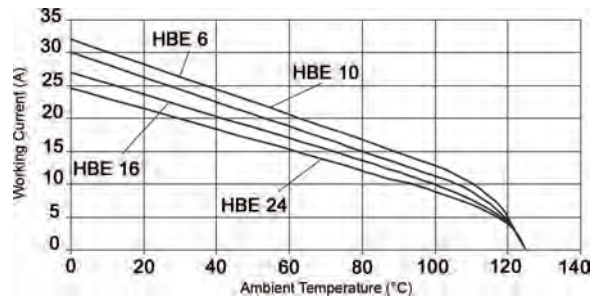
* In dry, non-conductive, non-corrosive environments when protected in a housing rated at least IP54 and disconnected for cycling and maintenance only.

EPIC® HBE derating curves

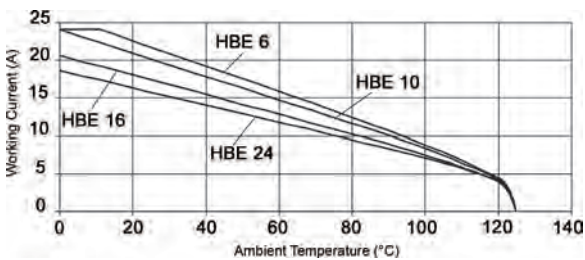
16 AWG (1.5 mm²) screw termination



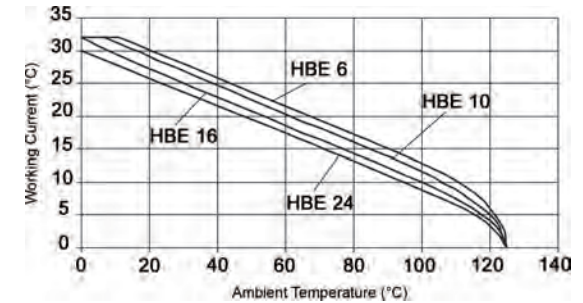
14 AWG (2.5 mm²) screw termination



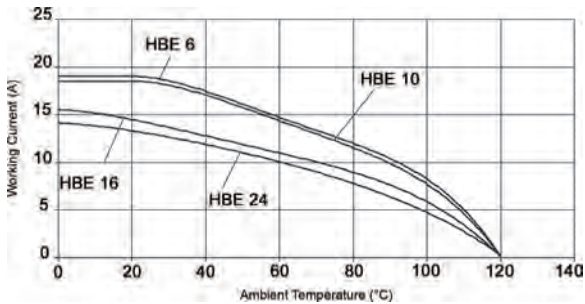
16 AWG (1.5 mm²) crimp termination



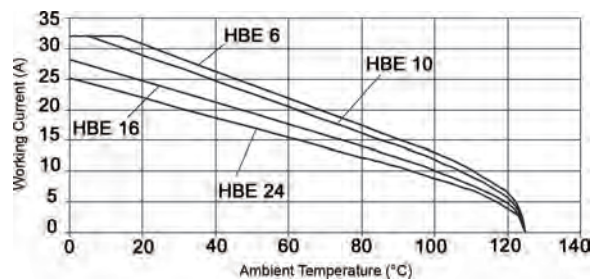
14 AWG (2.5 mm²) crimp termination



16 AWG (1.5 mm²) cage clamp



14 AWG (2.5 mm²) cage clamp



2.5 mm contacts

Machined contacts for EPIC® HBE crimp termination inserts



Contact tools



Crimp tool:
11147000



Crimp dies:
11147100

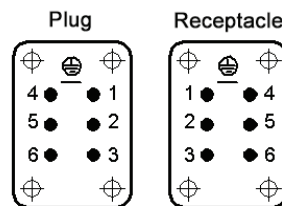
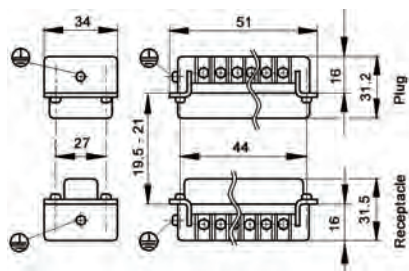
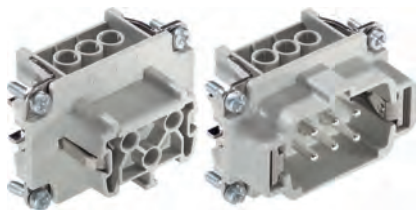


Locator:
11147200

for removal of contacts, use a slotted screwdriver; no special tool is necessary

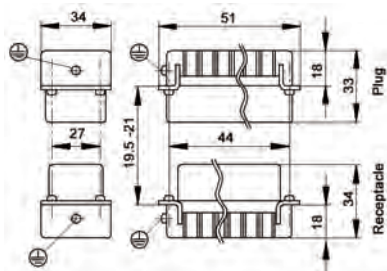
Contact size		Stripping length (mm)		# of marking tracks	Silver contacts		Gold contacts	
					pin	socket	pin	socket
0.5	20	7.4	7.3	—	11190000	11195000	11192000	11197000
0.75 - 1.0	18	7.4	7.3	1	11190100	11195100	11192100	11197100
1.5	16	7.4	7.3	2	11190200	11195200	11192200	11197200
2.5	14	7.4	7.3	3	11190300	11195300	—	—
4.0	12	7.4	7.3	—	11190400	11195400	—	—

contacts sold in bags of 100

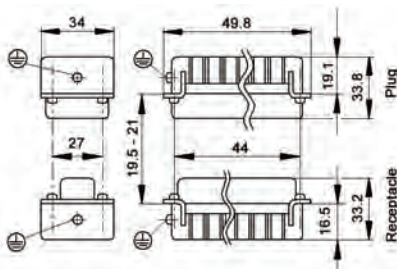
EPIC® HBE 6**Screw termination: 600V, 16A**

view from cable side

all dimensions are in mm

Crimp termination: 600V, 16A

crimp contacts sold separately, see page 293

Screwless cage clamp: 600V, 16A**Push-in termination: 600V, 13A****Approvals**

screw, crimp & push-in:



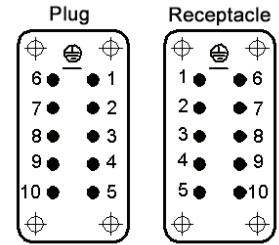
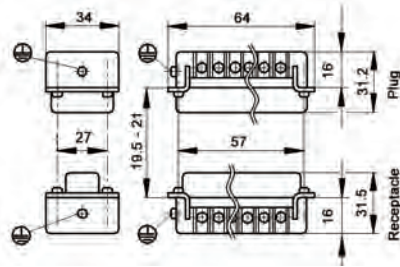
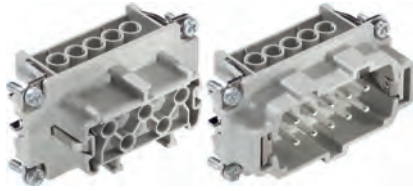
cage clamp:

**Compatible housing**HB 6
page 379

Termination	Wire protection	Plug	Receptacle
screw	yes	10190000	10191000
screw	no	10190100	10191100
crimp	—	10180000	10181000
cage clamp	yes	10400000	10401000
push-in	yes	44423200	44423201

EPIC® HBE 10

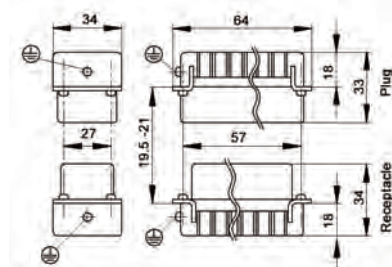
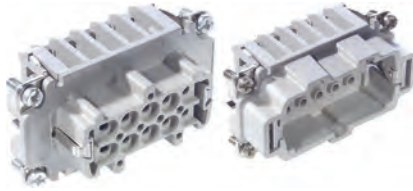
Screw termination: 600V, 16A



view from cable side

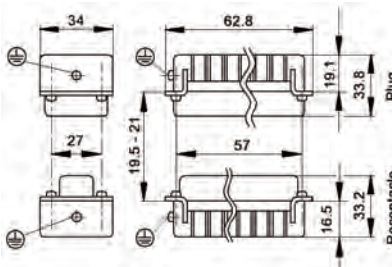
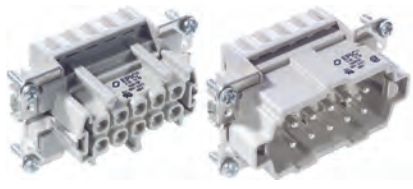
all dimensions are in mm

Crimp termination: 600V, 16A



crimp contacts sold separately, see page 293

Screwless cage clamp: 600V, 16A



Push-in termination: 600V, 13A



Termination	Wire protection	Plug	Receptacle
screw	yes	10192000	10193000
screw	no	10192100	10193100
crimp	—	10182000	10183000
cage clamp	yes	10400100	10401100
push-in	yes	44423202	44423203

Approvals

screw, crimp & push-in:



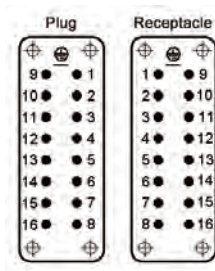
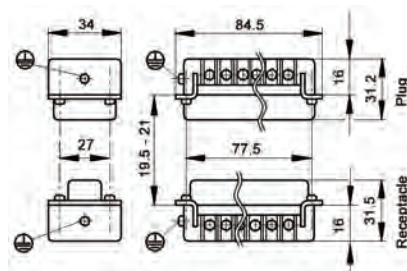
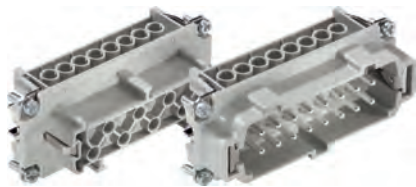
cage clamp:



Compatible housing

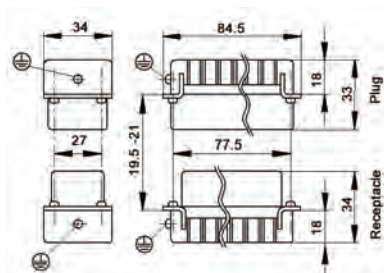


HB 10
page 382

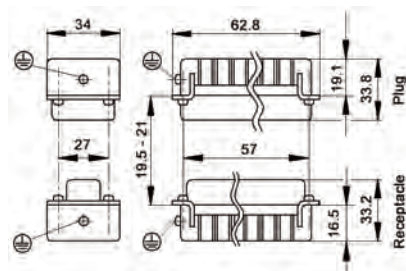
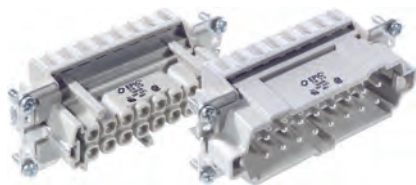
EPIC® HBE 16**Screw termination: 600V, 16A**

view from cable side

all dimensions are in mm

Crimp termination: 600V, 16A

crimp contacts sold separately, see page 293

Screwless cage clamp: 600V, 16A**Push-in termination: 600V, 13A****Approvals**

screw, crimp & push-in:



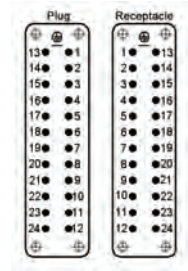
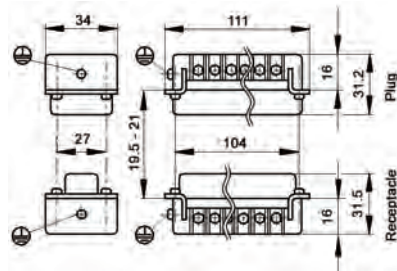
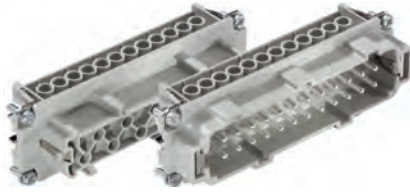
cage clamp:

**Compatible housing**HB 16
page 388

Termination	Wire protection	Plug	Receptacle
screw	yes	10194000	10195000
screw	no	10194100	10195100
crimp	—	10184000	10185000
cage clamp	yes	10400200	10401200
push-in	yes	44423204	44423205

EPIC® HBE 24

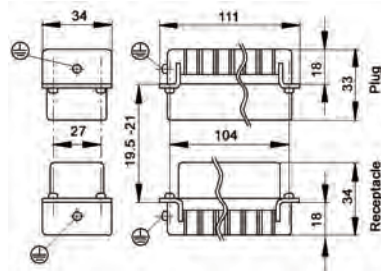
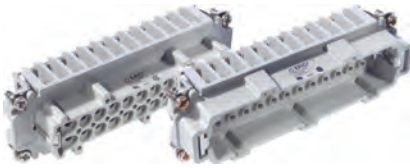
Screw termination: 600V, 16A



view from cable side

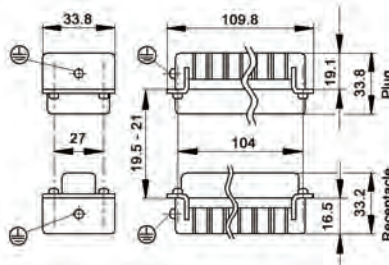
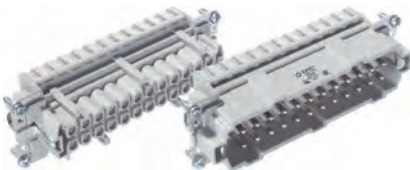
all dimensions are in mm

Crimp termination: 600V, 16A



crimp contacts sold separately, see page 293

Screwless cage clamp: 600V, 16A



Push-in termination: 600V, 13A



Approvals

screw, crimp & push-in:



cage clamp:



Compatible housing

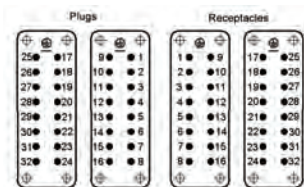
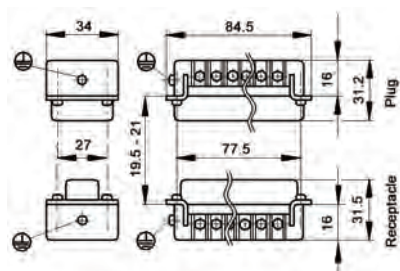


HB 24
page 394

Termination	Wire protection	Plug	Receptacle
screw	yes	10196000	10197000
screw	no	10196100	10197100
crimp	—	10186000	10187000
cage clamp	yes	10400300	10401300
push-in	yes	44423206	44423207

EPIC® HBE 32

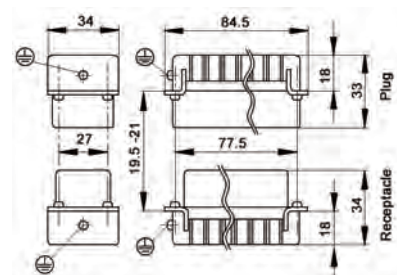
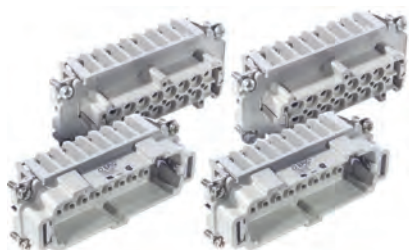
Screw termination: 600V, 16A



view from cable side

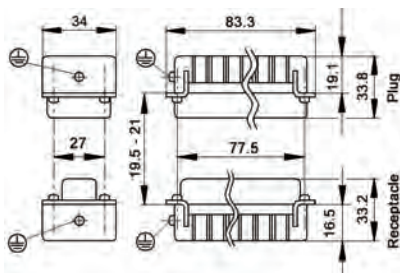
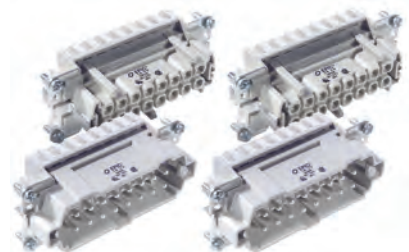
all dimensions are in mm

Crimp termination: 600V, 16A



crimp contacts sold separately, see page 293

Screwless cage clamp: 600V, 16A



Push-in termination: 600V, 13A



Approvals

screw, crimp & push-in:



cage clamp:



Compatible housing

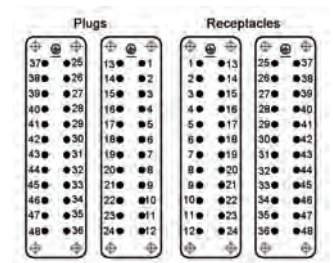
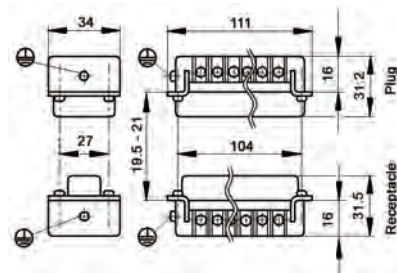
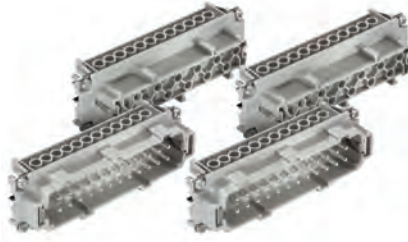
HB 32
page 400

Termination	Wire protection	Contact numbering	Plug	Receptacle
screw	yes	#1 - 16	10194000	10195000
		#17 - 32	10202000	10203000
		#1 - 16	10194100	10195100
screw	no	#17 - 32	10202100	10203100
		#1 - 16	10184000	10185000
		#17 - 32	10184200	10185200
cage clamp	yes	#1 - 16	10400200	10401200
		#17 - 32	10400400	10401400
		#1 - 16	44423204	44423205
push-in	yes	#17 - 32	44423208	44423209

If not otherwise specified, all values relating to the product are nominal values.
Photographs are not to scale and are not true representations of the products in question.

EPIC® HBE 48

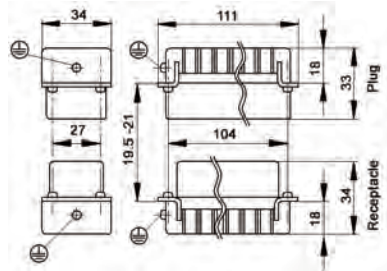
Screw termination: 600V, 16A



view from cable side

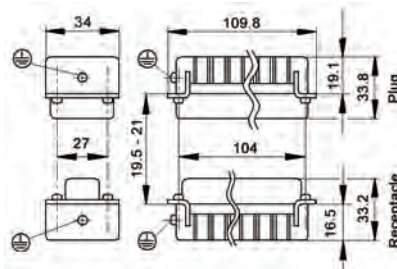
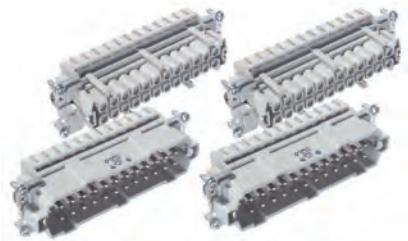
all dimensions are in mm

Crimp termination: 600V, 16A



crimp contacts sold separately, see page 293

Screwless cage clamp: 600V, 16A



Push-in termination: 600V, 13A



Termination	Wire protection	Contact numbering	Plug	Receptacle
screw	yes	# 1 - 24	10196000	10197000
		#25 - 48	10204000	10205000
screw	no	# 1 - 24	10196100	10197100
		#25 - 48	10204100	10205100
crimp	—	# 1 - 24	10186000	10187000
		#25 - 48	10186200	10187200
cage clamp	yes	# 1 - 24	10400300	10401300
		#25 - 48	10400500	10401500
push-in	yes	# 1 - 24	44423206	44423207
		#25 - 48	44423210	44423211

If not otherwise specified, all values relating to the product are nominal values.
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for current information see: www.lappusa.com • www.lappcanada.com

Courtesy of Steven Engineering, Inc - (800) 258-9200 - sales@steveneng.com - www.stevenengineering.com

Approvals

screw, crimp & push-in:



cage clamp:



Compatible housing



HB 48
page 402

EPIC® HA series

Compact screw-terminated inserts for medium power & control applications



Similar to the HBE series inserts but more compact, EPIC® HA series inserts are used whenever space is limited. EPIC® HA 3/4 inserts and housings provide the smallest possible footprint in a 10A power connector. HA 10-48 inserts are unique because of their shortened ground straps, which still allow for a wire cross-section up to 2.5 mm². HA 3-48 screw-terminated inserts fit into EPIC® HA series housings. A modified EPIC® HB 48 housing can fit 64 contacts.

Technical data

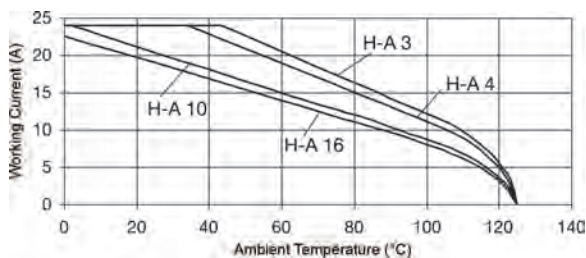
Number of contacts:	3, 4, 10, 16, 32, 48, 64 (+PE)	Rated current:	
Temperature range:	-40°C to +100°C	- UL:	
- short-term:	up to +125°C	- EPIC® HA 3/4:	10A
Pollution level:	3	- EPIC® HA 10 - 64:	14A
Dimensioning transient:	4 kV	- CSA:	
Mating cycles:	- per DIN EN 61984:2008	- EPIC® HA 3/4:	10A
	Service Life Test: Tested to 100 cycles and passed	- EPIC® HA 10 - 64:	16A
	- per Contact Thermal Test: Useful service up to 500 cycles is possible at rated voltage and current*	- IEC:	
Test voltage:	4 kV	- EPIC® HA 3/4:	23A
Rated voltage:		- EPIC® HA 10 - 64:	16A
- UL:	600V	- SEV:	16A
- CSA:	600V	Wire size:	
- IEC:		- EPIC® HA 3/4:	
- EPIC® HA 3/4:	400V	- solid or stranded wire with ferrule:	20 - 14 AWG (0.5 - 2.5 mm ²)**
- EPIC® HA 10 - 64:	250V	- EPIC® HA 10 - 64:	
- SEV:	250V	- solid or stranded wire with ferrule:	20 - 14 AWG (0.5 - 2.5 mm ²)**
		- for stranded wire without ferrule:	18 - 14 AWG (0.75 - 2.5 mm ²) (requires insert with wire protection)
		Contact material:	silver-plated copper alloy
		Contact resistance:	1.5 - 4 mΩ

* In dry, non-conductive, non-corrosive environments when protected in a housing rated at least IP54 and disconnected for cycling and maintenance only.

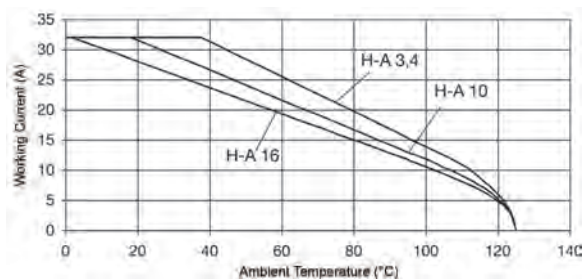
** May be limited, depending on the ferrule crimp profile.

EPIC® HA derating curves

16 AWG (1.5 mm²)

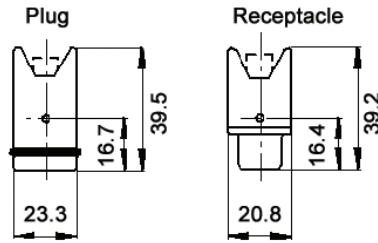


14 AWG (2.5 mm²)

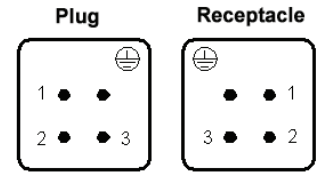


EPIC® HA 3

screw termination: 600V, 10A



all dimensions are in mm

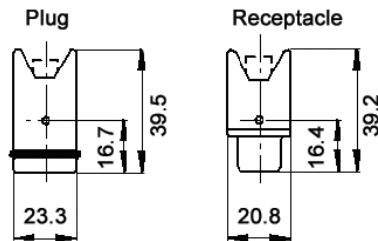


view from cable side

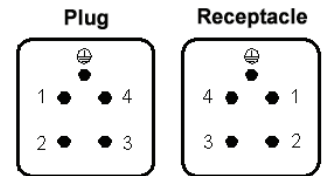
Termination	Plug	Receptacle
screw termination	10420000	10421000

Complete the installationCoding pin:
10451400**Compatible housing**HA 3/4
page 413**Approvals****EPIC® HA 4**

screw termination: 600V, 10A



all dimensions are in mm

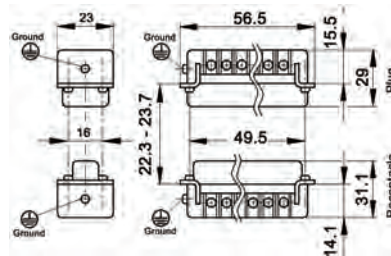


view from cable side

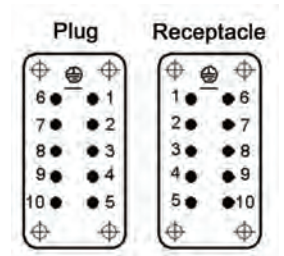
Termination	Plug	Receptacle
screw termination	10431000	10432000

Complete the installationCoding pin:
10451400**Compatible housing**HA 3/4
page 413**Approvals****EPIC® HA 10**

screw termination: 600V, 14A



all dimensions are in mm



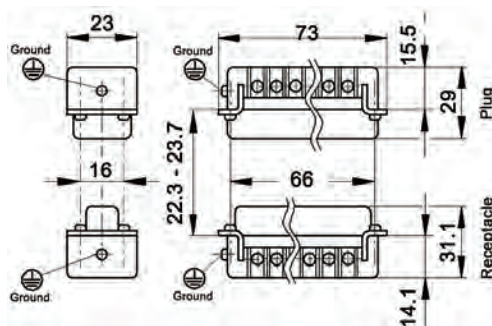
view from cable side

Termination	Wire protection	Plug	Receptacle
screw termination	yes	10440100	10441100
screw termination	no	10440000	10441000

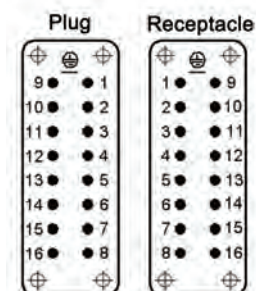
Compatible housingHA 10
page 415**Approvals**

EPIC® HA 16

screw termination: 600V, 14A



all dimensions are in mm



view from cable side

Termination	Wire protection	Plug	Receptacle
screw termination	yes	10530000	10531000
screw termination	no	10532000	10533000

Compatible housing



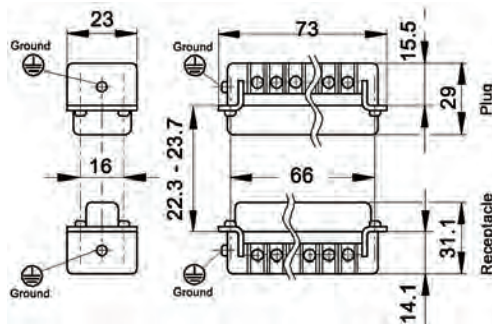
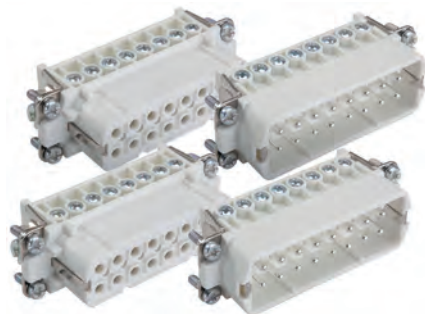
HA 16
page 417

Approvals

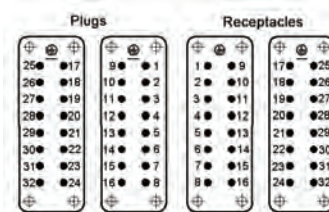


EPIC® HA 32

screw termination: 600V, 14A



all dimensions are in mm



view from cable side

Termination	Wire protection	Contact numbering	Plug	Receptacle
screw termination	yes	# 1 - 16	10530000	10531000
screw termination	yes	# 17 - 32	10540000	10541000
screw termination	no	# 1 - 16	10532000	10533000
screw termination	no	# 17 - 32	10542000	10543000

Compatible housing



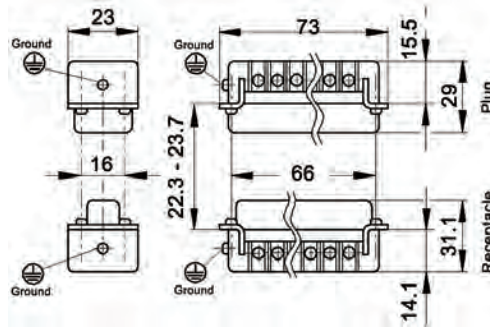
HA 32
page 419

Approvals

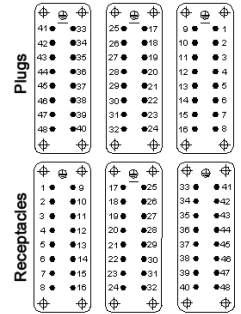


EPIC® HA 48

screw termination: 600V, 14A



all dimensions are in mm



view from cable side

Termination	Wire protection	Contact numbering	Plug	Receptacle
screw termination	yes	# 1 - 16	10530000	10531000
		# 17 - 32	10540000	10541000
		# 33 - 48	10540100	10541100
screw termination	no	# 1 - 16	10532000	10533000
		# 17 - 32	10542000	10543000
		# 33 - 48	10542100	10543100

Compatible housing



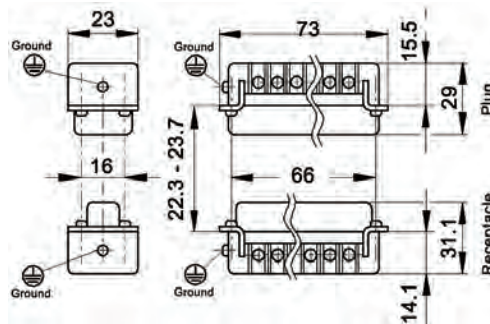
HA 48
page 421

Approvals

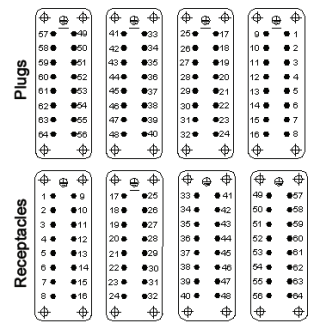


EPIC® HA 64

screw termination: 600V, 14A



all dimensions are in mm



view from cable side

Termination	Wire protection	Contact numbering	Plug	Receptacle
screw termination	yes	# 1 - 16	10530000	10531000
		# 17 - 32	10540000	10541000
		# 33 - 48	10540100	10541100
		# 49 - 64	105300LE64	105310LE64

Compatible housing



HA 64
page 422

Approvals



EPIC® HQ series

Compact crimp-terminated inserts for power & control applications



The EPIC® HQ insert series fills the gap between the smallest-configuration HA series and HD series inserts. The HQ 5 insert provides more contacts (5+PE and 12+PE) in the same size housing as the HA 3 and HA 4 inserts, with higher current and voltage capability than the HD 7 and HD 8 inserts. The HQ 12 insert provides 50% more contacts than the HD 8 insert in the same compact size. They are ideal for applications in the transportation and automotive industries, and in many others where a compact, rugged industrial connector is needed.

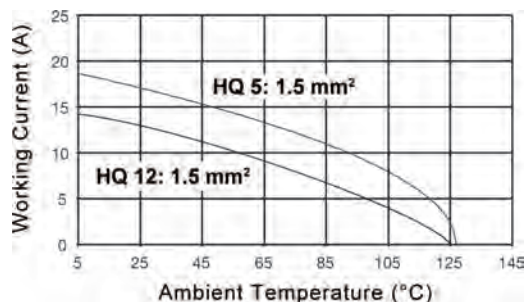
Technical data

Number of contacts:	5, 12 (+PE)	Rated voltage:	
		- UL/CSA:	600V
Temperature range:	-40°C to +100°C	- IEC:	400V
- short-term:	up to +125°C		
Pollution level:	3	Rated current:	
		- UL/CSA:	
Mating cycles:	- per DIN EN 61984:2008	- 5-pole:	16A
	Service Life Test: Tested to	- 12-pole:	14A (UL)
	100 cycles and passed		10A (CSA)
	- per Contact Thermal Test: Useful	Wire size:	
	service up to 500 cycles is possible	- 5-pole:	20 - 14 AWG (0.5 - 2.5 mm ²)
	at rated voltage and current*	- 12-pole:	26 - 14 AWG (0.14 - 2.5 mm ²)
Test voltage:		Contact material:	silver- or gold-plated copper alloy
- 5-pole:	4 kV	Contact resistance:	≤ 2 mΩ
- 12-pole:	6 kV		

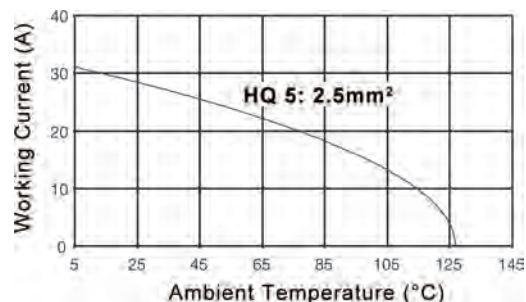
* In dry, non-conductive, non-corrosive environments when protected in a housing rated at least IP54 and disconnected for cycling and maintenance only.

EPIC® HQ derating curves

16 AWG (1.5 mm²)



14 AWG (2.5 mm²)

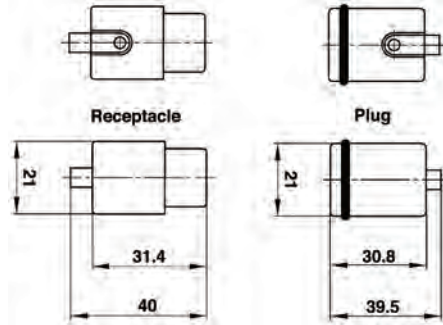


EPIC® HQ 5

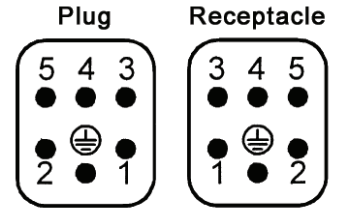
crimp termination: 600V, 16A



contacts sold separately, see below



all dimensions are in mm



view from cable side

Termination	Plug	Receptacle
crimp termination	10431500	10432500

Complete the installation



Coding pin:
10436500

Compatible housing



HA 3/4
page 413

Approvals



2.5 mm contacts

Machined contacts for EPIC® HQ series inserts



Contact tools



Crimp tool:
11147000

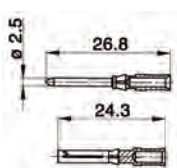


Crimp dies:
11147100



Locator:
11147200

for removal of contacts, use a slotted screwdriver; no special tool is necessary



contacts sold in bags of 100

Contact size		Stripping length (mm)		# of marking tracks	Bag of 100 silver contacts		Bag of 100 gold contacts	
mm²	AWG	pin	socket		pin	socket	pin	socket
0.5	20	7.4	7.3	—	11190000	11195000	11192000	11197000
0.75 - 1.0	18	7.4	7.3	1	11190100	11195100	11192100	11197100
1.5	16	7.4	7.3	2	11190200	11195200	11192200	11197200
2.5	14	7.4	7.3	3	11190300	11195300	—	—
4.0	12	7.4	7.3	—	11190400	11195400	—	—

If not otherwise specified, all values relating to the product are nominal values.
Photographs are not to scale and are not true representations of the products in question.

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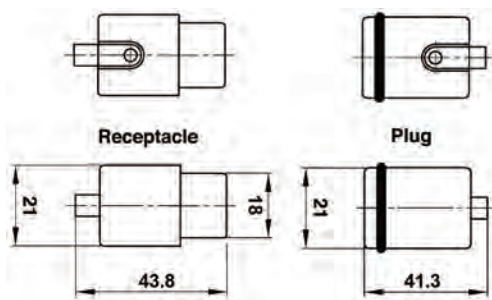
Courtesy of Steven Engineering, Inc - (800) 258-9200 - sales@steveneng.com - www.stevenengineering.com

EPIC® HQ 12

crimp termination: 600V, 14A



contacts sold separately, see below



all dimensions are in mm



view from cable side

Termination	Plug	Receptacle
crimp termination	44424049	44424050

Complete the installationCoding pin:
44424052**Compatible housing**HA 3/4
page 413**Approvals****1.6 mm contacts****Machined contacts for EPIC® HQ series inserts**

contacts sold in bags of 100

Contact size		Stripping length mm	# of marking tracks	Bag of 100 silver contacts		Bag of 100 gold contacts	
mm ²	AWG			pin	socket	pin	socket
0.14 - 0.37	26 - 22	8	1	13162000	13163000	13162500	13163500
0.5	20	8	2	13162100	13163100	13162600	13163600
0.75 - 1.0	18	8	3	13162200	13163200	13162700	13163700
1.5	16	8	4	13162300	13163300	13162800	13163800
2.5	14	8	5	13162400	13163400	13162900	13163900

Contact toolsCrimp tool:
11147000Crimp dies:
11147100Locator:
11147200Removal tool:
11161000

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Photographs are not to scale and are not true representations of the products in question.

EPIC® STA series

Inserts with solid spring-designed contacts for low voltage control applications



EPIC® STA series inserts with solid spring-designed contacts are used extensively in the construction of devices and in control units, laboratories, and withdrawable unit design. These inserts are available with screw or solder termination, and fit into EPIC® HA series housings.

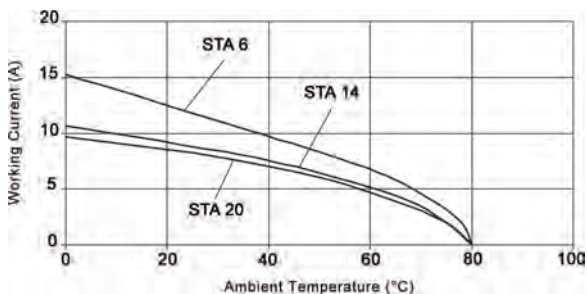
Technical data

Number of contacts:	6, 14, 20, 40	Rated current:	
		- UL/CSA; IEC:	10A
Temperature range:	-40°C to +80°C	Wire size:	
		- solder termination:	up to 16 AWG (1.5 mm ²)
Pollution level:	2	- screw termination:	20 - 16 AWG (0.5 - 1.5 mm ²)
Mating cycles:	- per DIN EN 61984:2008 Service Life Test: Tested to 100 cycles and passed	Contact material:	silver-plated copper alloy
Test voltage:	1 kV	Contact resistance:	< 2 mΩ
Rated voltage:			
- UL/CSA:	48V		
- IEC:	60V		

* In dry, non-conductive, non-corrosive environments when protected in a housing rated at least IP54 and disconnected for cycling and maintenance only.

EPIC® STA derating curves

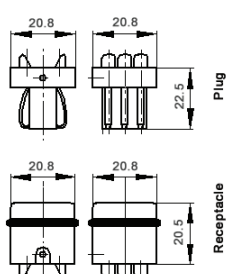
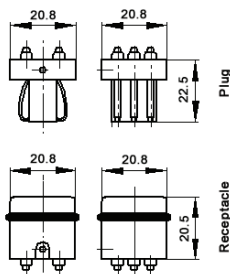
18 AWG (1 mm²)



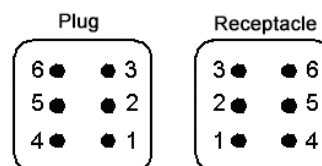
EPIC® STA 6

Screw termination: 48V, 10A

Solder termination: 48V, 10A



all dimensions are in mm



view from cable side

Termination	Plug	Receptacle
screw termination	10488100	10486100
solder termination	10487200	10485200

Compatible housing



HA 3/4
page 413

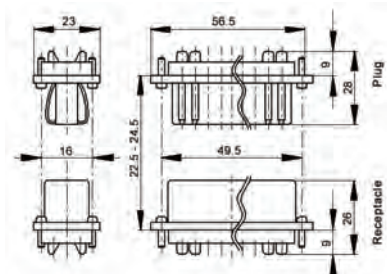
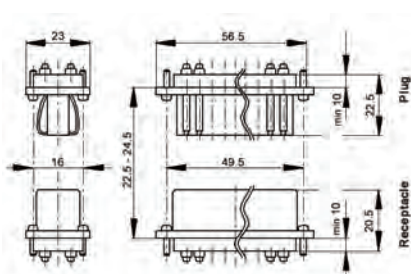
Approvals



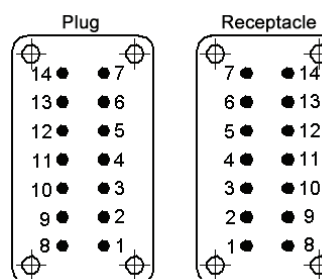
EPIC® STA 14

Screw termination: 48V, 10A

Solder termination: 48V, 10A



all dimensions are in mm



view from cable side

Termination	Plug	Receptacle
screw termination	10493100	10491100
solder termination	10492200	10490200

Compatible housing



HA 10
page 415

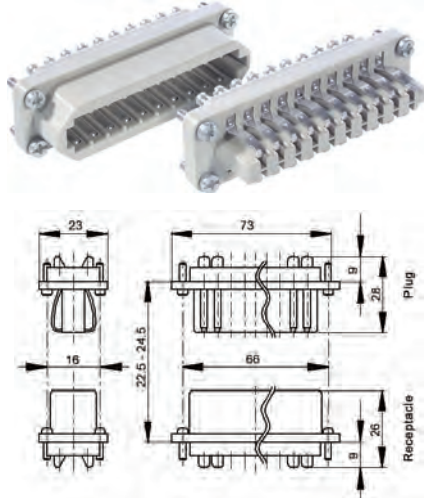
Approvals



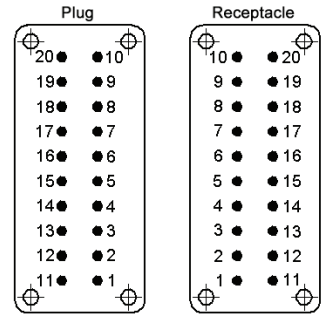
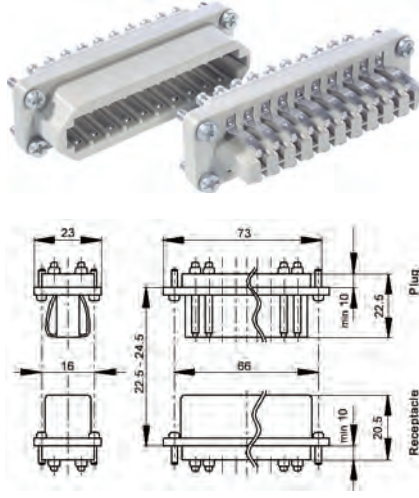
EPIC® STA 20

Screw termination: 48V, 10A

Solder termination: 48V, 10A



all dimensions are in mm



view from cable side

Termination	Plug	Receptacle
screw termination	10503100	10501100
solder termination	10502200	10500200

Compatible housing



HA 16
page 417

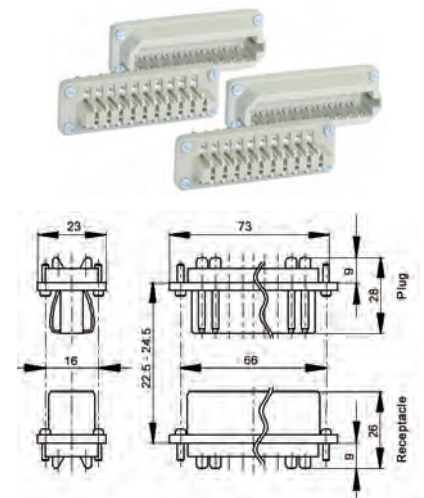
Approvals



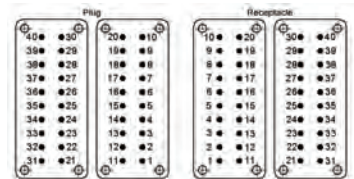
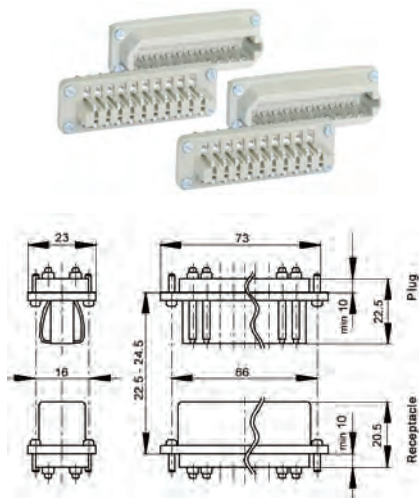
EPIC® STA 40

Screw termination: 48V, 10A

Solder termination: 48V, 10A



all dimensions are in mm



view from cable side

Termination	Plug	Receptacle
screw termination	10503100 (x2)	10501100 (x2)
solder termination	10502200 (x2)	10500200 (x2)

x2 STA 20 inserts, use two part numbers

Compatible housing



HA 32
page 419

Approvals



EPIC® HEE series

Inserts with high crimp contact density for power & control applications



The EPIC® HEE series of crimp-terminated inserts is a high-density companion to the popular EPIC® HBE series. Offering the same voltage and current ratings (600V AC; 16A), it provides a significant increase in contact density (a 67%- 100% increase) within the same footprint dimensions as an equivalent-sized HBE insert. EPIC® HEE inserts are ideal for applications in the automotive industry and any other industrial application requiring high density contacts and immunity to vibration.

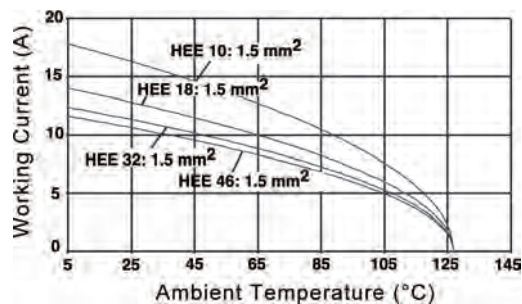
Technical data

Number of contacts:	10, 18, 32, 46, 64, 92 (+PE)	Test voltage:	6 kV
Temperature range: - short-term:	-40°C to +100°C up to +125°C	Rated voltage: - UL/CSA: - IEC:	600V 500V
Pollution level:	3	Rated current:	16A
Mating cycles:	- per DIN EN 61984:2008 Service Life Test: Tested to 100 cycles and passed - per Contact Thermal Test: Useful service up to 500 cycles is possible at rated voltage and current*	Wire size:	20 - 12 AWG (0.5 - 4 mm ²)
		Contact material:	silver- or gold-plated copper alloy
		Contact resistance:	≤ 2 mΩ

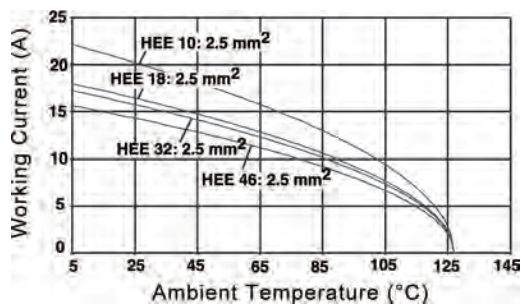
* In dry, non-conductive, non-corrosive environments when protected in a housing rated at least IP54 and disconnected for cycling and maintenance only.

EPIC® HEE derating curves

16 AWG (1.5 mm²)



14 AWG (2.5 mm²)

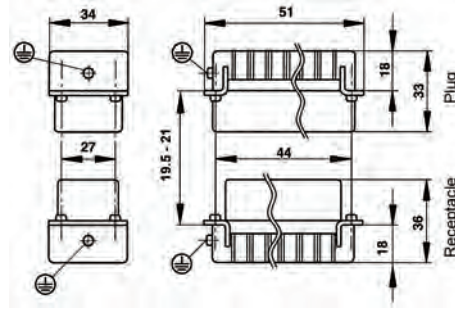


EPIC® HEE 10

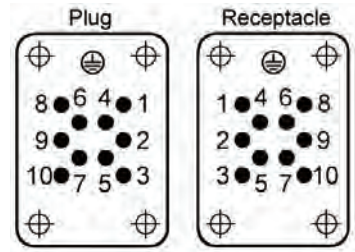
crimp termination: 600V, 16A



contacts sold separately, see below



all dimensions are in mm



view from cable side

Termination	Plug	Receptacle
crimp termination	10180400	10181400

Compatible housing



HB 6
page 379

Approvals

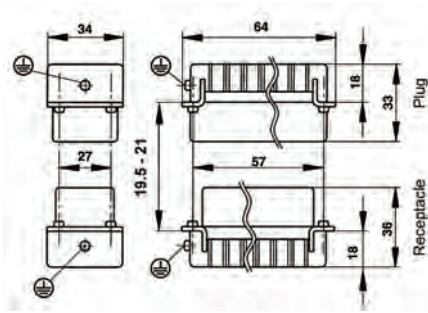


EPIC® HEE 18

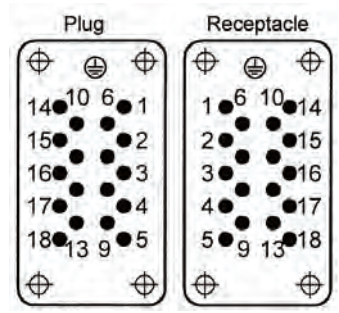
crimp termination: 600V, 16A



contacts sold separately, see below



all dimensions are in mm



view from cable side

Termination	Plug	Receptacle
crimp termination	10182400	10183400

Compatible housing



HB 10
page 382

Approvals



2.5 mm contacts

Machined contacts for EPIC® HEE series inserts



Contact tools



Crimp tool:
11147000



Crimp dies:
11147100



Locator:
11147200

for removal of contacts, use a slotted screwdriver; no special tool is necessary



contacts sold in bags of 100

Contact size		Stripping length (mm)		# of marking tracks	Bag of 100 silver contacts		Bag of 100 gold contacts	
mm²	AWG	pin	socket		pin	socket	pin	socket
0.5	20	7.4	7.3	—	11190000	11195000	11192000	11197000
0.75 - 1.0	18	7.4	7.3	1	11190100	11195100	11192100	11197100
1.5	16	7.4	7.3	2	11190200	11195200	11192200	11197200
2.5	14	7.4	7.3	3	11190300	11195300	—	—
4.0	12	7.4	7.3	—	11190400	11195400	—	—

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Photographs are not to scale and are not true representations of the products in question.

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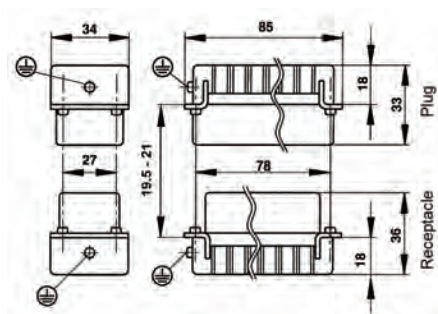
Courtesy of Steven Engineering, Inc - (800) 258-9200 - sales@steveneng.com - www.stevenengineering.com

EPIC® HEE 32

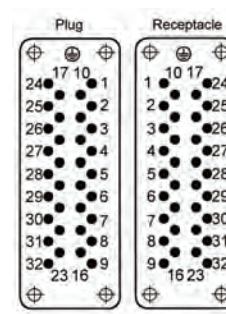
crimp termination: 600V, 16A



contacts sold separately, see below



all dimensions are in mm



view from cable side

Termination	Plug	Receptacle
crimp termination	10184400	10185400

Compatible housing



HB 16
page 388

Approvals

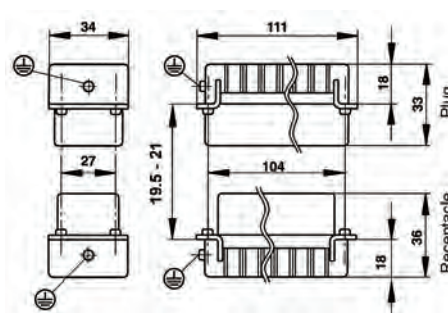


EPIC® HEE 46

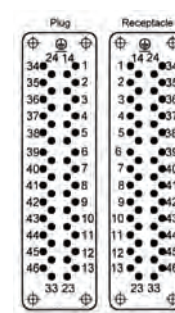
crimp termination: 600V, 16A



contacts sold separately, see below



all dimensions are in mm



view from cable side

Termination	Plug	Receptacle
crimp termination	10186400	10187400

Compatible housing



HB 24
page 394

Approvals



2.5 mm contacts

Machined contacts for EPIC® HEE series inserts



Contact tools



Crimp tool:
11147000

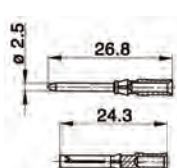


Crimp dies:
11147100



Locator:
11147200

for removal of contacts, use a slotted screwdriver; no special tool is necessary



contacts sold in bags of 100

Contact size		Stripping length (mm)		# of marking tracks	Bag of 100 silver contacts		Bag of 100 gold contacts	
mm²	AWG	pin	socket		pin	socket	pin	socket
0.5	20	7.4	7.3	—	11190000	11195000	11192000	11197000
0.75-1.0	18	7.4	7.3	1	11190100	11195100	11192100	11197100
1.5	16	7.4	7.3	2	11190200	11195200	11192200	11197200
2.5	14	7.4	7.3	3	11190300	11195300	—	—
4.0	12	7.4	7.3	—	11190400	11195400	—	—

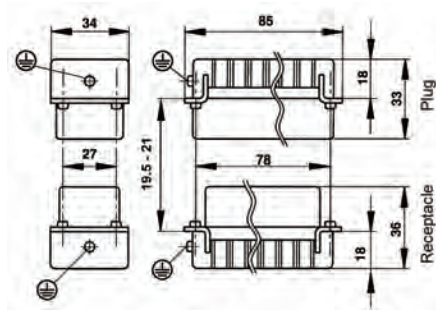
If not otherwise specified, all values relating to the product are nominal values.
Photographs are not to scale and are not true representations of the products in question.

EPIC® HEE 64

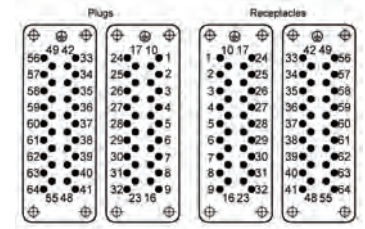
crimp termination: 600V, 16A



contacts sold separately, see below



all dimensions are in mm



view from cable side

Termination	Contact numbering	Plug	Receptacle
crimp termination	#1-32	10184400	10185400
	#33-64	10184500	10185500

Compatible housing



HB 32
page 400

Approvals

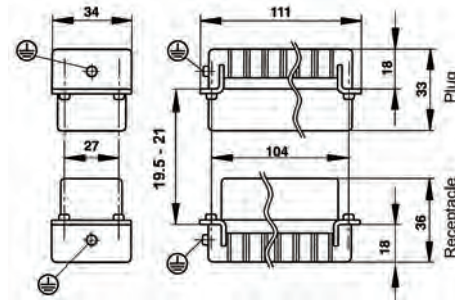


EPIC® HEE 92

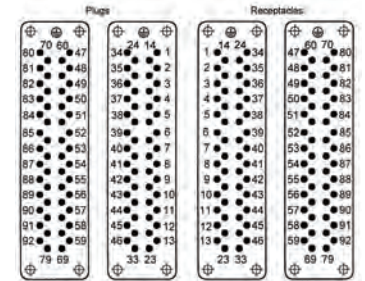
crimp termination: 600V, 16A



contacts sold separately, see below



all dimensions are in mm



view from cable side

Termination	Contact numbering	Plug	Receptacle
crimp termination	#1-46	10186400	10187400
	#47-92	10186500	10187500

Compatible housing



HB 48
page 402

Approvals



2.5 mm contacts

Machined contacts for EPIC® HEE series inserts



Contact tools



Crimp tool:
11147000

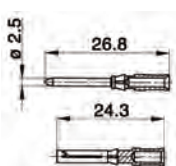


Crimp dies:
11147100



Locator:
11147200

for removal of contacts, use a slotted screwdriver; no special tool is necessary



contacts sold in bags of 100

Contact size		Stripping length (mm)		# of marking tracks	Bag of 100 silver contacts		Bag of 100 gold contacts	
mm²	AWG	pin	socket		pin	socket	pin	socket
0.5	20	7.4	7.3	—	11190000	11195000	11192000	11197000
0.75-1.0	18	7.4	7.3	1	11190100	11195100	11192100	11197100
1.5	16	7.4	7.3	2	11190200	11195200	11192200	11197200
2.5	14	7.4	7.3	3	11190300	11195300	—	—
4.0	12	7.4	7.3	—	11190400	11195400	—	—

If not otherwise specified, all values relating to the product are nominal values.
Photographs are not to scale and are not true representations of the products in question.

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Courtesy of Steven Engineering, Inc - (800) 258-9200 - sales@steveneng.com - www.stevenengineering.com

EPIC® HBS series

Screw-terminated inserts for high-current power applications



EPIC® HBS series inserts are characterized by their higher current-carrying capacity: a little more than twice the capacity of the EPIC® HBE series. A secure electrical connection can be made by simple screw termination for cables up to 10 AWG.

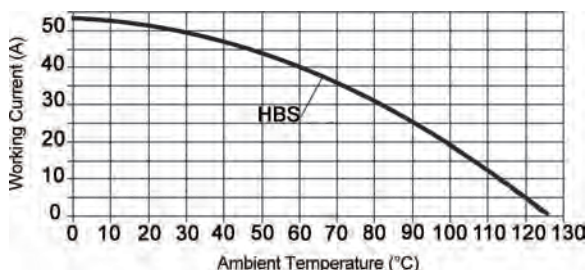
Technical data

Number of contacts:	6, 12 (+PE)	Test voltage:	6 kV
Temperature range: - short-term:	-40°C to +100°C up to +125°C	Rated voltage: - UL/CSA: - IEC:	600V 500V
Pollution level:	3	Rated current: - UL/CSA; IEC:	35A
Mating cycles:	- per DIN EN 61984:2008 Service Life Test: Tested to 100 cycles and passed - per Contact Thermal Test: Useful service up to 500 cycles is possible at rated voltage and current*	Wire size:	20 - 10 AWG (0.5 - 6 mm ²)
		Contact material:	silver-plated copper alloy
		Contact resistance:	< 2 mΩ

* In dry, non-conductive, non-corrosive environments when protected in a housing rated at least IP54 and disconnected for cycling and maintenance only.

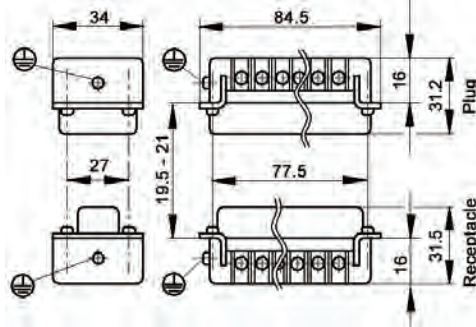
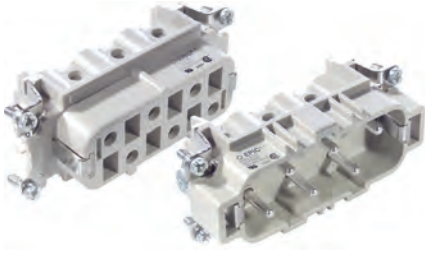
EPIC® HBS derating curves

10 AWG (6 mm²)

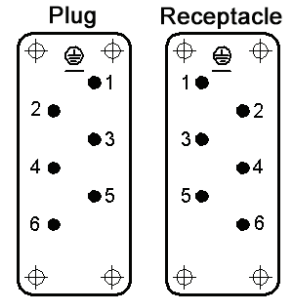


EPIC® HBS 6

screw termination: 600V, 35A



all dimensions are in mm



view from cable side

Termination	Wire protection	Plug	Receptacle
screw termination	yes	10170000	10171000

Compatible housing



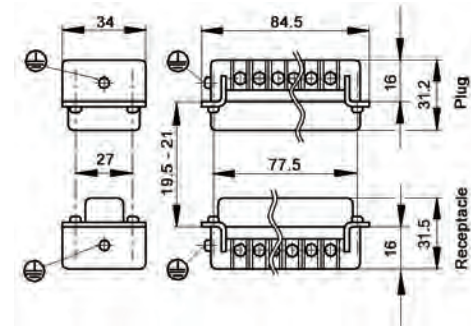
HB 16
page 388

Approvals

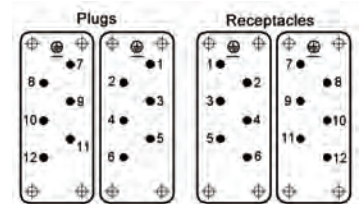


EPIC® HBS 12

screw termination: 600V, 35A



all dimensions are in mm



view from cable side

Termination	Wire protection	Contact numbering	Plug	Receptacle
screw termination	yes	#1-6	10170000	10171000
		#7-12	10170600	10171600

Compatible housing



HB 32
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Approvals



EPIC® Power HS series

Compact axial screw-terminated inserts for high-current power applications



EPIC® Power HS series inserts are characterized by their very high current-carrying capacity in a compact design. A secure electrical connection can be made by simple axial screw termination for cables up to 8 AWG.

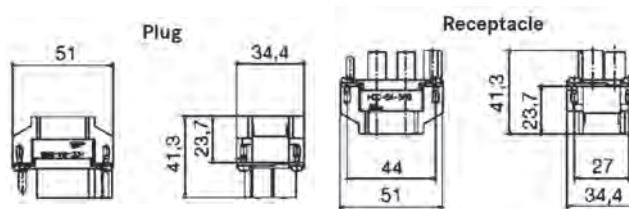
Technical data

Number of contacts:	4 (+PE)	Test voltage:	8 kV
Temperature range:	-40°C to +125°C	Rated voltage: - UL/CSA:	1000V
Pollution level:	3	Rated current: - UL/CSA; IEC:	65A
Mating cycles:	- per DIN EN 61984:2008 Service Life Test: Tested to 100 cycles and passed - per Contact Thermal Test: Useful service up to 500 cycles is possible at rated voltage and current*	Wire size:	14 - 8 AWG (2.5 - 10 mm ²)
		Contact material:	silver-plated copper alloy
		Contact resistance:	< 1 mΩ

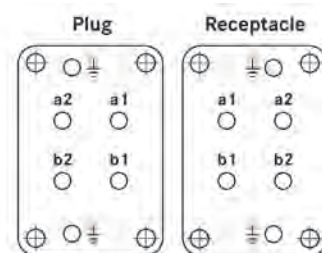
* In dry, non-conductive, non-corrosive environments when protected in a housing rated at least IP54 and disconnected for cycling and maintenance only.

EPIC® Power HS 4

axial screw termination: 1000V, 65A



all dimensions are in mm



view from cable side

Termination	Plug	Receptacle
axial screw termination	10407910	10407900

#2 hex wrench is required for axial termination of wire.

Contact tools



Axial screw:
44424028

Compatible housing



HB 6
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Approvals



EPIC® HBVE series

High-voltage screw-terminated inserts with two switch contacts for power applications



EPIC® HBVE series inserts handle higher voltage and are equipped with two switch contacts. These contacts “make” after the working contacts are engaged and “break” before the working contacts disengage. They can be wired as part of an electrical interlock circuit to ensure that power to the working contacts is turned off during connector mating and unmating.

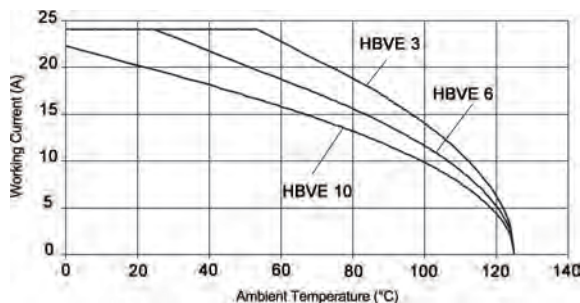
Technical data

Number of contacts:	3+2+PE, 6+2+PE, 10+2+PE	Test voltage:	6 kV
Temperature range:	-40°C to +100°C	Rated voltage:	
- short-term:	up to +125°C	- UL/CSA:	600V
Pollution level:	3	- IEC:	630V
Mating cycles:	- per DIN EN 61984:2008 Service Life Test: Tested to 100 cycles and passed - per Contact Thermal Test: Useful service up to 500 cycles is possible at rated voltage and current*	Rated current:	
		- UL/CSA; IEC:	16A
		Wire size:	20 - 14 AWG (0.5 - 2.5 mm ²)
		Contact material:	silver-plated copper alloy
		Contact resistance:	< 2 mΩ

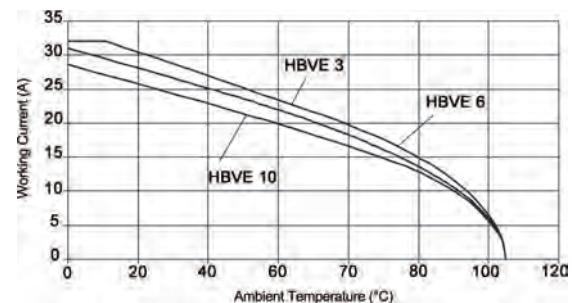
* In dry, non-conductive, non-corrosive environments when protected in a housing rated at least IP54 and disconnected for cycling and maintenance only.

EPIC® HBVE derating curves

16 AWG (1.5 mm²)

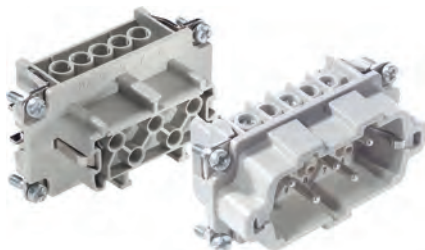


14 AWG (2.5 mm²)

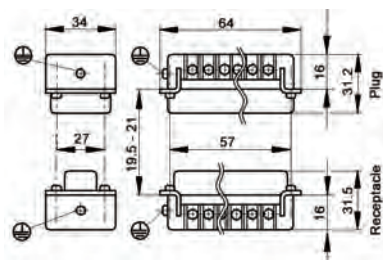


EPIC® HBVE 3

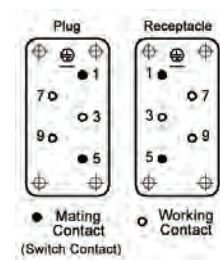
screw termination: 600V, 16A



contacts sold separately, see below



all dimensions are in mm



view from cable side

Termination	Wire protection	Plug	Receptacle
screw termination	yes	10210010	10211010
screw termination	no	10210110	10211110

Compatible housing



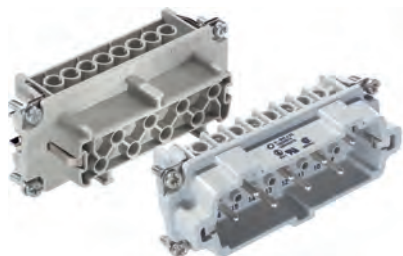
HB 10
page 382

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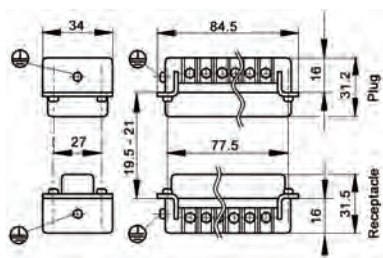


EPIC® HBVE 6

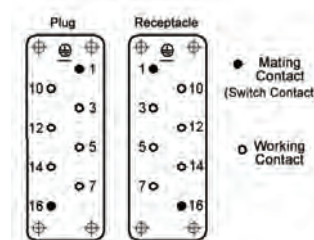
screw termination: 600V, 16A



contacts sold separately, see below



all dimensions are in mm



view from cable side

Termination	Wire protection	Plug	Receptacle
screw termination	yes	10239010	10240010
screw termination	no	10239110	10240110

Compatible housing



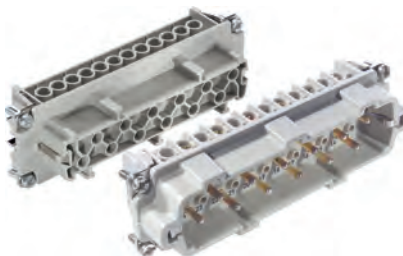
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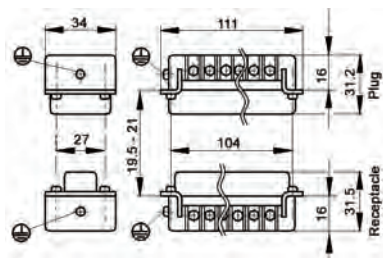


EPIC® HBVE 10

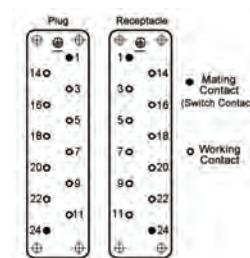
screw termination: 600V, 16A



contacts sold separately, see below



all dimensions are in mm



view from cable side

Termination	Wire protection	Plug	Receptacle
screw termination	yes	10270010	10271010
screw termination	no	10270110	10271110

Compatible housing



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Approvals



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EPIC® HD series

Compact high-density crimp-terminated inserts for control applications



EPIC® HD series inserts are designed for use in industries where large numbers of contacts are required and limited space is available. These high-density crimp inserts are available with stamped & formed or machined contacts and fit into EPIC® HA & HB series housings.

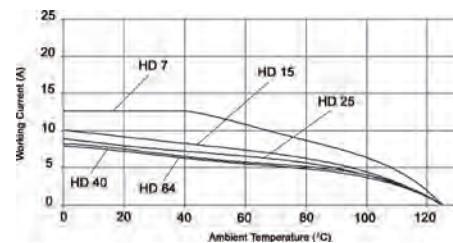
Technical data

Number of contacts:	7, 8, 15, 25, 40, 50, 64, 80, 128 (+PE)	Rated voltage:	
		- UL/CSA:	250V
Temperature range:	-40°C to +100°C	- IEC EPIC® HD 7 - 8:	
- short-term:	up to +125°C	- in metal housing:	24V AC/60V DC
		- in plastic housing:	250V
Pollution level:	3	- IEC EPIC® HD 15 - 128:	250V
Mating cycles:	- per DIN EN 61984:2008 Service Life Test: Tested to 100 cycles and passed - per Contact Thermal Test: Useful service up to 500 cycles is possible at rated voltage and current*	Test voltage:	2.5 kV
Rated current:		Wire size:	26 - 14 AWG (0.14 - 2.5 mm²)
- UL/CSA, IEC:	10A	Contact material:	silver- or gold-plated copper alloy
		Contact resistance:	< 2 mΩ
		- EPIC® HD 40, 64 - 128 (machined contacts):	< 3 mΩ

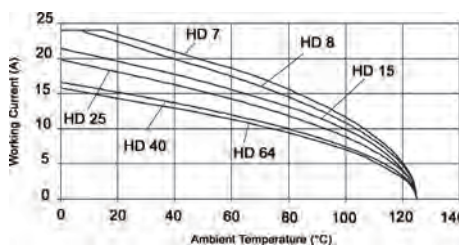
* In dry, non-conductive, non-corrosive environments when protected in a housing rated at least IP54 and disconnected for cycling and maintenance only.

EPIC® HD derating curves

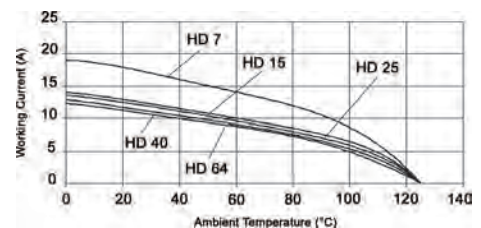
20 AWG (0.5 mm²)
machined contacts



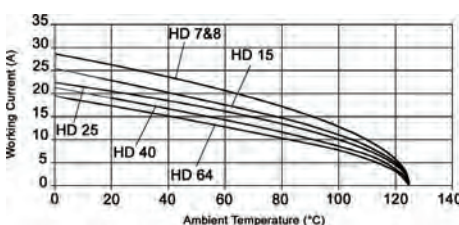
16 AWG (1.5 mm²)
machined contacts



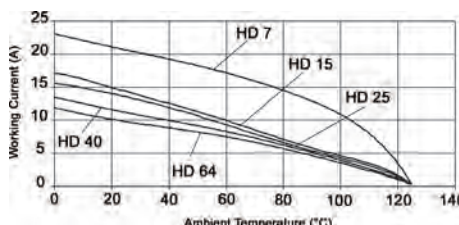
16 AWG (1.5 mm²)
stamped & formed contacts



14 AWG (2.5 mm²)
machined contacts

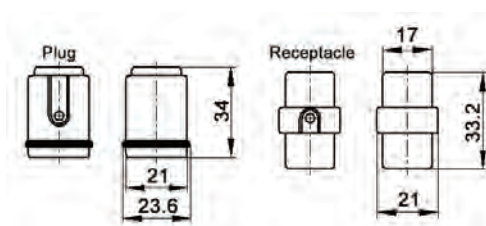


14 AWG (2.5 mm²)
stamped & formed contacts

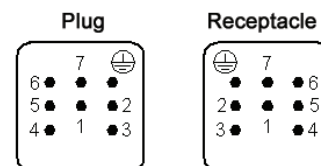


EPIC® HD 7**Crimp termination for machined contacts: 250V, 10A**

contacts sold separately, see below



all dimensions are in mm



view from cable side

Termination	Contact type	Plug	Receptacle
crimp termination	machined	11250500	11251500

Compatible housingHA 3/4
page 413**Approvals****1.6 mm contacts****Machined contacts for EPIC® HD series inserts**

contacts sold in bags of 100

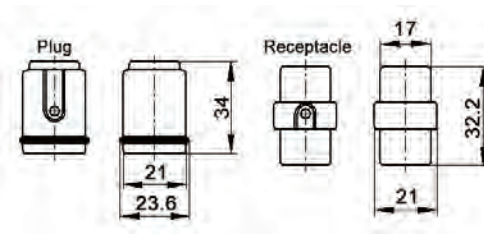
Contact size		Stripping length mm	# of marking tracks	Bag of 100 silver contacts		Bag of 100 gold contacts	
mm ²	AWG			pin	socket	pin	socket
0.14 - 0.37	26 - 22	8	1	13162000	13163000	13162500	13163500
0.5	20	8	2	13162100	13163100	13162600	13163600
0.75 - 1.0	18	8	3	13162200	13163200	13162700	13163700
1.5	16	8	4	13162300	13163300	13162800	13163800
2.5	14	8	5	13162400	13163400	13162900	13163900

Contact toolsCrimp tool:
11147000Crimp dies:
11147100Locator:
11147200Removal tool:
11161000

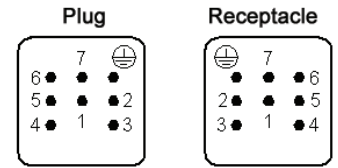
If not otherwise specified, all values relating to the product are nominal values.
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EPIC® HD 7**Crimp-terminated for stamped & formed contacts: 250V, 10A**

contacts sold separately, see below



all dimensions are in mm

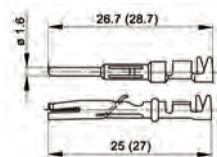


view from cable side

Termination	Contact type	Plug	Receptacle
crimp termination	stamped & formed	11250000	11251000

Compatible housingHA 3/4
page 413**Approvals****1.6 mm contacts****Stamped & formed contacts for EPIC® HD series inserts**

contacts sold in bags of 100 or 1 reel

Contact toolsCrimp tool:
11147000Locator:
11147300Removal tool:
11161000Crimp dies:
0.14-0.5 mm²: 11147170
0.5-1.5 mm²: 11147180
1.5-2.5 mm²: 11147190Crimp tool, die & locator:
0.14-0.5 mm²: 11147004
0.5-1.5 mm²: 11147005
1.5-2.5 mm²: 11147006

Contact size		Stripping length mm	Bag of 100 silver contacts		Bag of 100 gold contacts		Reel of 100 silver contacts: left-hand feed		Reel of 200 silver contacts: left-hand feed	
mm²	AWG		pin	socket	pin	socket	pin	socket	pin	socket
0.14-0.5	26-20	2.5-0.5	11241100	11231100	11243100	11233100	—	—	11240700	11230700
0.5-1.5	20-16	3.5-0.5	11221000	11236100	11221300	11238100	—	—	11220700	11235700
1.5-2.5	16-14	3.5-0.5	11223500	11228500	—	—	11223000	11228000	—	—

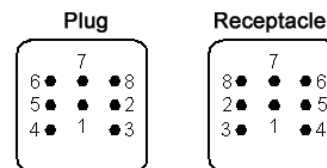
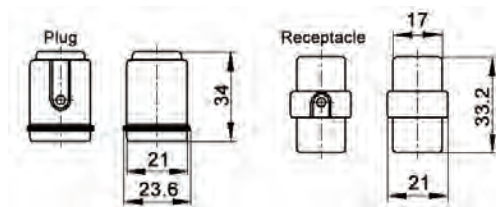
Contact size		Stripping length mm	Reel of 2000 silver contacts: right-hand feed		Reel of 2000 gold contacts: right-hand feed		Reel of 2000 silver contacts: left-hand feed		Reel of 2000 gold contacts: left-hand feed	
mm²	AWG		pin	socket	pin	socket	pin	socket	pin	socket
0.14-0.5	26-20	2.5-0.5	11240000	11230000	—	—	11240400	11230400	11240500	11230500
0.5-1.5	20-16	3.5-0.5	11220000	11235000	11220100	11235200	11226000	11226500	—	—
1.5-2.5	16-14	3.5-0.5	—	—	—	—	11222700	11227700	—	—

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Photographs are not to scale and are not true representations of the products in question.

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EPIC® HD 8

Crimp termination for machined contacts: 250V, 10A



contacts sold separately, see below

all dimensions are in mm

view from cable side

Termination	Contact type	Plug	Receptacle
crimp termination	machined	11252500	11253500

Compatible housing



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Approvals



1.6 mm contacts

Machined contacts for EPIC® HD series inserts



contacts sold in bags of 100

Contact size		Stripping length mm	# of marking tracks	Bag of 100 silver contacts		Bag of 100 gold contacts	
mm²	AWG			pin	socket	pin	socket
0.14 - 0.37	26 - 22	8	1	13162000	13163000	13162500	13163500
0.5	20	8	2	13162100	13163100	13162600	13163600
0.75 - 1.0	18	8	3	13162200	13163200	13162700	13163700
1.5	16	8	4	13162300	13163300	13162800	13163800
2.5	14	8	5	13162400	13163400	13162900	13163900

Contact tools



Crimp tool:
11147000



Crimp dies:
11147100



Locator:
11147200



Removal tool:
11161000

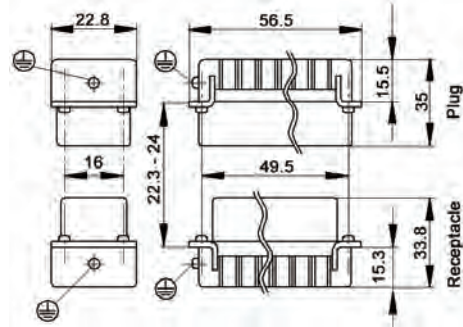
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EPIC® HD 15

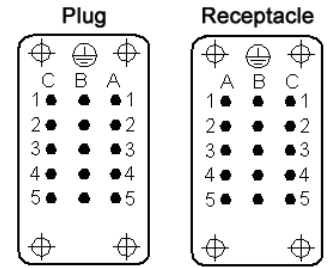
Crimp termination for machined contacts: 250V, 10A



contacts sold separately, see below



all dimensions are in mm



view from cable side

Termination	Contact type	Plug	Receptacle
crimp termination	machined	11283200	11282200

Compatible housing



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Approvals



1.6 mm contacts

Machined contacts for EPIC® HD series inserts



contacts sold in bags of 100

Contact size		Stripping length mm	# of marking tracks	Bag of 100 silver contacts		Bag of 100 gold contacts	
mm²	AWG			pin	socket	pin	socket
0.14 - 0.37	26 - 22	8	1	13162000	13163000	13162500	13163500
0.5	20	8	2	13162100	13163100	13162600	13163600
0.75 - 1.0	18	8	3	13162200	13163200	13162700	13163700
1.5	16	8	4	13162300	13163300	13162800	13163800
2.5	14	8	5	13162400	13163400	13162900	13163900

Contact tools



Crimp tool:
11147000



Crimp dies:
11147100



Locator:
11147200



Removal tool:
11161000

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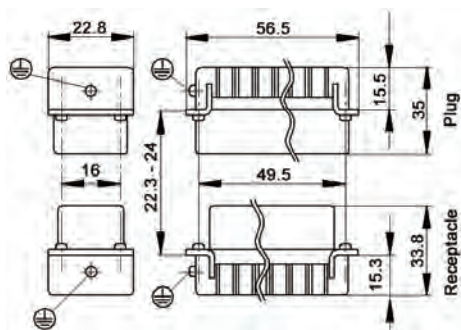
Courtesy of Steven Engineering, Inc - (800) 258-9200 - sales@steveneng.com - www.stevenengineering.com

EPIC® HD 15

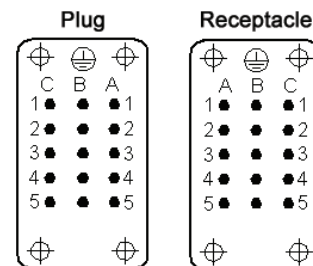
Crimp-terminated for stamped & formed contacts: 250V, 10A



contacts sold separately, see below



all dimensions are in mm



view from cable side

Termination	Contact type	Plug	Receptacle
crimp termination	stamped & formed	11255000	11256000

Compatible housing

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Approvals



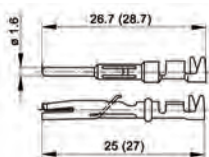
1.6 mm contacts

Stamped & formed contacts for EPIC® HD series inserts



contacts sold in bags of 100 or 1 reel

Contact tools

Crimp tool:
11147000Locator:
11147300Removal tool:
11161000Crimp dies:
0.14 - 0.5 mm²: 11147170
0.5 - 1.5 mm²: 11147180
1.5 - 2.5 mm²: 11147190Crimp tool, die & locator:
0.14 - 0.5 mm²: 11147004
0.5 - 1.5 mm²: 11147005
1.5 - 2.5 mm²: 11147006

Contact size		Stripping length mm	Bag of 100 silver contacts		Bag of 100 gold contacts		Reel of 100 silver contacts: left-hand feed		Reel of 200 silver contacts: left-hand feed	
mm²	AWG		pin	socket	pin	socket	pin	socket	pin	socket
0.14 - 0.5	26 - 20	2.5 - 0.5	11241100	11231100	11243100	11233100	—	—	11240700	11230700
0.5 - 1.5	20 - 16	3.5 - 0.5	11221000	11236100	11221300	11238100	—	—	11220700	11235700
1.5 - 2.5	16 - 14	3.5 - 0.5	11223500	11228500	—	—	11223000	11228000	—	—

Contact size		Stripping length mm	Reel of 2000 silver contacts: right-hand feed		Reel of 2000 gold contacts: right-hand feed		Reel of 2000 silver contacts: left-hand feed		Reel of 2000 gold contacts: left-hand feed	
mm²	AWG		pin	socket	pin	socket	pin	socket	pin	socket
0.14 - 0.5	26 - 20	2.5 - 0.5	11240000	11230000	—	—	11240400	11230400	11240500	11230500
0.5 - 1.5	20 - 16	3.5 - 0.5	11220000	11235000	11220100	11235200	11226000	11226500	—	—
1.5 - 2.5	16 - 14	3.5 - 0.5	—	—	—	—	11222700	11227700	—	—

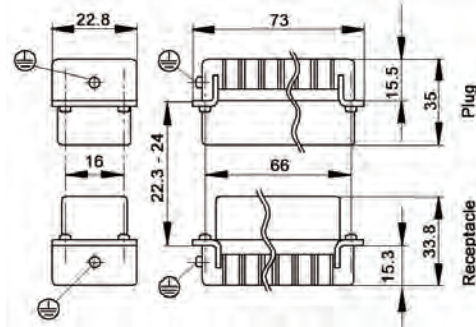
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EPIC® HD 25

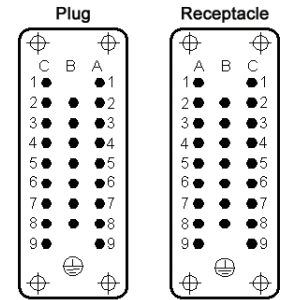
Crimp termination for machined contacts: 250V, 10A



contacts sold separately, see below



all dimensions are in mm



view from cable side

Termination	Contact type	Plug	Receptacle
crimp termination	machined	11283300	11282300

Compatible housing



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Approvals



1.6 mm contacts

Machined contacts for EPIC® HD series inserts



contacts sold in bags of 100

Contact size		Stripping length mm	# of marking tracks	Bag of 100 silver contacts		Bag of 100 gold contacts	
mm²	AWG			pin	socket	pin	socket
0.14 - 0.37	26 - 22	8	1	13162000	13163000	13162500	13163500
0.5	20	8	2	13162100	13163100	13162600	13163600
0.75 - 1.0	18	8	3	13162200	13163200	13162700	13163700
1.5	16	8	4	13162300	13163300	13162800	13163800
2.5	14	8	5	13162400	13163400	13162900	13163900

Contact tools



Crimp tool:
11147000



Crimp dies:
11147100



Locator:
11147200



Removal tool:
11161000

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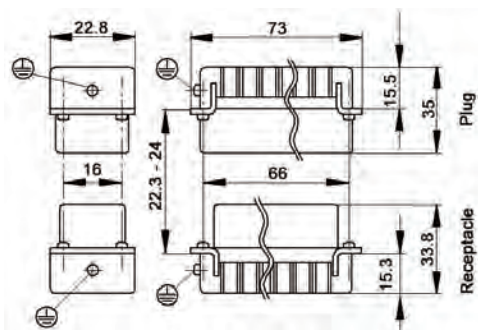
Courtesy of Steven Engineering, Inc - (800) 258-9200 - sales@steveneng.com - www.stevenengineering.com

EPIC® HD 25

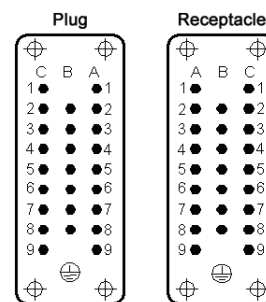
Crimp-terminated for stamped & formed contacts: 250V, 10A



contacts sold separately, see below



all dimensions are in mm



view from cable side

Termination	Contact type	Plug	Receptacle
crimp termination	stamped & formed	11260000	11261000

Compatible housing

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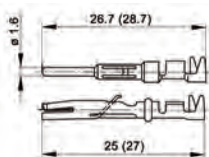
1.6 mm contacts

Stamped & formed contacts for EPIC® HD series inserts



contacts sold in bags of 100 or 1 reel

Contact tools

Crimp tool:
11147000Locator:
11147300Removal tool:
11161000Crimp dies:
0.14 - 0.5 mm²: 11147170
0.5 - 1.5 mm²: 11147180
1.5 - 2.5 mm²: 11147190Crimp tool, die & locator:
0.14 - 0.5 mm²: 11147004
0.5 - 1.5 mm²: 11147005
1.5 - 2.5 mm²: 11147006

Contact size		Stripping length mm	Bag of 100 silver contacts		Bag of 100 gold contacts		Reel of 100 silver contacts: left-hand feed		Reel of 200 silver contacts: left-hand feed	
mm ²	AWG		pin	socket	pin	socket	pin	socket	pin	socket
0.14 - 0.5	26 - 20	2.5 - 0.5	11241100	11231100	11243100	11233100	—	—	11240700	11230700
0.5 - 1.5	20 - 16	3.5 - 0.5	11221000	11236100	11221300	11238100	—	—	11220700	11235700
1.5 - 2.5	16 - 14	3.5 - 0.5	11223500	11228500	—	—	11223000	11228000	—	—

Contact size		Stripping length mm	Reel of 2000 silver contacts: right-hand feed		Reel of 2000 gold contacts: right-hand feed		Reel of 2000 silver contacts: left-hand feed		Reel of 2000 gold contacts: left-hand feed	
mm ²	AWG		pin	socket	pin	socket	pin	socket	pin	socket
0.14 - 0.5	26 - 20	2.5 - 0.5	11240000	11230000	—	—	11240400	11230400	11240500	11230500
0.5 - 1.5	20 - 16	3.5 - 0.5	11220000	11235000	11220100	11235200	11226000	11226500	—	—
1.5 - 2.5	16 - 14	3.5 - 0.5	—	—	—	—	11222700	11227700	—	—

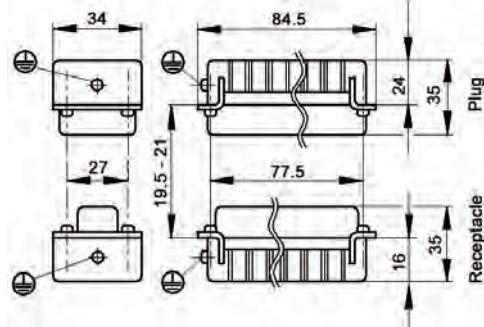
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EPIC® HD 40

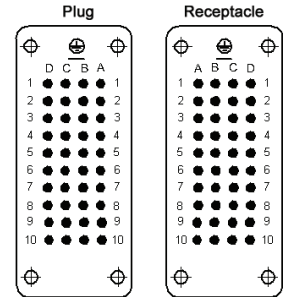
Crimp termination for machined contacts: 250V, 10A



contacts sold separately, see below



all dimensions are in mm



view from cable side

Termination	Contact type	Plug	Receptacle
crimp termination	machined	11265200	11266200

Compatible housing



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Approvals



1.6 mm contacts

Machined contacts for EPIC® HD series inserts



contacts sold in bags of 100

Contact size		Stripping length mm	# of marking tracks	Bag of 100 silver contacts		Bag of 100 gold contacts	
mm²	AWG			pin	socket	pin	socket
0.14 - 0.37	26 - 22	8	1	13162000	13163000	13162500	13163500
0.5	20	8	2	13162100	13163100	13162600	13163600
0.75 - 1.0	18	8	3	13162200	13163200	13162700	13163700
1.5	16	8	4	13162300	13163300	13162800	13163800
2.5	14	8	5	13162400	13163400	13162900	13163900

Contact tools



Crimp tool:
11147000



Crimp dies:
11147100



Locator:
11147200



Removal tool:
11161000

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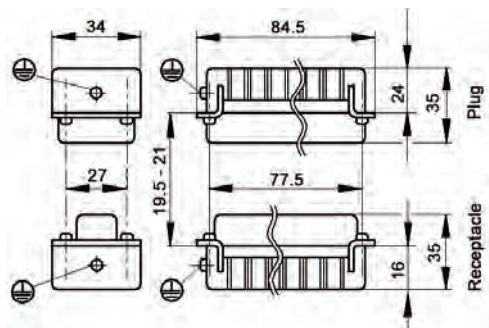
Courtesy of Steven Engineering, Inc - (800) 258-9200 - sales@steveneng.com - www.stevenengineering.com

EPIC® HD 40

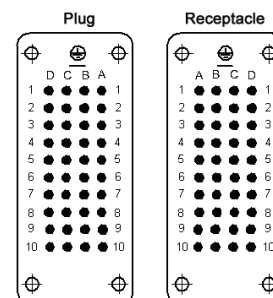
Crimp-terminated for stamped & formed contacts: 250V, 10A



contacts sold separately, see below



all dimensions are in mm



view from cable side

Termination	Contact type	Plug	Receptacle
crimp termination	stamped & formed	11265000	11266000

Compatible housing

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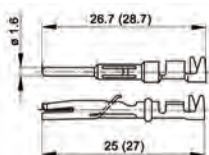
1.6 mm contacts

Stamped & formed contacts for EPIC® HD series inserts



contacts sold in bags of 100 or 1 reel

Contact tools

Crimp tool:
11147000Locator:
11147300Removal tool:
11161000Crimp dies:
0.14 - 0.5 mm²: 11147170
0.5 - 1.5 mm²: 11147180
1.5 - 2.5 mm²: 11147190Crimp tool, die & locator:
0.14 - 0.5 mm²: 11147004
0.5 - 1.5 mm²: 11147005
1.5 - 2.5 mm²: 11147006

Contact size		Stripping length mm	Bag of 100 silver contacts		Bag of 100 gold contacts		Reel of 100 silver contacts: left-hand feed		Reel of 200 silver contacts: left-hand feed	
mm²	AWG		pin	socket	pin	socket	pin	socket	pin	socket
0.14 - 0.5	26 - 20	2.5 - 0.5	11241100	11231100	11243100	11233100	—	—	11240700	11230700
0.5 - 1.5	20 - 16	3.5 - 0.5	11221000	11236100	11221300	11238100	—	—	11220700	11235700
1.5 - 2.5	16 - 14	3.5 - 0.5	11223500	11228500	—	—	11223000	11228000	—	—

Contact size		Stripping length mm	Reel of 2000 silver contacts: right-hand feed		Reel of 2000 gold contacts: right-hand feed		Reel of 2000 silver contacts: left-hand feed		Reel of 2000 gold contacts: left-hand feed	
mm²	AWG		pin	socket	pin	socket	pin	socket	pin	socket
0.14 - 0.5	26 - 20	2.5 - 0.5	11240000	11230000	—	—	11240400	11230400	11240500	11230500
0.5 - 1.5	20 - 16	3.5 - 0.5	11220000	11235000	11220100	11235200	11226000	11226500	—	—
1.5 - 2.5	16 - 14	3.5 - 0.5	—	—	—	—	11222700	11222700	—	—

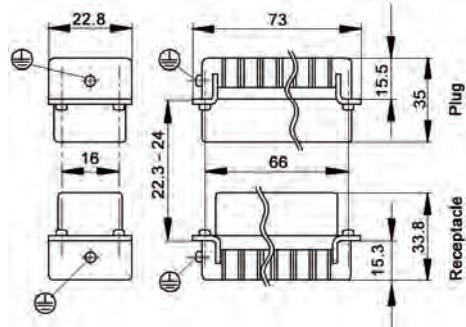
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EPIC® HD 50

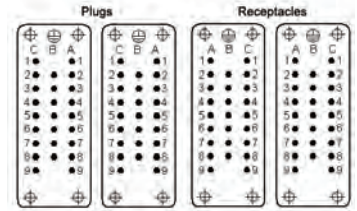
Crimp termination for machined contacts: 250V, 10A



contacts sold separately, see below



all dimensions are in mm



view from cable side

Termination	Contact type	Plug	Receptacle
crimp termination	machined	11283300 x2	11282300 x2

x2 HD 25 inserts, use two part numbers

Compatible housing



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Approvals



1.6 mm contacts

Machined contacts for EPIC® HD series inserts



contacts sold in bags of 100

Contact size		Stripping length mm	# of marking tracks	Bag of 100 silver contacts		Bag of 100 gold contacts	
mm²	AWG			pin	socket	pin	socket
0.14 - 0.37	26 - 22	8	1	13162000	13163000	13162500	13163500
0.5	20	8	2	13162100	13163100	13162600	13163600
0.75 - 1.0	18	8	3	13162200	13163200	13162700	13163700
1.5	16	8	4	13162300	13163300	13162800	13163800
2.5	14	8	5	13162400	13163400	13162900	13163900

Contact tools



Crimp tool:
11147000



Crimp dies:
11147100



Locator:
11147200



Removal tool:
11161000

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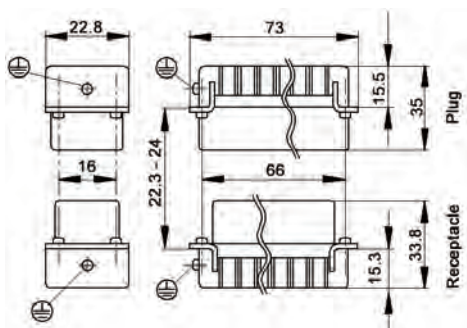
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EPIC® HD 50

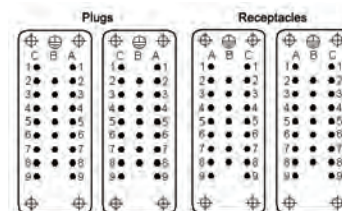
Crimp-terminated for stamped & formed contacts: 250V, 10A



contacts sold separately, see below



all dimensions are in mm



view from cable side

Termination	Contact type	Plug	Receptacle
crimp termination	stamped & formed	11260000 x2	11261000 x2

x2 HD 25 inserts, use two part numbers

Compatible housing

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Approvals



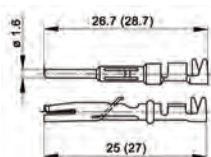
1.6 mm contacts

Stamped & formed contacts for EPIC® HD series inserts



contacts sold in bags of 100 or 1 reel

Contact tools

Crimp tool:
11147000Locator:
11147300Removal tool:
11161000Crimp dies:
0.14 - 0.5 mm²: 11147170
0.5 - 1.5 mm²: 11147180
1.5 - 2.5 mm²: 11147190Crimp tool, die & locator:
0.14 - 0.5 mm²: 11147004
0.5 - 1.5 mm²: 11147005
1.5 - 2.5 mm²: 11147006

Contact size mm² AWG	Stripping length mm	Bag of 100 silver contacts		Bag of 100 gold contacts		Reel of 100 silver contacts: left-hand feed		Reel of 200 silver contacts: left-hand feed	
		pin	socket	pin	socket	pin	socket	pin	socket
0.14 - 0.5	26 - 20	2.5 - 0.5	11241100	11231100	11243100	11233100	—	11240700	11230700
0.5 - 1.5	20 - 16	3.5 - 0.5	11221000	11236100	11221300	11238100	—	11220700	11235700
1.5 - 2.5	16 - 14	3.5 - 0.5	11223500	11228500	—	—	11223000	11228000	—

Contact size mm² AWG	Stripping length mm	Reel of 2000 silver contacts: right-hand feed		Reel of 2000 gold contacts: right-hand feed		Reel of 2000 silver contacts: left-hand feed		Reel of 2000 gold contacts: left-hand feed	
		pin	socket	pin	socket	pin	socket	pin	socket
0.14 - 0.5	26 - 20	2.5 - 0.5	11240000	11230000	—	—	11240400	11230400	11240500
0.5 - 1.5	20 - 16	3.5 - 0.5	11220000	11235000	11220100	11235200	11226000	11226500	—
1.5 - 2.5	16 - 14	3.5 - 0.5	—	—	—	—	11222700	11227700	—

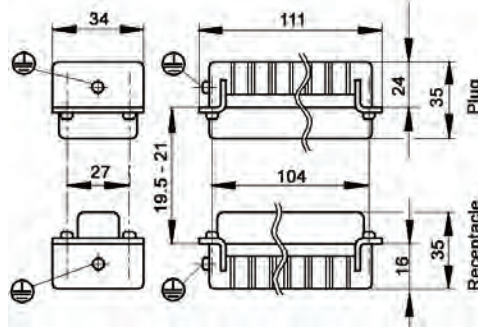
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EPIC® HD 64

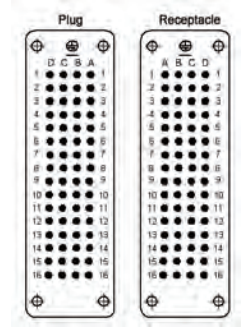
Crimp termination for machined contacts: 250V, 10A



contacts sold separately, see below



all dimensions are in mm



view from cable side

Termination	Contact type	Plug	Receptacle
crimp termination	machined	11272000	11273000

Compatible housing



HB 24
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Approvals



1.6 mm contacts

Machined contacts for EPIC® HD series inserts



contacts sold in bags of 100

Contact size mm²	AWG	Stripping length mm	# of marking tracks	Bag of 100 silver contacts		Bag of 100 gold contacts	
				pin	socket	pin	socket
0.14 - 0.37	26 - 22	8	1	13162000	13163000	13162500	13163500
0.5	20	8	2	13162100	13163100	13162600	13163600
0.75 - 1.0	18	8	3	13162200	13163200	13162700	13163700
1.5	16	8	4	13162300	13163300	13162800	13163800
2.5	14	8	5	13162400	13163400	13162900	13163900

Contact tools



Crimp tool:
11147000



Crimp dies:
11147100



Locator:
11147200



Removal tool:
11161000

If not otherwise specified, all values relating to the product are nominal values.
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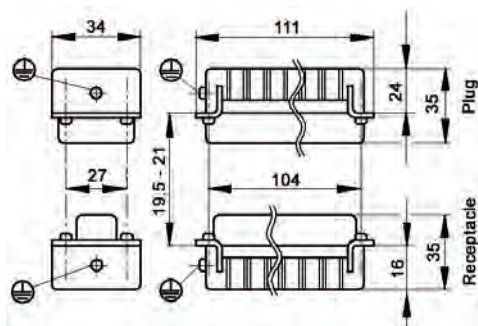
Courtesy of Steven Engineering, Inc - (800) 258-9200 - sales@steveneng.com - www.stevenengineering.com

EPIC® HD 64

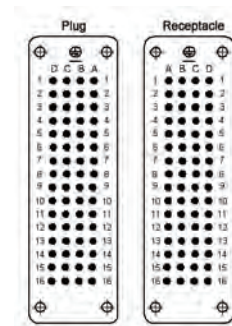
Crimp-terminated for stamped & formed contacts: 250V, 10A



contacts sold separately, see below



all dimensions are in mm



view from cable side

Termination	Contact type	Plug	Receptacle
crimp termination	stamped & formed	11270000	11271000

Compatible housing

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Approvals



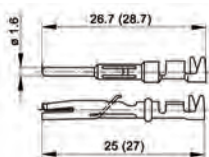
1.6 mm contacts

Stamped & formed contacts for EPIC® HD series inserts



contacts sold in bags of 100 or 1 reel

Contact tools

Crimp tool:
11147000Locator:
11147300Removal tool:
11161000Crimp dies:
0.14 - 0.5 mm²: 11147170
0.5 - 1.5 mm²: 11147180
1.5 - 2.5 mm²: 11147190Crimp tool, die & locator:
0.14 - 0.5 mm²: 11147004
0.5 - 1.5 mm²: 11147005
1.5 - 2.5 mm²: 11147006

Contact size		Stripping length mm	Bag of 100 silver contacts		Bag of 100 gold contacts		Reel of 100 silver contacts: left-hand feed		Reel of 200 silver contacts: left-hand feed	
mm ²	AWG		pin	socket	pin	socket	pin	socket	pin	socket
0.14 - 0.5	26 - 20	2.5 - 0.5	11241100	11231100	11243100	11233100	—	—	11240700	11230700
0.5 - 1.5	20 - 16	3.5 - 0.5	11221000	11236100	11221300	11238100	—	—	11220700	11235700
1.5 - 2.5	16 - 14	3.5 - 0.5	11223500	11228500	—	—	11223000	11228000	—	—

Contact size		Stripping length mm	Reel of 2000 silver contacts: right-hand feed		Reel of 2000 gold contacts: right-hand feed		Reel of 2000 silver contacts: left-hand feed		Reel of 2000 gold contacts: left-hand feed	
mm ²	AWG		pin	socket	pin	socket	pin	socket	pin	socket
0.14 - 0.5	26 - 20	2.5 - 0.5	11240000	11230000	—	—	11240400	11230400	11240500	11230500
0.5 - 1.5	20 - 16	3.5 - 0.5	11220000	11235000	11220100	11235200	11226000	11226500	—	—
1.5 - 2.5	16 - 14	3.5 - 0.5	—	—	—	—	11222700	11222700	—	—

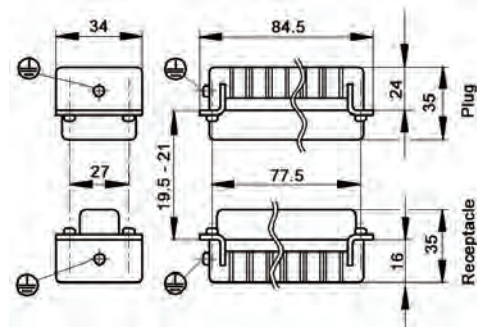
If not otherwise specified, all values relating to the product are nominal values.
Photographs are not to scale and are not true representations of the products in question.

EPIC® HD 80

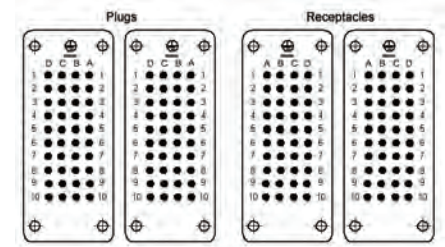
Crimp termination for machined contacts: 250V, 10A



contacts sold separately, see below



all dimensions are in mm



view from cable side

Termination	Contact type	Plug	Receptacle
crimp termination	machined	11265200 x2	11266200 x2

x2 HD 40 inserts, use two part numbers

Compatible housing



HB 32
page 400

Approvals



1.6 mm contacts

Machined contacts for EPIC® HD series inserts



contacts sold in bags of 100

Contact size mm²	AWG	Stripping length mm	# of marking tracks	Bag of 100 silver contacts		Bag of 100 gold contacts	
				pin	socket	pin	socket
0.14-0.37	26-22	8	1	13162000	13163000	13162500	13163500
0.5	20	8	2	13162100	13163100	13162600	13163600
0.75-1.0	18	8	3	13162200	13163200	13162700	13163700
1.5	16	8	4	13162300	13163300	13162800	13163800
2.5	14	8	5	13162400	13163400	13162900	13163900

Contact tools



Crimp tool:
11147000



Crimp dies:
11147100



Locator:
11147200



Removal tool:
11161000

If not otherwise specified, all values relating to the product are nominal values.
Photographs are not to scale and are not true representations of the products in question.

for current information see: www.lappusa.com • www.lappcanada.com

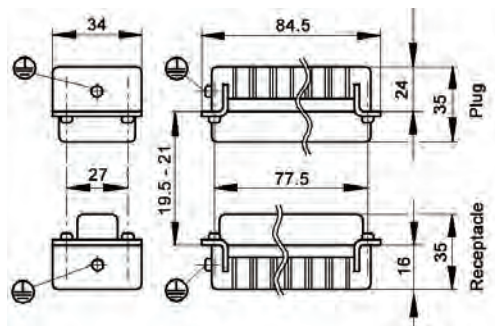
Courtesy of Steven Engineering, Inc - (800) 258-9200 - sales@steveneng.com - www.stevenengineering.com

EPIC® HD 80

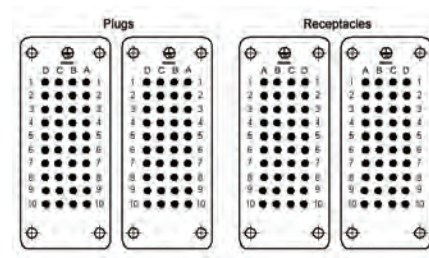
Crimp-terminated for stamped & formed contacts: 250V, 10A



contacts sold separately, see below



all dimensions are in mm



view from cable side

Termination	Contact type	Plug	Receptacle
crimp termination	stamped & formed	11265000 x2	11266000 x2

x2 HD 40 inserts, use two part numbers

Compatible housing

HB 32
page 400

Approvals



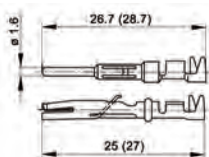
1.6 mm contacts

Stamped & formed contacts for EPIC® HD series inserts



contacts sold in bags of 100 or 1 reel

Contact tools

Crimp tool:
11147000Locator:
11147300Removal tool:
11161000Crimp dies:
0.14 - 0.5 mm²: 11147170
0.5 - 1.5 mm²: 11147180
1.5 - 2.5 mm²: 11147190Crimp tool, die & locator:
0.14 - 0.5 mm²: 11147004
0.5 - 1.5 mm²: 11147005
1.5 - 2.5 mm²: 11147006

Contact size		Stripping length mm	Bag of 100 silver contacts		Bag of 100 gold contacts		Reel of 100 silver contacts: left-hand feed		Reel of 200 silver contacts: left-hand feed	
mm²	AWG		pin	socket	pin	socket	pin	socket	pin	socket
0.14 - 0.5	26 - 20	2.5 - 0.5	11241100	11231100	11243100	11233100	—	—	11240700	11230700
0.5 - 1.5	20 - 16	3.5 - 0.5	11221000	11236100	11221300	11238100	—	—	11220700	11235700
1.5 - 2.5	16 - 14	3.5 - 0.5	11223500	11228500	—	—	11223000	11228000	—	—

Contact size		Stripping length mm	Reel of 2000 silver contacts: right-hand feed		Reel of 2000 gold contacts: right-hand feed		Reel of 2000 silver contacts: left-hand feed		Reel of 2000 gold contacts: left-hand feed	
mm²	AWG		pin	socket	pin	socket	pin	socket	pin	socket
0.14 - 0.5	26 - 20	2.5 - 0.5	11240000	11230000	—	—	11240400	11230400	11240500	11230500
0.5 - 1.5	20 - 16	3.5 - 0.5	11220000	11235000	11220100	11235200	11226000	11226500	—	—
1.5 - 2.5	16 - 14	3.5 - 0.5	—	—	—	—	11222700	11227700	—	—

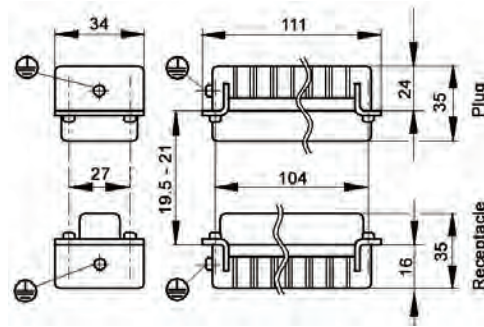
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EPIC® HD 128

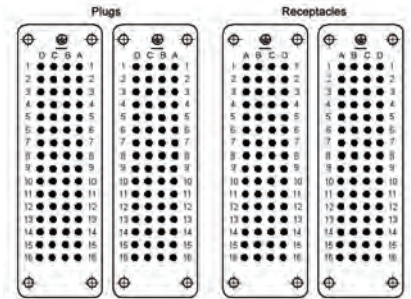
Crimp termination for machined contacts: 250V, 10A



contacts sold separately, see below



all dimensions are in mm



view from cable side

Termination	Contact type	Plug	Receptacle
crimp termination	machined	11272000 x2	11273000 x2

x2 HD 64 inserts, use two part numbers

Compatible housing



HB 48
page 402

Approvals



1.6 mm contacts

Machined contacts for EPIC® HD series inserts



contacts sold in bags of 100

Contact size		Stripping length mm	# of marking tracks	Bag of 100 silver contacts		Bag of 100 gold contacts	
mm²	AWG			pin	socket	pin	socket
0.14 - 0.37	26 - 22	8	1	13162000	13163000	13162500	13163500
0.5	20	8	2	13162100	13163100	13162600	13163600
0.75 - 1.0	18	8	3	13162200	13163200	13162700	13163700
1.5	16	8	4	13162300	13163300	13162800	13163800
2.5	14	8	5	13162400	13163400	13162900	13163900

Contact tools



Crimp tool:
11147000



Crimp dies:
11147100



Locator:
11147200



Removal tool:
11161000

If not otherwise specified, all values relating to the product are nominal values.
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for current information see: www.lappusa.com • www.lappcanada.com

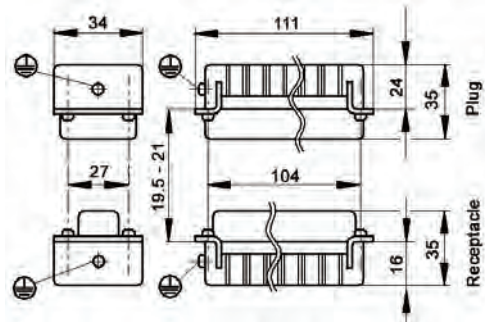
Courtesy of Steven Engineering, Inc - (800) 258-9200 - sales@steveneng.com - www.stevenengineering.com

EPIC® HD 128

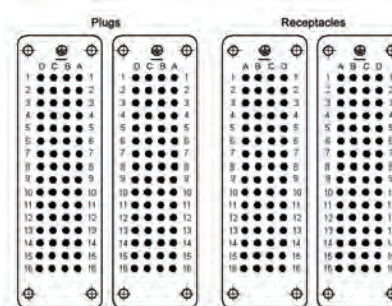
Crimp-terminated for stamped & formed contacts: 250V, 10A



contacts sold separately, see below



all dimensions are in mm



view from cable side

Termination	Contact type	Plug	Receptacle
crimp termination	stamped & formed	1127000 x2	1127100 x2

x2 HD 64 inserts, use two part numbers

Compatible housing

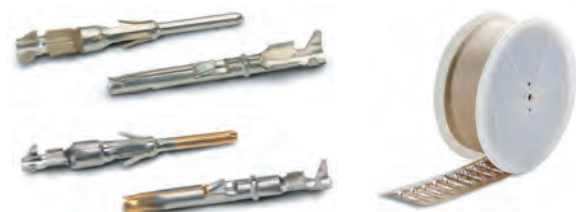
HA 48
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Approvals



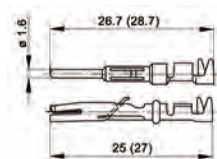
1.6 mm contacts

Stamped & formed contacts for EPIC® HD series inserts



contacts sold in bags of 100 or 1 reel

Contact tools

Crimp tool:
11147000Locator:
11147300Removal tool:
11161000Crimp dies:
0.14 - 0.5 mm²: 11147170
0.5 - 1.5 mm²: 11147180
1.5 - 2.5 mm²: 11147190Crimp tool, die & locator:
0.14 - 0.5 mm²: 11147004
0.5 - 1.5 mm²: 11147005
1.5 - 2.5 mm²: 11147006

Contact size		Stripping length mm	Bag of 100 silver contacts		Bag of 100 gold contacts		Reel of 100 silver contacts: left-hand feed		Reel of 200 silver contacts: left-hand feed	
mm ²	AWG		pin	socket	pin	socket	pin	socket	pin	socket
0.14 - 0.5	26 - 20	2.5 - 0.5	11241100	11231100	11243100	11233100	—	—	11240700	11230700
0.5 - 1.5	20 - 16	3.5 - 0.5	11221000	11236100	11221300	11238100	—	—	11220700	11235700
1.5 - 2.5	16 - 14	3.5 - 0.5	11223500	11228500	—	—	11223000	11228000	—	—

Contact size		Stripping length mm	Reel of 2000 silver contacts: right-hand feed		Reel of 2000 gold contacts: right-hand feed		Reel of 2000 silver contacts: left-hand feed		Reel of 2000 gold contacts: left-hand feed	
mm ²	AWG		pin	socket	pin	socket	pin	socket	pin	socket
0.14 - 0.5	26 - 20	2.5 - 0.5	11240000	11230000	—	—	11240400	11230400	11240500	11230500
0.5 - 1.5	20 - 16	3.5 - 0.5	11220000	11235000	11220100	11235200	11226000	11226500	—	—
1.5 - 2.5	16 - 14	3.5 - 0.5	—	—	—	—	11222700	11222700	—	—

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EPIC® HDD series

Ultra high-density crimp-terminated inserts for control applications



EPIC® HDD series inserts offer the highest possible machined contact density in a compact insert design. With more contacts available in a single insert, smaller connector housings can be used to provide significant panel space savings.

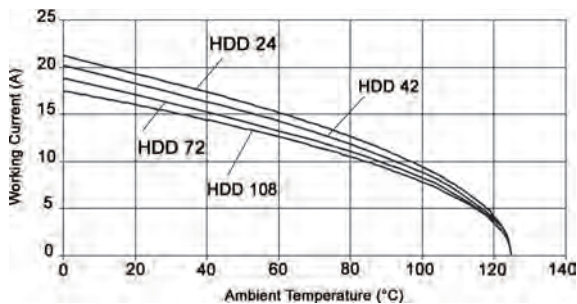
Technical data

Number of contacts:	24, 42, 72, 108, 144, 216 (+PE)	Rated voltage:	
		- UL/CSA:	600V
Temperature range:	-40°C to +100°C	- IEC:	250V
- short-term:	up to +125°C		
Pollution level:	2	Rated current:	
		- UL:	8.5A
Mating cycles:	- per DIN EN 61984:2008	- CSA:	10A
	Service Life Test: Tested to 100 cycles and passed	- IEC:	10A
	- per Contact Thermal Test: Useful service up to 500 cycles is possible at rated voltage and current*	Wire size:	26 - 14 AWG (0.14 - 2.5 mm ²)
Test voltage:	2.5 kV	Contact material:	silver- or gold-plated copper alloy
		Contact resistance:	< 3 mΩ

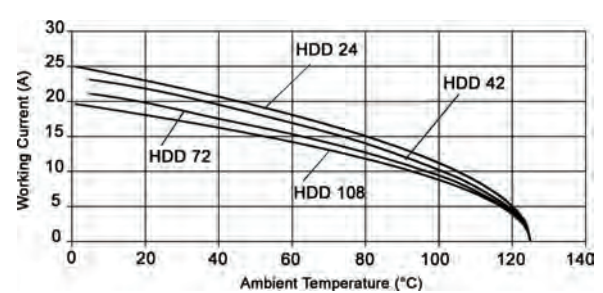
* In dry, non-conductive, non-corrosive environments when protected in a housing rated at least IP54 and disconnected for cycling and maintenance only.

EPIC® HDD derating curves

16 AWG (1.5 mm²)



14 AWG (2.5 mm²)

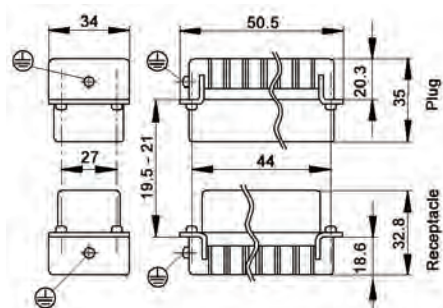


EPIC® HDD 24

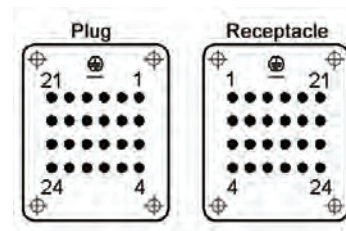
Crimp termination: 600V, 8.5A



contacts sold separately, see below



all dimensions are in mm



view from cable side

Termination	Plug	Receptacle
crimp termination	11285000	11286000

Compatible housing



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Approvals

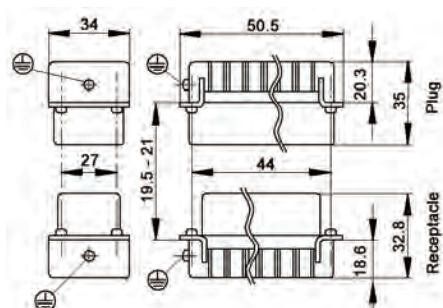


EPIC® HDD 42

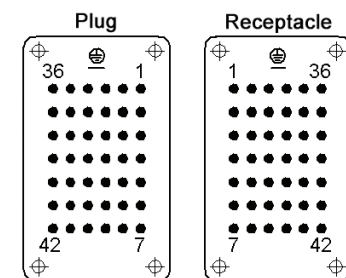
Crimp termination: 600V, 8.5A



contacts sold separately, see below



all dimensions are in mm



view from cable side

Termination	Plug	Receptacle
crimp termination	11285100	11286100

Compatible housing



HB 10
page 382

Approvals



1.6 mm contacts

Machined contacts for EPIC® HDD series inserts



contacts sold in bags of 100

Contact size		Stripping length mm	# of marking tracks	Bag of 100 silver contacts		Bag of 100 gold contacts	
mm²	AWG			pin	socket	pin	socket
0.14 - 0.37	26 - 22	8	1	13162000	13163000	13162500	13163500
0.5	20	8	2	13162100	13163100	13162600	13163600
0.75 - 1.0	18	8	3	13162200	13163200	13162700	13163700
1.5	16	8	4	13162300	13163300	13162800	13163800
2.5	14	8	5	13162400	13163400	13162900	13163900

Contact tools



Crimp tool:
11147000



Crimp dies:
11147100



Locator:
11147200

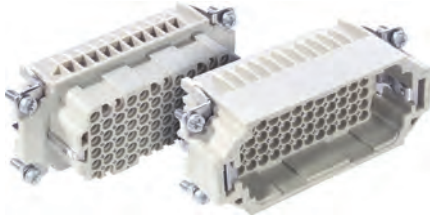


Removal tool:
11161000

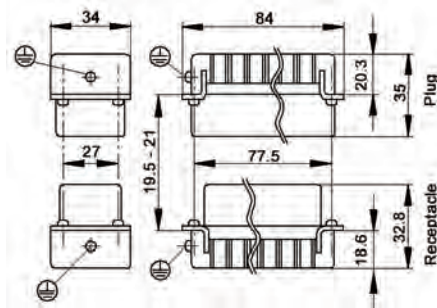
If not otherwise specified, all values relating to the product are nominal values.
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EPIC® HDD 72

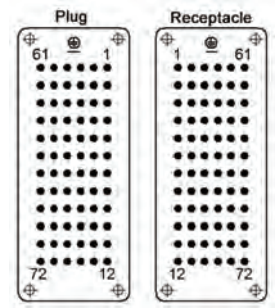
Crimp termination: 600V, 8.5A



contacts sold separately, see below



all dimensions are in mm



view from cable side

Termination	Plug	Receptacle
crimp termination	11285200	11286200

Compatible housing



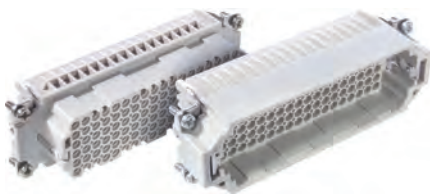
HB 16
page 388

Approvals

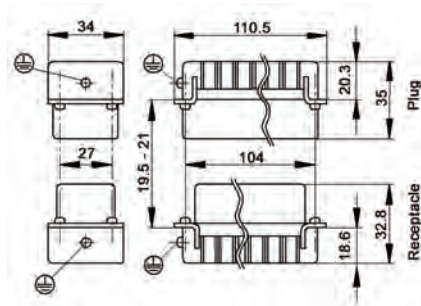


EPIC® HDD 108

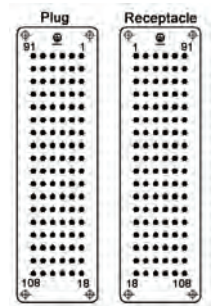
Crimp termination: 600V, 8.5A



contacts sold separately, see below



all dimensions are in mm



view from cable side

Termination	Plug	Receptacle
crimp termination	11285300	11286300

Compatible housing



HB 24
page 394

Approvals



1.6 mm contacts

Machined contacts for EPIC® HDD series inserts



contacts sold in bags of 100

Contact size mm²	AWG	Stripping length mm	# of marking tracks	Bag of 100 silver contacts		Bag of 100 gold contacts	
				pin	socket	pin	socket
0.14 - 0.37	26 - 22	8	1	13162000	13163000	13162500	13163500
0.5	20	8	2	13162100	13163100	13162600	13163600
0.75 - 1.0	18	8	3	13162200	13163200	13162700	13163700
1.5	16	8	4	13162300	13163300	13162800	13163800
2.5	14	8	5	13162400	13163400	13162900	13163900

Contact tools



Crimp tool:
11147000



Crimp dies:
11147100



Locator:
11147200



Removal tool:
11161000

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for current information see: www.lappusa.com • www.lappcanada.com

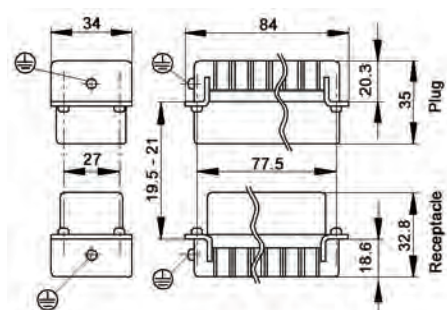
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EPIC® HDD 144

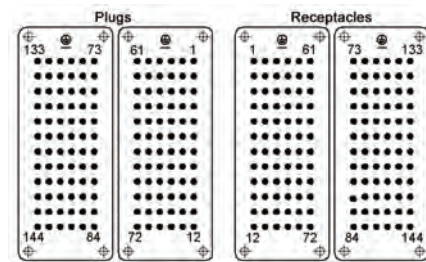
Crimp termination: 600V, 8.5A



contacts sold separately, see below



all dimensions are in mm



view from cable side

Termination	Contact numbering	Plug	Receptacle
crimp termination	#1 - 72	11285200	11286200
	#73 - 144	11285400	11286400

Compatible housing



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Approvals

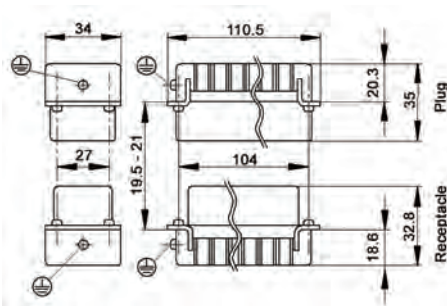


EPIC® HDD 216

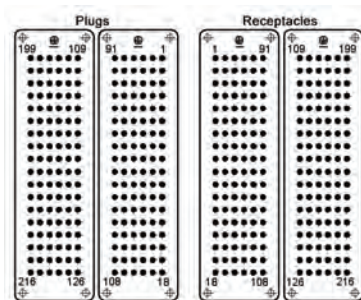
Crimp termination: 600V, 8.5A



contacts sold separately, see below



all dimensions are in mm



view from cable side

Termination	Contact numbering	Plug	Receptacle
crimp termination	#1 - 108	11285300	11286300
	#109 - 216	11285500	11286500

Compatible housing



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page 402

Approvals



1.6 mm contacts

Machined contacts for EPIC® HDD series inserts



contacts sold in bags of 100

Contact size		Stripping length mm	# of marking tracks	Bag of 100 silver contacts		Bag of 100 gold contacts	
mm²	AWG			pin	socket	pin	socket
0.14 - 0.37	26 - 22	8	1	13162000	13163000	13162500	13163500
0.5	20	8	2	13162100	13163100	13162600	13163600
0.75 - 1.0	18	8	3	13162200	13163200	13162700	13163700
1.5	16	8	4	13162300	13163300	13162800	13163800
2.5	14	8	5	13162400	13163400	13162900	13163900

Contact tools



Crimp tool:
11147000



Crimp dies:
11147100



Locator:
11147200



Removal tool:
11161000

If not otherwise specified, all values relating to the product are nominal values.
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EPIC® MH series

Modular system for power, signal & data



The EPIC® MH series is a modular connector system capable of transmitting power, signal and data in a single connector. The series is designed to be assembled with ease and is compatible with other standard modular systems in the market.

Technical data

Number of contacts:

- power: 2, 3, 4, 6
- signal: 8, 12, 17, 20
- data: 2x2, 36-pole

Temperature range: see product page

Pollution level: 3

Mating cycles: - per DIN EN 61984:2008
Service Life Test: Tested to 500 cycles and passed

Test voltage: 0.8 kV - 8 kV, depending on module

Rated voltage: 50 - 1000V

Rated current: 10 - 100A

Wire size: 26 - 8 AWG (0.14 - 10 mm²)

Contact material: silver-plated copper alloy

Contact resistance: < 5 mΩ

Approvals: UL File Number: E75770
(where applicable)

EPIC® MH 2

2-position module for power transmission



mount in high profile housings only
contacts sold separately, see below

Termination	# of slots in frame	Plug	Receptacle	Contact size
crimp termination	2	44423212	44423213	8 mm

Technical data

Temperature range:	-40°C to +125°C
Rated voltage:	1000V
Rated current:	100A
Wire size:	8 - 1 AWG (10 - 35 mm²)

Complete the installation



MH frames
page 349

Approvals



8 mm contacts

Machined contacts for EPIC® MH series modules



Contact size		Stripping length mm	Bag of 10 silver contacts		Pack size
mm²	AWG		pin	socket	
10	8	18	44423242	44423246	10
16	6	18	44423243	44423247	10
25	4	18	44423244	44423248	10
35	2	18	44423245	44423249	10

Contact tools



Crimp dies:

10 mm²:	44423270
16 mm²:	44423271
25 mm²:	44423272
35 mm²:	44423273



Removal tool:
44423269

Use with hydraulic crimp tool

If not otherwise specified, all values relating to the product are nominal values.
Photographs are not to scale and are not true representations of the products in question.

EPIC® MH 3

3-position module for power transmission



mount in high profile housings only
contacts sold separately, see below

Termination	# of slots in frame	Plug	Receptacle	Contact size
crimp termination	1	44423214	44423215	4 mm

Technical data

Temperature range:	-40°C to +125°C
Rated voltage:	
- conductor/ground:	400V
- conductor/conductor:	690V
Rated current:	40A
Wire size:	16 - 8 AWG (1.5 - 10 mm²)

Complete the installation



MH frames
page 349

Approvals



EPIC® MH 4

4-position module for power transmission



mount in high profile housings only
contacts sold separately, see below

Termination	# of slots in frame	Plug	Receptacle	Contact size
crimp termination	1	44423216	44423217	4 mm

Technical data

Temperature range:	-40°C to +125°C
Rated voltage:	830V
Rated current:	40A
Wire size:	16 - 8 AWG (1.5 - 10 mm²)

Complete the installation



MH frames
page 349

Approvals



4 mm contacts

Machined contacts for EPIC® MH series modules



Contact size	Stripping length		Bag of 10 silver contacts		Pack size
			pin	socket	
1.5	16	10	44423250	44423255	10
2.5	14	10	44423251	44423256	10
4	12	10	44423252	44423257*	10
6	10	10	44423253	44423258	10
10	8	10	44423254	44423259	10

* contact 44423257 requires crimp die 11174101

Complete the installation



Crimp tool:
11147000



Crimp dies:
16 - 12 AWG: 11147100
10 - 8 AWG: 11147101



Locator:
11147201



Removal tool:
44423268

EPIC® MH 6

6-position module for signal transmission



mount in high profile housings only
contacts sold separately, see below

Termination	# of slots in frame	Plug	Receptacle	Contact size
crimp termination	1	44423218	44423219	2.5 mm

Technical data

Temperature range:	-40°C to +125°C
Rated voltage:	500V
Rated current:	16A
Wire size:	26 - 12 AWG (0.14 - 4 mm ²)

Complete the installation



MH frames
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Approvals



EPIC® MH 8

8-position module for signal transmission



mount in high profile housings only
contacts sold separately, see below

Termination	# of slots in frame	Plug	Receptacle	Contact size
crimp termination	1	44423220	44423221	2.5 mm

Technical data

Temperature range:	-40°C to +125°C
Rated voltage:	400V
Rated current:	16A
Wire size:	26 - 12 AWG (0.14 - 4 mm ²)

Complete the installation



MH frames
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Approvals



2.5 mm contacts

Machined contacts for EPIC® MH series modules



Complete the installation



Crimp tool:
11147000



Crimp dies:
11147100



Locator:
11147200

for removal of contacts, use a slotted screwdriver; no special tool is necessary

Contact size		Stripping length (mm)		# of marking tracks	Bag of 100 silver contacts		Bag of 100 gold contacts	
mm ²	AWG	pin	socket		pin	socket	pin	socket
0.5	20	7.4	7.3	—	11190000	11195000	11192000	11197000
0.75 - 1.0	18	7.4	7.3	1	11190100	11195100	11192100	11197100
1.5	16	7.4	7.3	2	11190200	11195200	11192200	11197200
2.5	14	7.4	7.3	3	11190300	11195300	—	—
4.0	12	7.4	7.3	—	11190400	11195400	—	—

If not otherwise specified, all values relating to the product are nominal values.
Photographs are not to scale and are not true representations of the products in question.

EPIC® MH 12

12-position module for signal transmission



mount in high profile housings only
contacts sold separately, see below

Termination	# of slots in frame	Plug	Receptacle	Contact size
crimp termination	1	44423222	44423223	1.6 mm

Technical data

Temperature range:	-40°C to +125°C
Rated voltage:	250V
Rated current:	10A
Wire size:	26 - 14 AWG (0.14 - 2.5 mm²)

Complete the installation



MH frames
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Approvals



EPIC® MH 17

17-position module for signal transmission



mount in high profile housings only
contacts sold separately, see below

Termination	# of slots in frame	Plug	Receptacle	Contact size
crimp termination	1	44423224	44423225	1.6 mm

Technical data

Temperature range:	-40°C to +125°C
Rated voltage:	160V
Rated current:	10A
Wire size:	26 - 14 AWG (0.14 - 2.5 mm²)

Complete the installation



MH frames
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Approvals



1.6 mm contacts

Machined contacts for EPIC® MH series modules



Contact size		Stripping length mm	# of marking tracks	Bag of 100 silver contacts		Bag of 100 gold contacts	
mm²	AWG			pin	socket	pin	socket
0.14 - 0.37	26 - 22	8	1	13162000	13163000	13162500	13163500
0.5	20	8	2	13162100	13163100	13162600	13163600
0.75 - 1.0	18	8	3	13162200	13163200	13162700	13163700
1.5	16	8	4	13162300	13163300	13162800	13163800
2.5	14	5.8	5	13162400	13163400	13162900	13163900

Complete the installation



Crimp tool:
11147000



Crimp dies:
11147100



Locator:
11147200



Removal tool:
11161000

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EPIC® MH 20

20-position module for signal transmission



mount in high profile housings only
contacts sold separately, see below

Termination	# of slots in frame	Plug	Receptacle	Contact size
crimp termination	2	44423226	44423227	2.5 mm

Technical data

Temperature range:	-40°C to +125°C
Rated voltage:	500V
Rated current:	16A
Wire size:	26 - 12 AWG (0.14 - 4 mm ²)

Complete the installation



MH frames
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Approvals



2.5 mm contacts

Machined contacts for EPIC® MH series modules



Contact size		Stripping length (mm)		# of marking tracks	Bag of 100 silver contacts		Bag of 100 gold contacts	
mm ²	AWG	pin	socket		pin	socket	pin	socket
0.5	20	7.4	7.3	—	11190000	11195000	11192000	11197000
0.75 - 1.0	18	7.4	7.3	1	11190100	11195100	11192100	11197100
1.5	16	7.4	7.3	2	11190200	11195200	11192200	11197200
2.5	14	7.4	7.3	3	11190300	11195300	—	—
4.0	12	7.4	7.3	—	11190400	11195400	—	—

contacts sold in bags of 100

Complete the installation



Crimp tool:
11147000



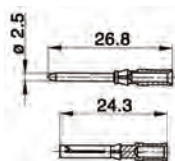
Crimp dies:
11147100



Locator:
11147200



Removal tool:
11182500



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EPIC® MH 36

36-position module for signal transmission



mount in high profile housings only
contacts sold separately, see below

Termination	# of slots in frame	Plug	Receptacle	Contact size
crimp termination	2	44423266	44423267	1.6 mm

Both plug and receptacle modules accept male and female contacts

Technical data

Temperature range:	-40°C to +125°C
Rated voltage:	250V
Rated current:	10A
Wire size:	26 - 14 AWG (0.14 - 2.5 mm²)

Complete the installation



MH frames
page 349

Approvals



EPIC® MH 0

Dummy module



mount in high profile housings only
contacts sold separately, see below

Description	# of slots in frame	Part Number	Pack size
blind module	1	44423232	10
blind module with centering plug	1	44423233	10

Complete the installation



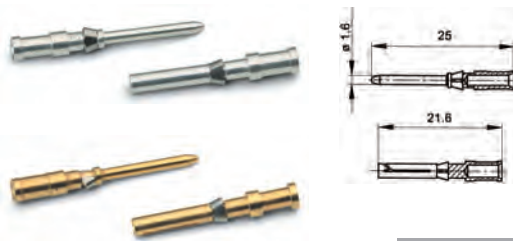
MH frames
page 349

Approvals



1.6 mm contacts

Machined contacts for EPIC® MH series modules



contacts sold in bags of 100

Contact size mm²	AWG	Stripping length mm	# of marking tracks	Bag of 100 silver contacts		Bag of 100 gold contacts	
				pin	socket	pin	socket
0.14 - 0.37	26 - 22	8	1	13162000	13163000	13162500	13163500
0.5	20	8	2	13162100	13163100	13162600	13163600
0.75 - 1.0	18	8	3	13162200	13163200	13162700	13163700
1.5	16	8	4	13162300	13163300	13162800	13163800
2.5	14	8	5	13162400	13163400	13162900	13163900

Complete the installation



Crimp tool:
11147000



Crimp dies:
11147100



Locator:
11147200



Removal tool:
11161000

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EPIC® MH BUS/MH Coax

2x4-position shielded module for data & signal transmission



EPIC® MH BUS module

EPIC® MH Bus PIN contact holder

EPIC® MH Coax contact holder



Technical data

Rated voltage: 50V

Rated current:

- EPIC® MH Bus PIN: 10A
- EPIC® MH Coax: 16A

Complete the installation

MH frames
page 349MH
Potential set:
44423265mount in high profile housings only
contacts sold separately, see below

Approvals

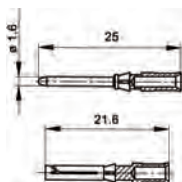


Description	Number of contacts	# of slots in frame	Plug	Receptacle	Contact size
BUS module	—	2	44423228	44423230	—
Bus PIN contact holder	4 + shield	—	44423229	44423231	1.6 mm
Coax contact holder	1	—	44423260	44423261	1.6 mm
	1	—	44423262	44423263	2.5 mm

1.6 mm / 2.5 mm contacts



contacts sold in bags of 100



1.6 mm machined contacts

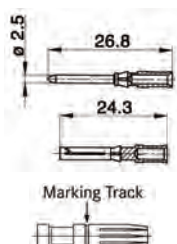
Contact size mm ²	AWG	Stripping length mm	# of marking tracks	Bag of 100 silver contacts		Bag of 100 gold contacts	
				pin	socket	pin	socket
0.14 - 0.37	26 - 22	8	1	13162000	13163000	13162500	13163500
0.5	20	8	2	13162100	13163100	13162600	13163600
0.75 - 1.0	18	8	3	13162200	13163200	13162700	13163700
1.5	16	8	4	13162300	13163300	13162800	13163800
2.5	14	5.8	5	13162400	13163400	13162900	13163900

2.5 mm machined contacts

Contact size mm ²	AWG	Stripping length (mm)		# of marking tracks	Bag of 100 silver contacts		Bag of 100 gold contacts	
		pin	socket		pin	socket	pin	socket
0.5	20	7.4	7.3	—	11190000	11195000	11192000	11197000
0.75 - 1.0	18	7.4	7.3	1	11190100	11195100	11192100	11197100
1.5	16	7.4	7.3	2	11190200	11195200	11192200	11197200
2.5	14	7.4	7.3	3	11190300	11195300	—	—
4.0	12	7.4	7.3	—	11190400	11195400	—	—



contacts sold in bags of 100



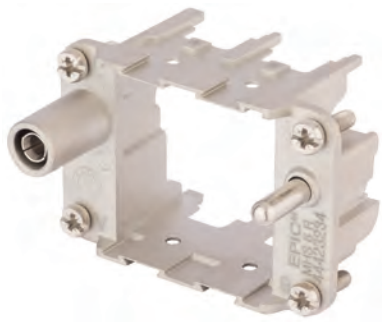
Complete the installation

Crimp tool:
11147000Crimp dies:
11147100Locator:
11147200Removal tool:
1.6 mm: 11161000
2.5 mm: 11182500

If not otherwise specified, all values relating to the product are nominal values.
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EPIC® MH 6 multi frame

Modular frame with 2 slots



Technical data

Temperature range: -40°C to +125°C

Material: die-cast zinc

Complete the installation



MH clip:
44423264

Compatible housing

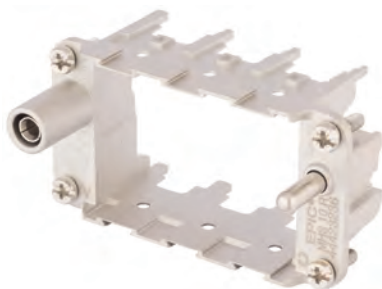


HB 6
page 379

Part number	Description	Number of slots	Slot marking
44423234	plug	2	A, B
44423235	receptacle	2	a, b

EPIC® MH 10 multi frame

Modular frame with 3 slots



Technical data

Temperature range: -40°C to +125°C

Material: die-cast zinc

Complete the installation



MH clip:
44423264

Compatible housing

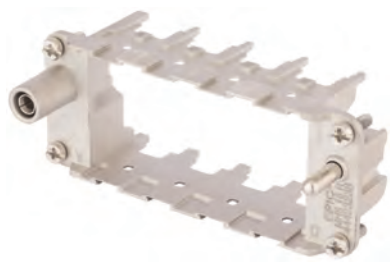


HB 10
page 382

Part number	Description	Number of slots	Slot marking
44423236	plug	3	A, B, C
44423237	receptacle	3	a, b, c

EPIC® MH 16 multi frame

Modular frame with 4 slots



Technical data

Temperature range: -40°C to +125°C

Material: die-cast zinc

Complete the installation



MH clip:
44423264

Compatible housing



HB 16
page 388

Part number	Description	Number of slots	Slot marking
44423238	plug	4	A, B, C, D
44423239	receptacle	4	a, b, c, d

EPIC® MH 24 multi frame

Modular frame with 6 slots



Technical data

Temperature range: -40°C to +125°C

Material: die-cast zinc

Complete the installation



MH clip:
44423264

Compatible housing



HB 24
page 394

Part number	Description	Number of slots	Slot marking
44423240	plug	6	A, B, C, D, E, F
44423241	receptacle	6	a, b, c, d, e, f

EPIC® MC series

Modular inserts for custom configurations



The EPIC® MC modular series connector can be custom-configured to meet application requirements by combining a variety of standard plug-and-play modules within various size support frames. Configurations include contacts for power and control, thermocouple contacts, data modules for PROFIBUS® and Ethernet, and pneumatic modules.

PROFIBUS® is a registered trademark of the PNO (PROFIBUS User Organization).

Technical data

Number of contacts:	1 - 280 (+PE)	Rated voltage:	
		- UL/CSA:	100 - 600V
Temperature range:	-40°C to +100°C	- IEC:	30 - 1000V
- short-term:	up to +125°C		
Pollution level:	3	Rated current:	
		- UL/CSA:	4 - 82A
Mating cycles:	- per DIN EN 61984:2008 Service Life Test: Tested to 100 cycles and passed - per Contact Thermal Test: Useful service up to 500 cycles is possible at rated voltage and current*	- IEC:	1 - 220A
		Wire size:	
		- screw termination:	8 - 4 AWG (10 - 25 mm²)
		- crimp termination:	30 - 4/0 AWG (0.06 - 95 mm²)
		- cage clamp:	20 - 14 AWG (0.5 - 2.5 mm²)
		Contact material:	silver- or gold-plated copper alloy
		Contact resistance:	< 1 mΩ - < 5 mΩ

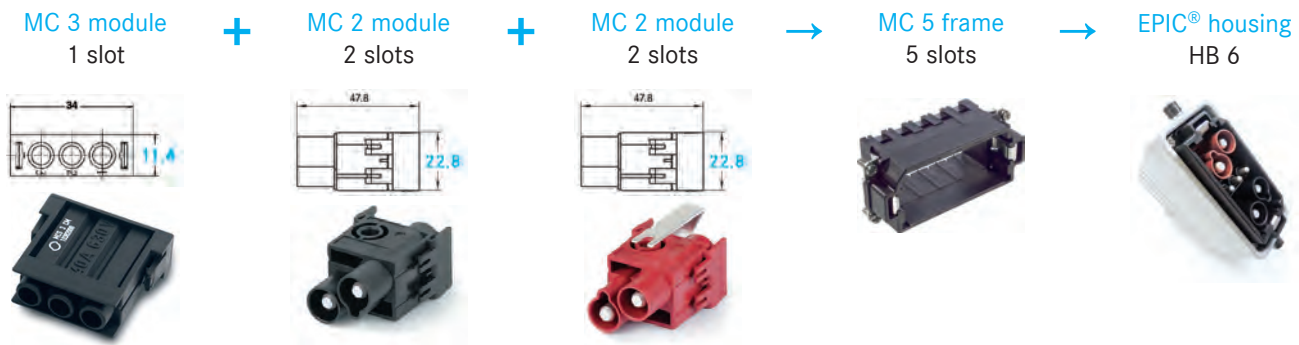
* In dry, non-conductive, non-corrosive environments when protected in a housing rated at least IP54 and disconnected for cycling and maintenance only.

Assembly Instructions

EPIC® MC modular inserts are composed of two parts: one or more modules and a frame, which are then installed in an EPIC® housing unit.

MC modules occupy either one or two slots in an MC frame. Single-slot modules are 11.4 mm wide. Double-slot modules are 22.8 mm wide. Most modules require a removal tool to remove from the frame. EPIC® MC 2 modules can be removed manually.

example:



EPIC® MC quick select

Number of contacts	Module	Description	Plug	Receptacle	Rated voltage	Rated current	Removal tool needed	Page
1	EPIC® MC HHC1	high current	44424030	44424031	1000V	220A	no	356
2	EPIC® MC HC2		44424012	44424013	1000V	65A	no	354
2	EPIC® MC HHC2	high current	44424017	44424018	1000V	150A	no	355
2	EPIC® MC 2	2 working contacts	10344100	10345100	1000V	82A	no	353
2	EPIC® MC 2	1 working contact + 1 ground	10344600	10345600	1000V	82A	no	353
3	EPIC® MC 3 Coax	coax module	10399200	10399300	250V	—	yes	357
3	EPIC® MC 3	3 contacts	10382000	10382100	630V	40A	yes	358
3	EPIC® MC 3 High Voltage	high voltage	10399800	10399900	1000V	50A	yes	359
4	EPIC® MC 4 HE	HE module	10399000	10399100	630V	25A	no	360
4+PE	EPIC® MC 4+PE High Voltage	high voltage + ground	10383200	10383300	1000V	16A	yes	361
5	EPIC® MC 5	5 contacts	10382200	10382300	400V	20A	yes	362
10	EPIC® MC 10	with machined contacts	10382400	10382500	250V	10A	yes	363
10	EPIC® MC 10	with stamped & formed contacts	10383400	10383500	250V	10A	yes	363
20	EPIC® MC 20	low voltage	10383600	10383700	100V	4A	yes	365
0	EPIC® MC Dummy	dummy module	10399400	10399500	—	—	yes	366
4	EPIC® MC Cage Clamp	cage clamp module	10399600	10399700	400V	14A	yes	366
2 + shield	EPIC® MC PROFIBUS DP	for PROFIBUS® DP	10390400	10390500	30V	1A	no	367
4 + RJ45	EPIC® MC Ethernet	RJ45 connector + 4 power contacts	10344300	10345300	600V	10A	yes	369
4 + shield	EPIC® MC Universal Bus	universal bus	10390600	10390700	30V	1A	no	367
8 + shield	EPIC® MC BUS	universal bus	10390410	10390411	50V	10A	no	368
1	EPIC® MC Pneumatic	pneumatic hose with 2.5 mm diameter	44424004	44424005	145 psi	—	yes	370
1	EPIC® MC Pneumatic	pneumatic hose with 4 mm diameter	44424006	44424007	145 psi	—	yes	370
2	EPIC® MC Pneumatic	pneumatic hose with 2.5 mm diameter	44424008	44424009	145 psi	—	yes	370
2	EPIC® MC Pneumatic	pneumatic hose with 4 mm diameter	44424010	44424011	145 psi	—	yes	370

EPIC® MC frames

Number of modules	Plug	Receptacle	Housing	Page
2	10381000	10381100	HB 6	371
3	10381200	10381300	HB 10	371
5	10381400	10381500	HB 16	372

Number of modules	Plug	Receptacle	Housing	Page
7	10381600	10381700	HB 24	372
10	10381400 (x2)	10381500 (x2)	HB 32	373
14	10381600 (x2)	10381700 (x2)	HB 48	373

EPIC® MC module removal tool



For removing certain EPIC® MC series modules from module mounting frames: MC 3, 4+PE, 5, 10 & 20 contact modules; dummy; cage clamp; Ethernet & pneumatic modules. Other modules can be removed manually.

Part number
11171200

■ Approvals

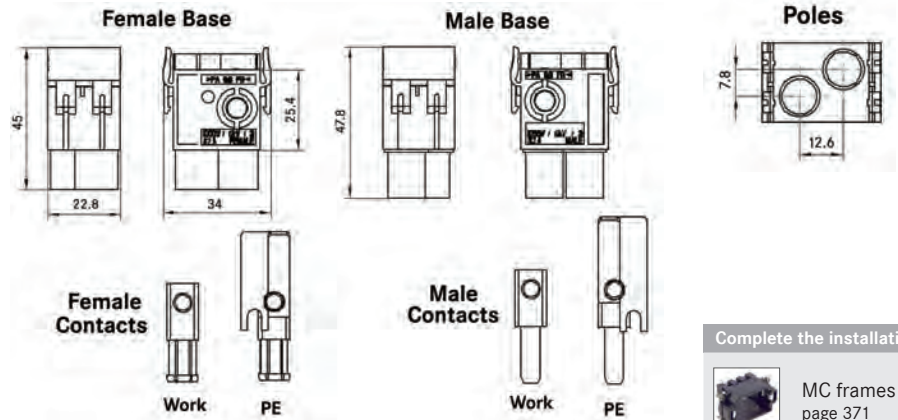


EPIC® MC 2**2-position module with protected ground for high power transmission**

2 working contacts



1 working contact + 1 ground



all dimensions are in mm

Complete the installation

MC frames
page 371**Usage notes**

- Module can be inserted into the standard EPIC® modular frames
- Module can be inserted or removed from the frame without a tool, due to snap hooks
- Module takes up two slots in the modular frame
- High current modules require the usage of high profile EPIC® HB 16 & 24 housings
- Wire end ferrules are recommended for use with 6 & 8 AWG stranded wire

Application advantage

- Screw contact modules can be wired easily with a standard screwdriver
- Flexibility of the modular series allows the arrangement of modules to fit requirements

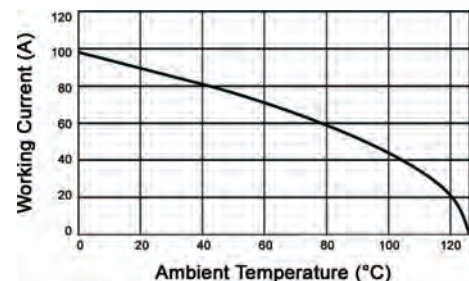
Approvals**Technical data**

Temperature range:	-40°C to + 100°C	Termination:	screw
Mating cycles:	100 (higher mating cycles depending on the application)	Wire size:	8 - 4 AWG (10 - 25 mm²) (crimped terminal ends required for 4 AWG wire)
Rated voltage:		Contact material:	brass; 2µ nickel & 2 - 3µ silver
- UL/CSA:	600V	Contact resistance:	1.5 - 4 mΩ
- IEC:	1000V		
Rated current:	82A		

Description	Wire protection	# of slots in frame	Plug	Receptacle
2 working contacts	no	2	10344100	10345100
1 working contact + 1 ground	no	2	10344600	10345600

Derating curve

10 AWG (6 mm²)

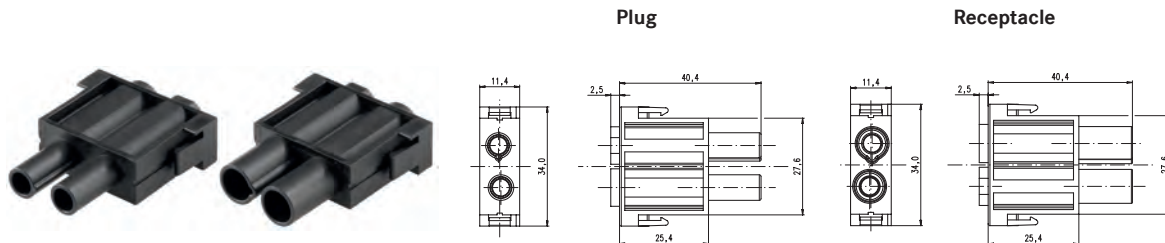


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EPIC® MC HC2

Compact 2-position module for high current transmission



contacts sold separately, see below

all dimensions are in mm

Technical data

Temperature range:	-40°C to +125°C
Rated voltage:	1000V
Rated current:	65A
Wire size:	6 AWG (16 mm ²)

Complete the installation

MC frames
page 371

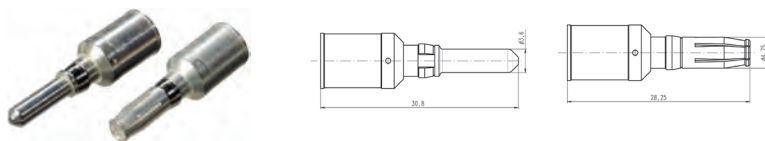
Approvals



Termination	# of slots in frame	Plug	Receptacle	Contact size
crimp termination	1	44424012	44424013	3.6 mm

3.6 mm contacts 6 AWG

Machined contacts for EPIC® MC series modules



Contact size		Bag of 100 silver contacts	
mm ²	AWG	pin	socket
16	6	44424014	44424015

Complete the installation

Crimp tool:
11147000Crimp dies:
11147111Locator:
11147210Removal tool:
11171100

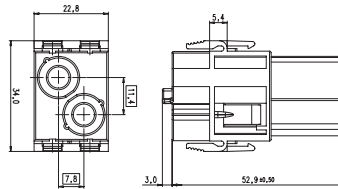
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EPIC® MC HHC2

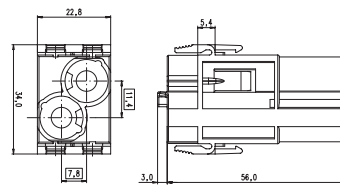
2-position module for high current transmission



Plug



Receptacle



contacts sold separately, see below

all dimensions are in mm

■ Technical data

Temperature range:	-40°C to +125°C
Rated voltage:	1000V
Rated current:	150A
Wire size:	6 - 1 AWG (16 - 35 mm²)

Complete the installation



MC frames
page 371

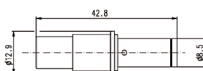
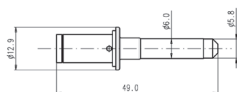
■ Approvals



Termination	# of slots in frame	Plug	Receptacle	Contact size
crimp termination	2	44424017	44424018	6 mm

6 mm contacts

Machined contacts for EPIC® MC series modules



Contact size		Bag of 20 silver-plated contacts		Pack size
mm ²	AWG	pin	socket	
16	6	44424019	44424022	20
25	4	44424020	44424023	20
35	1	44424021	44424024	20

Complete the installation



Crimp dies:	
16 mm ² :	44424025
25 mm ² :	44424026
35 mm ² :	44424027

use with hydraulic crimp tool Klauke type EK 60/22-L

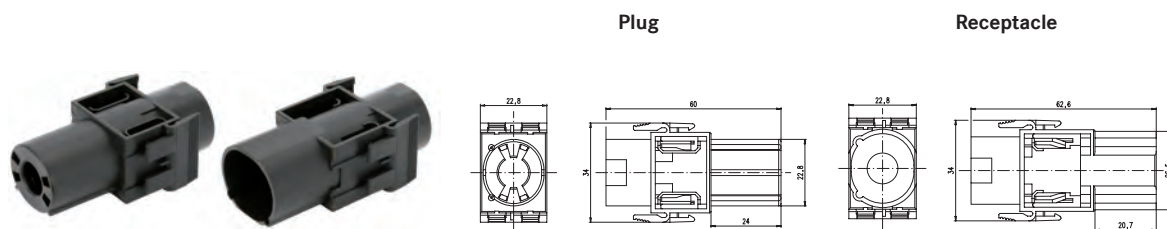
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EPIC® MC HHC1

1-position module for extremely high current transmission



contacts sold separately, see below

all dimensions are in mm

Technical data

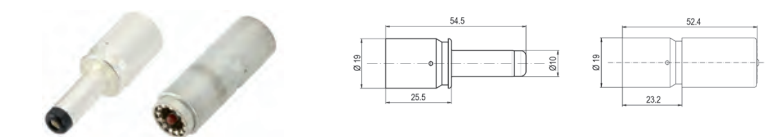
Temperature range:	-40°C to +125°C
Rated voltage:	1000V
Rated current:	220A
Wire size:	1/0 - 4/0 AWG (50 - 95 mm ²)

Complete the installationMC frames
page 371**Approvals**

Termination	# of slots in frame	Plug	Receptacle	Contact size
crimp termination	2	44424030	44424031	10 mm

10 mm contacts

Machined contacts for EPIC® MC series modules



Contact size		Silver-plated contacts		Pack size
mm ²	AWG	pin	socket	
50	1/0	44424032	44424035	1
70	2/0	44424033	44424036	1
95	3/0	44424034	44424037	1

Complete the installation

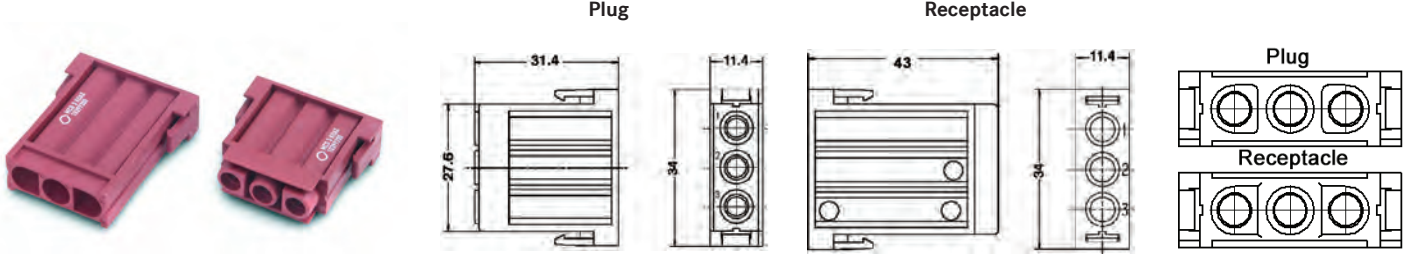
Crimp dies:	
50 mm ² :	44424038
70 mm ² :	44424039
95 mm ² :	44424040

use with hydraulic crimp tool Klauke type EK 60/22-L

If not otherwise specified, all values relating to the product are nominal values.
Photographs are not to scale and are not true representations of the products in question.

EPIC® MC 3 Coax

3-position module with coax contacts



contacts sold separately, see below

all dimensions are in mm

Technical data

Temperature range:	-40°C to +100°C
Rated voltage:	250V

Complete the installation



MC frames
page 371

Approvals



Termination	# of slots in frame	Plug	Receptacle
solder & crimp termination	1	10399200	10399300

Coax contacts



Cable type	Impedance	Pin	Socket
Solder contacts			
RG58 CU	50Ω	44429018	44429017
RG180 BU	75Ω	44429020	44429019
RG187 AU	75Ω	44429022	44429021
Solder/crimp contacts			
RG58	50Ω	11214200	11219200

Complete the installation



Crimp tool:
11147000



Crimp dies:
11147130



Removal tool:
11171100

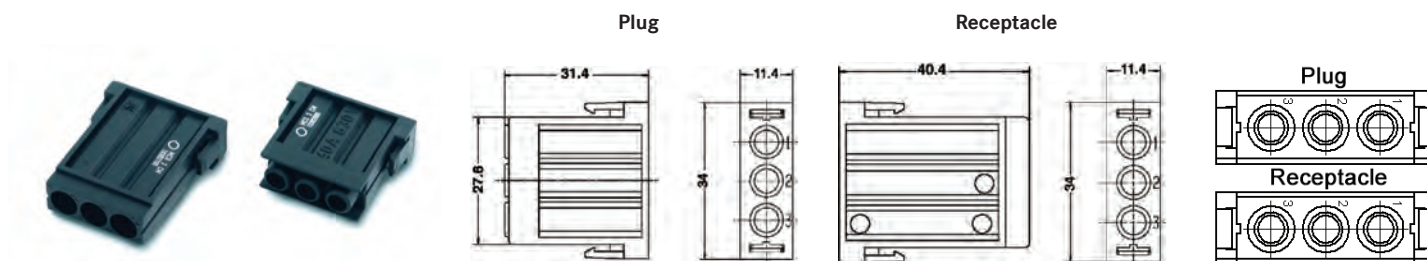
If not otherwise specified, all values relating to the product are nominal values.
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EPIC® MC 3

3-position module for high current transmission



contacts sold separately, see below

all dimensions are in mm

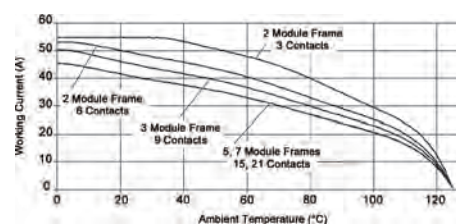
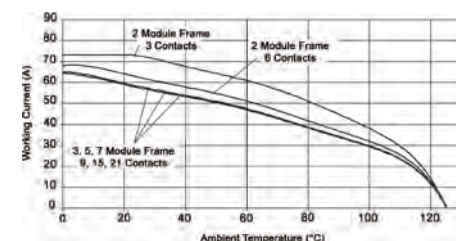
Technical data

Temperature range:	-40°C to +100°C
Rated voltage:	630V
Rated current:	40A
Wire size:	16 - 8 AWG (1.5 - 10 mm ²)

Complete the installation

MC frames
page 371Module
removal tool
11171200

Derating curve

10 AWG (6 mm²)8 AWG (10 mm²)

Approvals



3.6 mm contacts

Machined contacts for EPIC® MC series modules



contacts sold in bags of 100

Contact size		Stripping length mm	Bag of 100 silver contacts	
mm ²	AWG		pin	socket
1.5	16	10	1121070C	1121570C
2.5	14	10	1121060C	1121560C
4.0	12	10	1121000C	1121500C
6.0	10	10	1121010C	1121510C
10.0	8	10	1121020C	1121520C

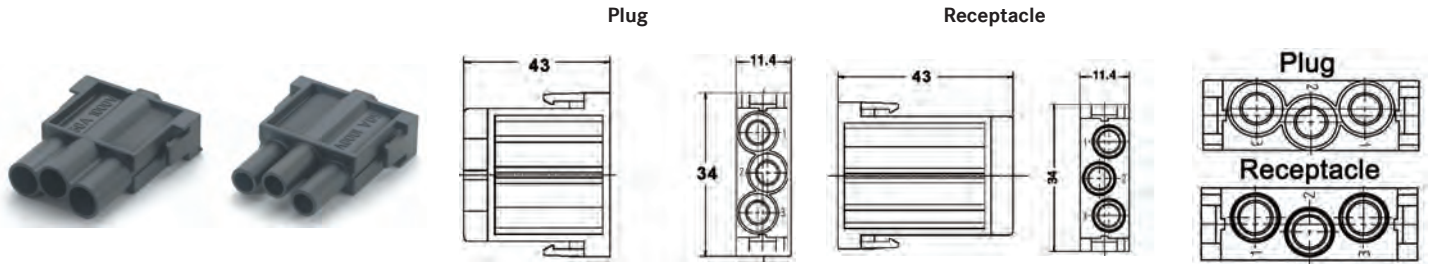
Complete the installation

Crimp tool:
11147000Crimp dies:
1.5 - 2.5 mm²: 11147110
4.0 - 10 mm²: 11147120Locator:
11147210Removal tool:
11171100

If not otherwise specified, all values relating to the product are nominal values.
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EPIC® MC 3 High Voltage

3-position module for high voltage transmission



contacts sold separately, see below

all dimensions are in mm

Technical data

Temperature range:	-40°C to +100°C
Rated voltage:	1000V
Rated current:	50A
Wire size:	16 - 8 AWG (1.5 - 10 mm²)

Complete the installation

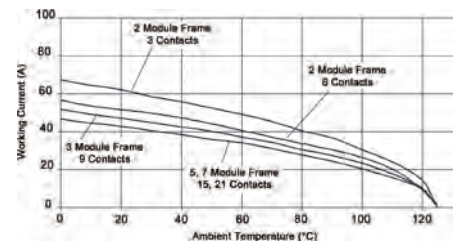


MC frames
page 371

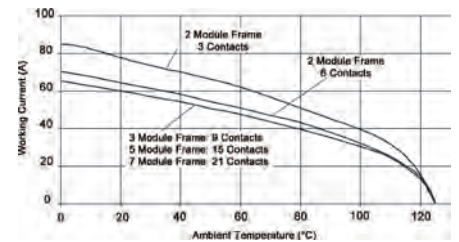
Approvals



Derating curve 10 AWG (6 mm²)



8 AWG (10 mm²)

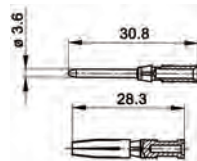


3.6 mm contacts

Machined contacts for EPIC® MC series modules



contacts sold in bags of 100



Contact size		Stripping length mm	Bag of 100 silver contacts	
mm²	AWG		pin	socket
1.5	16	10	1121070C	1121570C
2.5	14	10	1121060C	1121560C
4.0	12	10	1121000C	1121500C
6.0	10	10	1121010C	1121510C
10.0	8	10	1121020C	1121520C

Complete the installation



Crimp tool:
11147000



Crimp dies:
1.5 - 2.5 mm²: 11147110
4.0 - 10 mm²: 11147120



Locator:
11147210



Removal tool:
11171100

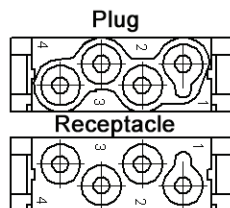
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EPIC® MC 4 HE

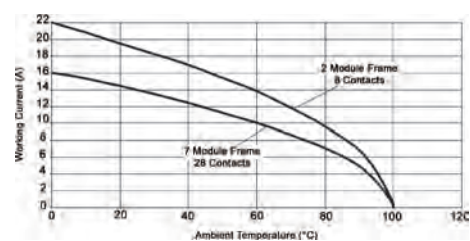
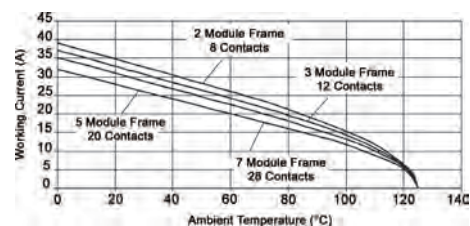
4-position module for medium current transmission



contacts sold separately, see below

Technical data

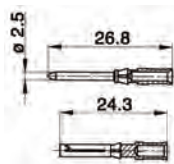
Temperature range:	-40°C to +100°C
Rated voltage:	630V
Rated current:	25A
Wire size:	20 - 12 AWG (0.5 - 4 mm ²)

Complete the installationMC frames
page 371**Approvals****Derating curve**14 AWG (2.5 mm²)12 AWG (4 mm²)

Termination	# of slots in frame	Plug	Receptacle	Contact size
crimp termination	1	10399000	10399100	2.5 mm

2.5 mm contacts

Machined contacts for EPIC® MC series modules



Contact size		Stripping length (mm)		# of marking tracks	Bag of 100 silver contacts		Bag of 100 gold contacts	
mm ²	AWG	pin	socket		pin	socket	pin	socket
0.5	20	7.4	7.3	—	11190000	11195000	11192000	11197000
0.75 - 1.0	18	7.4	7.3	1	11190100	11195100	11192100	11197100
1.5	16	7.4	7.3	2	11190200	11195200	11192200	11197200
2.5	14	7.4	7.3	3	11190300	11195300	—	—
4.0	12	7.4	7.3	—	11190400	11195400	—	—

contacts sold in bags of 100

**Complete the installation**Crimp tool:
11147000Crimp dies:
11147100Locator:
11147200Removal tool:
11182500

If not otherwise specified, all values relating to the product are nominal values.
Photographs are not to scale and are not true representations of the products in question.

EPIC® MC 4+PE High Voltage

4-position module with ground for high voltage applications



contacts sold separately, see below

Technical data

Temperature range:	-40°C to +100°C
Rated voltage:	1000V
Rated current:	16A
Wire size:	20 - 14 AWG (0.5 - 2.5 mm²)

Complete the installation



MC frames
page 371



Module
removal tool
11171200

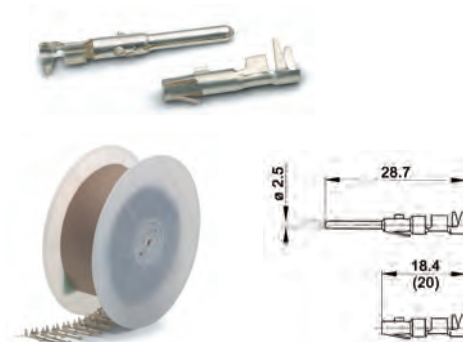
Termination	# of slots in frame	Plug	Receptacle	Contact size
crimp termination	1	10383200	10383300	2.5 mm

Approvals



2.5 mm contacts

Stamped & formed contacts for EPIC® MC series modules



contacts sold in bags of 100 or 1 reel

Complete the installation



Crimp tool:
11147000



Locator:
11147300



Crimp dies:
0.5 - 1.5 mm²: 11147180
1.5 - 2.5 mm²: 11147190



Crimp tool
for reel:
11153500



Removal tool:
11160000



Crimp dies for reel:
0.5 - 1.5 mm²: 11153700
1.5 - 2.5 mm²: 11153800

Contact size		Bag of 100 silver contacts		Reel of 100 silver contacts		Reel of 200 silver contacts	
mm²	AWG	pin	socket	pin	socket	pin	socket
0.5 - 1.5	20 - 16	11201000	11205000	—	—	11208000	11209000
1.5 - 2.5	16 - 14	11202000	11206000	11208500	11209500	—	—

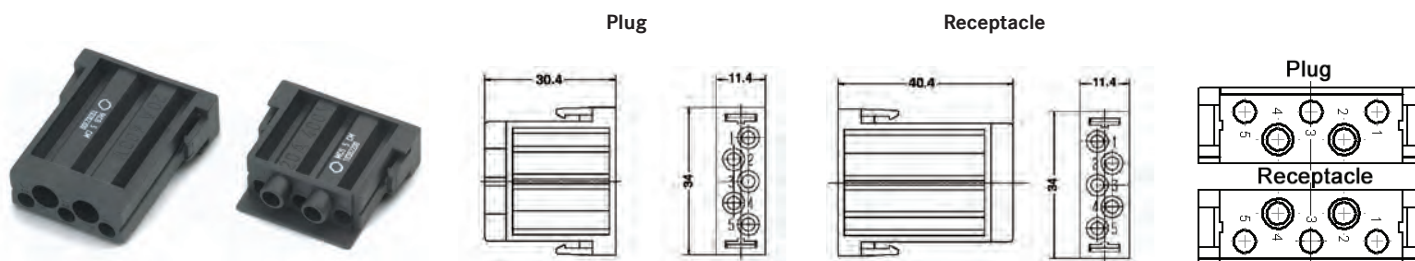
If not otherwise specified, all values relating to the product are nominal values.
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EPIC® MC 5

5-position module for medium current transmission



contacts sold separately, see below

all dimensions are in mm

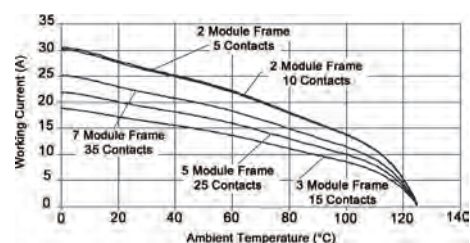
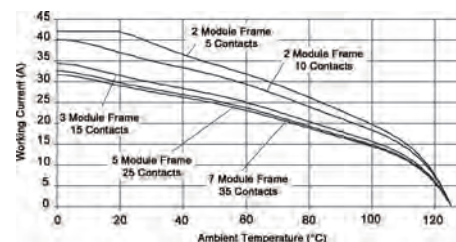
Technical data

Temperature range:	-40°C to +100°C
Rated voltage:	400V
Rated current:	20A
Wire size:	20 - 12 AWG (0.5 - 4 mm ²)

Complete the installation

MC frames
page 371Module
removal tool
11171200

Derating curve

14 AWG (2.5 mm²)12 AWG (4 mm²)

Approvals



Termination	# of slots in frame	Plug	Receptacle	Contact size
crimp termination	1	10382200	10382300	2.5 mm

2.5 mm contacts

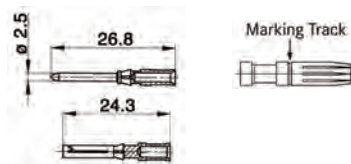
Machined contacts for EPIC® MC series modules



contacts sold in bags of 100

Contact size		Stripping length mm	# of marking tracks	Bag of 100 silver contacts	
mm ²	AWG			pin	socket
0.5	20	7.8	—	1121300C	1121800C
0.75 - 1.0	18	7.8	1	1121310C	1121810C
1.5	16	7.8	2	1121320C	1121820C
2.5	14	7.8	3	1121330C	1121830C
4.0	12	7.8	—	1121340C	1121840C

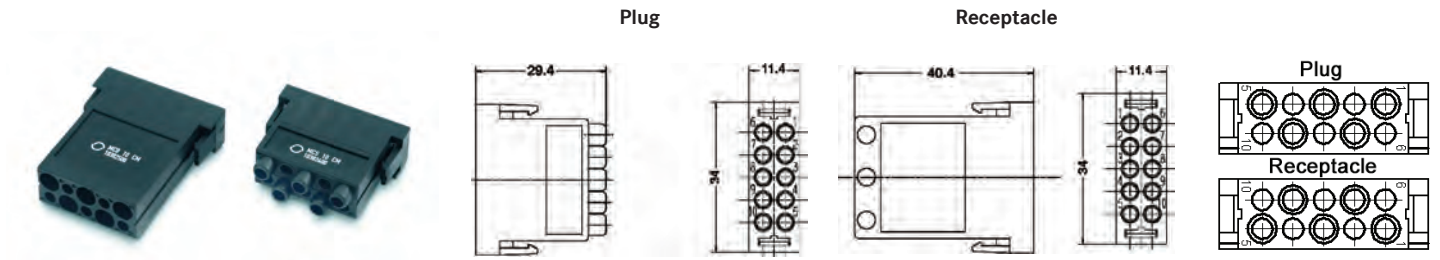
Complete the installation

Crimp tool:
11147000Crimp dies:
11147100Locator:
11147200Removal tool:
11171000

If not otherwise specified, all values relating to the product are nominal values.
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EPIC® MC 10

10-position module for signal transmission



contacts sold separately, see below

all dimensions are in mm

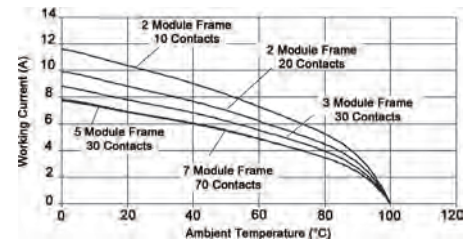
Technical data	
Temperature range:	-40°C to +100°C
Rated voltage:	400V
Rated current:	10A
Wire size:	26 - 14 AWG (0.14 - 2.5 mm ²)

Termination	# of slots in frame	Plug	Receptacle	Contact size
crimp termination	1	10382400	10382500	1.6 mm

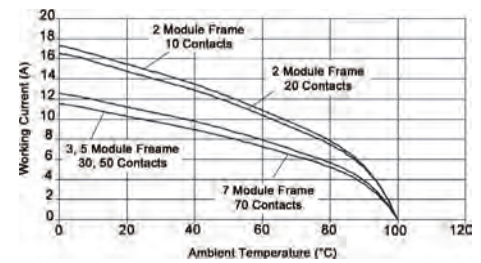
Complete the installation

-  MC frames page 371
-  Module removal tool 11171200

Derating curve 20 AWG (0.5 mm²)



16 AWG (1.5 mm²)



Approvals



1.6 mm contacts

Machined contacts for EPIC® MC series modules



contacts sold in bags of 100

Contact size		Stripping length mm	# of marking tracks	Bag of 100 silver contacts		Bag of 100 gold contacts	
mm ²	AWG			pin	socket	pin	socket
0.14 - 0.37	26 - 22	8	1	13162000	13163000	13162500	13163500
0.5	20	8	2	13162100	13163100	13162600	13163600
0.75 - 1.0	18	8	3	13162200	13163200	13162700	13163700
1.5	16	8	4	13162300	13163300	13162800	13163800
2.5	14	8	5	13162400	13163400	13162900	13163900

Contact tools

-  Crimp tool: 11147000
-  Crimp dies: 11147100
-  Locator: 11147200
-  Removal tool: 11161000

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EPIC® MC 10

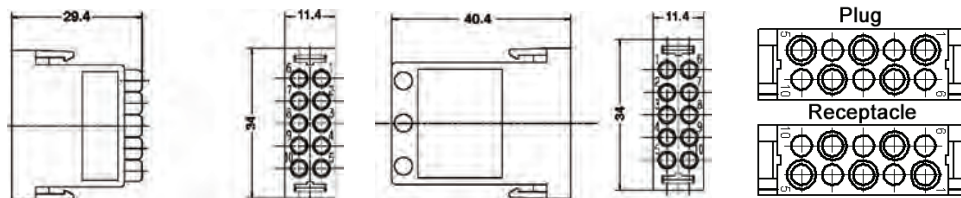
10-position module for signal transmission with stamped contacts



contacts sold separately, see below

Plug

Receptacle



all dimensions are in mm

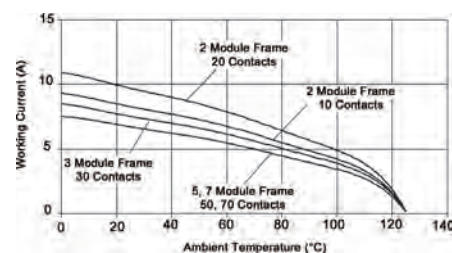
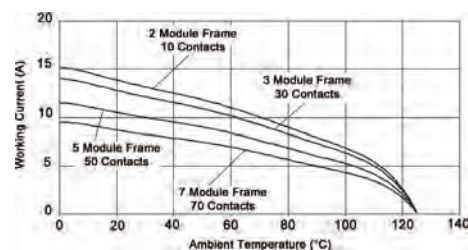
Technical data

Temperature range:	-40°C to +100°C
Rated voltage:	250V
Rated current:	10A
Wire size:	26 - 14 AWG (0.14 - 2.5 mm ²)

Complete the installation

MC frames
page 371Module
removal tool
11171200

Derating curve

20 AWG (0.5 mm²)16 AWG (1.5 mm²)

Approvals



Termination	# of slots in frame	Plug	Receptacle	Contact size
crimp termination	1	10383400	10383500	1.6 mm

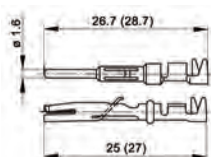
1.6 mm contacts

Stamped & formed contacts for EPIC® MC series modules



contacts sold in bags of 100 or 1 reel

Contact tools

Crimp tool:
11147000Locator:
11147300Removal tool:
11161000Crimp dies:
0.14 - 0.5 mm²: 11147170
0.5 - 1.5 mm²: 11147180
1.5 - 2.5 mm²: 11147190Crimp tool, die & locator:
0.14 - 0.5 mm²: 11147004
0.5 - 1.5 mm²: 11147005
1.5 - 2.5 mm²: 11147006

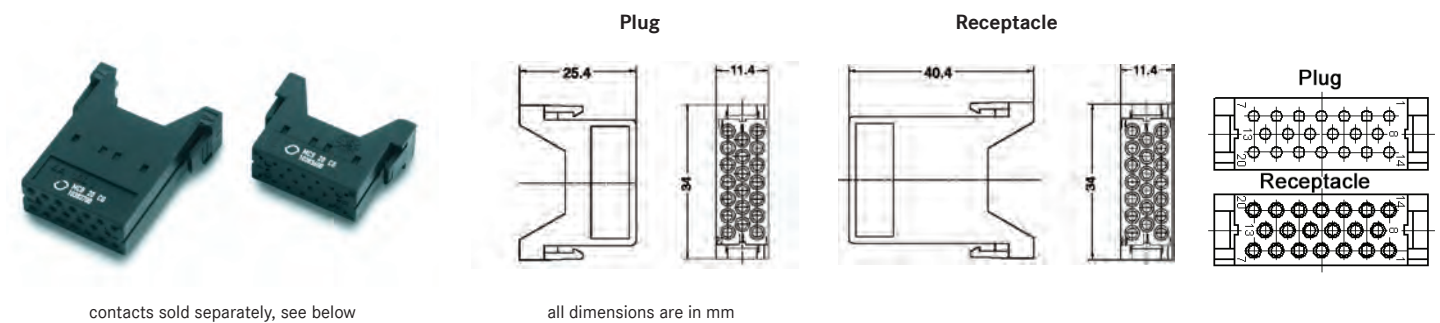
Contact size		Stripping length mm	Bag of 100 silver contacts		Bag of 100 gold contacts		Reel of 100 silver contacts: left-hand feed		Reel of 200 silver contacts: left-hand feed	
mm ²	AWG		pin	socket	pin	socket	pin	socket	pin	socket
0.14 - 0.5	26 - 20	2.5 - 0.5	11241100	11231100	11243100	11233100	—	—	11240700	11230700
0.5 - 1.5	20 - 16	3.5 - 0.5	11221000	11236100	11221300	11238100	—	—	11220700	11235700
1.5 - 2.5	16 - 14	3.5 - 0.5	11223500	11228500	—	—	11223000	11228000	—	—

Contact size		Stripping length mm	Reel of 2000 silver contacts: right-hand feed		Reel of 2000 gold contacts: right-hand feed		Reel of 2000 silver contacts: left-hand feed		Reel of 2000 gold contacts: left-hand feed	
mm ²	AWG		pin	socket	pin	socket	pin	socket	pin	socket
0.14 - 0.5	26 - 20	2.5 - 0.5	11240000	11230000	—	—	11240400	11230400	11240500	11230500
0.5 - 1.5	20 - 16	3.5 - 0.5	11220000	11235000	11220100	11235200	11226000	11226500	—	—
1.5 - 2.5	16 - 14	3.5 - 0.5	—	—	—	—	11222700	11222700	—	—

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EPIC® MC 20

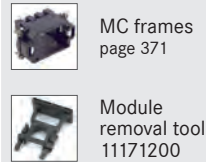
20-position module for signal transmission



Technical data

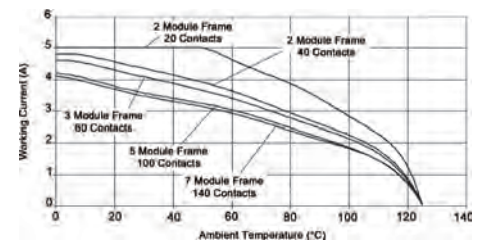
Temperature range:	-40°C to +100°C
Rated voltage:	100V
Rated current:	4A
Wire size:	28 - 20 AWG (0.08 - 0.56 mm ²)

Complete the installation

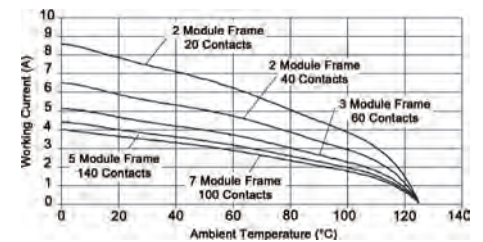


Derating curve

24 AWG (0.25 mm²)



20 AWG (0.5 mm²)



Termination	# of slots in frame	Plug	Receptacle	Contact size
crimp termination	1	10383600	10383700	1 mm

Approvals



1 mm contacts

Stamped & formed contacts for EPIC® MC series modules



Contact size		Stripping length mm	Reel of 500 gold contacts: left-hand feed	
mm ²	AWG*		pin	socket
0.08 - 0.2	28 - 26	2.5 ± 0.5	44429013	44429009
0.2 - 0.52	26 - 20	2.5 ± 0.5	44429014	44429010

* AWG conversion is approximate

Complete the installation



Crimp tool:
11158400



Removal tool:
11132500

for thermocouple applications



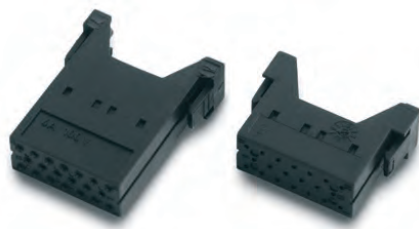
Contact size		Stripping length mm	Material	Polarity	Color	Type	Strip of 25 contacts	
mm ²	AWG*						pin	socket
0.25 - 0.52	24 - 20	2.5 ± 0.5	chromel	(+)	white	type K	TC-CH-P	TC-CH-S
0.25 - 0.52	24 - 20	2.5 ± 0.5	alumel	(-)	green	type K	TC-AL-P	TC-AL-S
0.25 - 0.52	24 - 20	2.5 ± 0.5	iron	(+)	black	type J	TC-IR-P	TC-IR-S
0.25 - 0.52	24 - 20	2.5 ± 0.5	constantan	(-)	yellow	type J	TC-CO-P	TC-CO-S

* AWG conversion is approximate

Alumel is a registered trademark of Concept Alloys, Inc.
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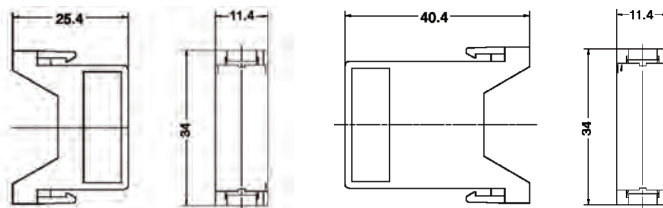
EPIC® MC 0

Dummy module



Plug

Receptacle



all dimensions are in mm

Termination	# of slots in frame	Plug	Receptacle
no termination	1	10399400	10399500

Complete the installation

MC frames
page 371Module
removal tool
11171200

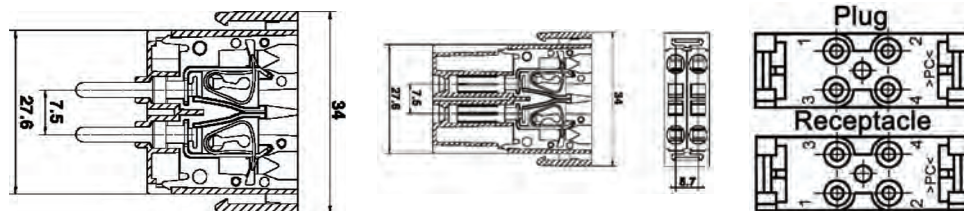
EPIC® MC Cage Clamp

4-position clamp termination module



Plug

Receptacle



all dimensions are in mm

Technical data

Temperature range:	-40°C to +100°C
Rated voltage:	400V
Rated current:	14A
Wire size:	20 - 14 AWG (0.5 - 2.5 mm ²)

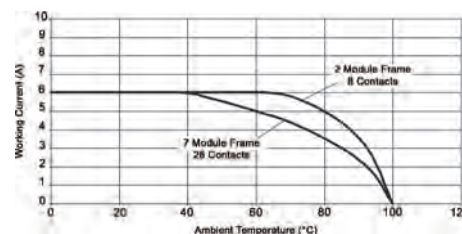
Wire size mm ²	AWG	# of slots in frame	Plug	Receptacle
0.5 - 2.5	20 - 14	1	10399600	10399700

Complete the installation

MC frames
page 371Module
removal tool
11171200

Derating curve

20 AWG (0.5 mm²)



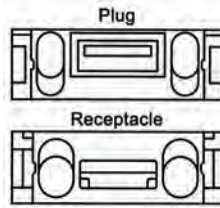
Approvals



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EPIC® MC PROFIBUS® DP

2 contacts + shield



mount in high profile housings only

Termination	# of slots in frame	Plug	Receptacle
screw	1	10390400	10390500

Technical data

Temperature range:	-20°C to +85°C
Rated voltage:	30V
Rated current:	1A
Transmission rate:	12 Mbit/s

Complete the installation



MC frames
page 371

Approvals



EPIC® MC Universal Bus

4 contacts + shield



mount in high profile housings only

Termination	Wire size		# of slots in frame	Plug	Receptacle
	mm ²	AWG			
screw	0.08 - 1.5	28 - 16	1	10390600	10390700

Technical data

Temperature range:	-20°C to +85°C
Rated voltage:	30V
Rated current:	1A
Max. transfer rate:	1.5 MB/s (bus feed-through)

Complete the installation



MC frames
page 371

Approvals



EPIC® MC BUS

8 contacts + shield



module



contact holder



contacts sold separately, see below

Complete the installation



MC frames
page 371

Approvals



Technical data

Temperature range:	-40°C to +125°C	Wire size:	26 - 14 AWG (0.14 - 2.5 mm ²)
Rated voltage:	50V	Cable clamping range:	3 - 9 mm
Rated current:	10A	Communication rate:	1 Gbit/s

Description	Number of contacts	# of slots in frame	Plug	Receptacle	Contact size
module only	—	2	10390410	10390411	1.6 mm
contact holder	4 + shield	—	10390412	10390413	1.6 mm

1.6 mm contacts

Machined contacts for EPIC® MC series modules



contacts sold in bags of 100

Contact size		Stripping length mm	# of marking tracks	Bag of 100 silver contacts		Bag of 100 gold contacts	
mm ²	AWG			pin	socket	pin	socket
0.14 - 0.37	26 - 22	8	1	13162000	13163000	13162500	13163500
0.5	20	8	2	13162100	13163100	13162600	13163600
0.75 - 1.0	18	8	3	13162200	13163200	13162700	13163700
1.5	16	8	4	13162300	13163300	13162800	13163800
2.5	14	8	5	13162400	13163400	13162900	13163900

Contact tools



Crimp tool:
11147000



Crimp dies:
11147100



Locator:
11147200



Removal tool:
11161000

If not otherwise specified, all values relating to the product are nominal values.
Photographs are not to scale and are not true representations of the products in question.

EPIC® MC Ethernet RJ45 + 4 power contacts



contacts & RJ45 connector separately, see below

Technical data

Temperature range:	-20°C to +85°C
Rated voltage:	600V (power contacts)
Rated current:	10A (power contacts)
Wire size	
- data contacts:	26 - 24 AWG (0.14 - 0.25 mm ²)
- power contacts:	26 - 14 AWG (0.14 - 2.5 mm ²)

Description	# of slots in frame	Plug	Receptacle	Contact size
module only	1	10344300	10345300	1.6 mm

Complete the installation



MC frames
page 371



CAT.5 RJ45
connector:
CE6326



Module
removal tool
11171200



RJ45
crimp tool:
CE5092

Approvals



1.6 mm contacts

Machined contacts for EPIC® series inserts



contacts sold in bags of 100

Contact size		Stripping length mm	# of marking tracks	Bag of 100 silver contacts		Bag of 100 gold contacts	
mm ²	AWG			pin	socket	pin	socket
0.14 - 0.37	26 - 22	8	1	13162000	13163000	13162500	13163500
0.5	20	8	2	13162100	13163100	13162600	13163600
0.75 - 1.0	18	8	3	13162200	13163200	13162700	13163700
1.5	16	8	4	13162300	13163300	13162800	13163800
2.5	14	8	5	13162400	13163400	13162900	13163900

Contact tools



Crimp tool:
11147000



Crimp dies:
11147100



Locator:
11147200



Removal tool:
11161000

If not otherwise specified, all values relating to the product are nominal values.
Photographs are not to scale and are not true representations of the products in question.

for current information see: www.lappusa.com • www.lappcanada.com

Courtesy of Steven Engineering, Inc - (800) 258-9200 - sales@steveneng.com - www.stevenengineering.com

EPIC® MC Pneumatic

Pneumatic modules for 1 or 2 hoses



These modules are used for easy and fast connection of compressed air hoses. Applications include machine building, mini pneumatics, measurement, and control technology.

Application advantage

- For compressed air hoses with inner diameters of 2.5 mm or 4 mm and a maximum outer diameter of 8 mm.
- Typically used with 4 x 2.5 mm or 6 x 4 mm metric tubing.
- Receptacles include built-in valve.

Technical data

Number of ports:	1, 2
Max. air pressure:	10 bar (145 psi)
Temperature range:	-20°C to +100°C
Mechanical mating cycles:	100

Complete the installation

MC frames
page 371



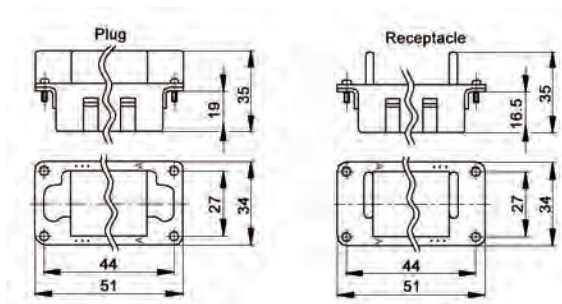
Module
removal tool
11171200

Approvals

Hose inner diameter	# of slots in frame	1 port		2 ports	
		plug	receptacle	plug	receptacle
2.5 mm	1	44424004	44424005	44424008	44424009
4.0 mm	1	44424006	44424007	44424010	44424011

EPIC® MC 2 module frame

Modular frame with 2 positions



all dimensions are in mm

Positions	Plug	Receptacle
2	10381000	10381100
2+PE	10349000	10349100

Compatible housing



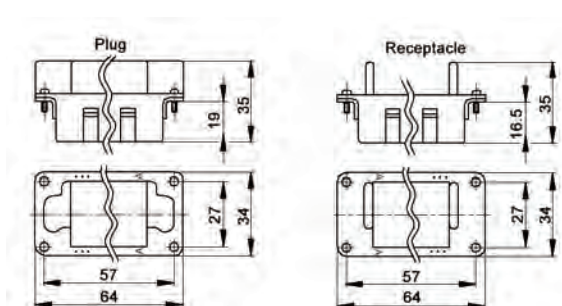
HB 6
page 379

Approvals



EPIC® MC 3 module frame

Modular frame with 3 positions



all dimensions are in mm

Positions	Plug	Receptacle
3	10381200	10381300

Compatible housing



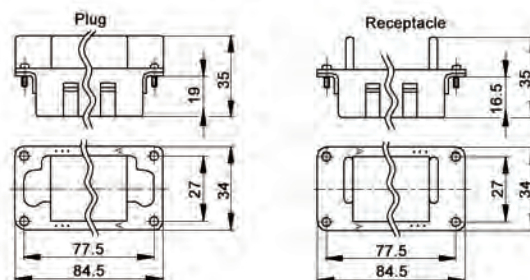
HB 10
page 382

Approvals



EPIC® MC 5 module frame

Modular frame with 5 positions



all dimensions are in mm

Positions	Plug	Receptacle
5	10381400	10381500

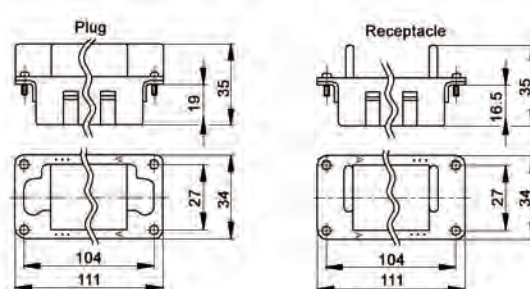
Compatible housing

HB 16
page 388

Approvals

**EPIC® MC 7 module frame**

Modular frame with 7 positions



all dimensions are in mm

Positions	Plug	Receptacle
7	10381600	10381700

Compatible housing

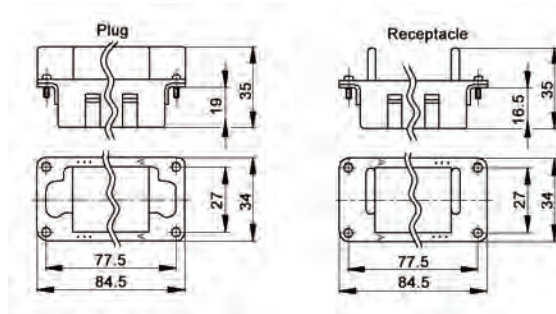
HB 24
page 394

Approvals



EPIC® MC 10 module frame

Modular frames with 10 positions



all dimensions are in mm

Positions	Plug	Receptacle
5 x2	10381400 (x2)	10381500 (x2)

x2 MC 5 frames, order two frames

Compatible housing



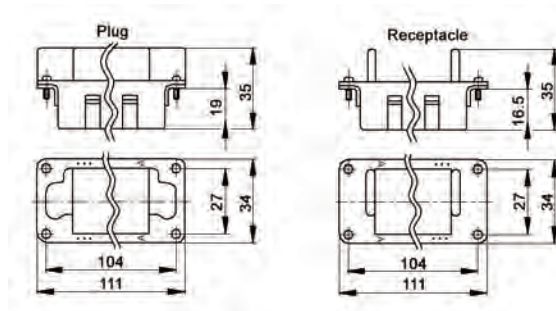
HB 32
page 400

Approvals



EPIC® MC 14 module frame

Modular frames with 14 positions



all dimensions are in mm

Positions	Plug	Receptacle
7 x2	10381600 (x2)	10381700 (x2)

x2 MC 7 frames, order two frames

Compatible housing



HB 48
page 402

Approvals



EPIC® Power K series

Screw-terminated inserts for combination power & control applications



EPIC® Power K series inserts provide a combination of power contacts (up to 80A) and signal contacts (up to 16A) in a single insert package. This can save valuable panel space by allowing one connector to do the job of two. These inserts fit into EPIC® HB series housings.

Technical data

Number of contacts: 4 power + 0, 2, 8 signal

Temperature range: -40°C to +125°C

Pollution level: 3

Rated voltage:

- UL/CSA:
- power: 830V
- signal: 400V

Test voltage:

- 4 power + 0 signal: 6 kV
- 4 power + 2 signal: 6 kV / 4 kV
- 4 power + 8 signal: 4 kV

Rated current:

- 4 power + 0 signal: 80A; 830V
- 4 power + 2 signal: 80A, 16A; 830/400V
- 4 power + 8 signal: 80A, 16A; 400V

Wire size:

- screw termination:
- power contacts: 16 - 6 AWG (1.5 - 16 mm²)
- signal contacts: 20 - 14 AWG (0.5 - 2.5 mm²)

Material:

- molding: fiberglass-reinforced thermoplastic resin
- contacts: hard silver-plated copper alloy

Contact resistance:

- principal contacts: < 0.3 mΩ
- auxiliary contacts: < 1 mΩ

Approvals:

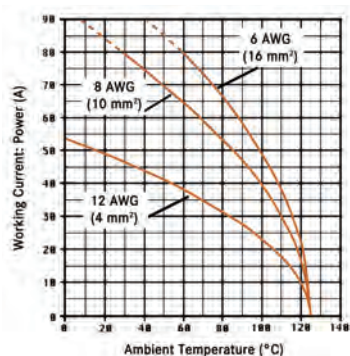
- UL: File #E115072
- File #E75770
- CSA: File #LR82270

* In dry, non-conductive, non-corrosive environments when protected in a housing rated at least IP54 and disconnected for cycling and maintenance only.

EPIC® Power K derating curves

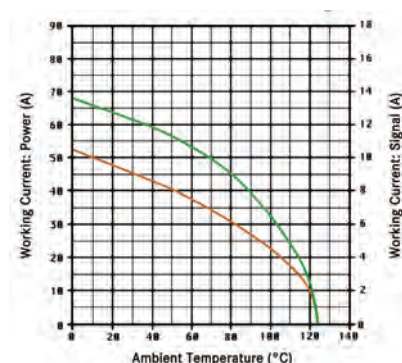
EPIC® Power K 4/0

12 - 6 AWG (4 - 16 mm²) power
0 signal



EPIC® Power K 4/2

12 AWG (4 mm²) power
18 AWG (1 mm²) signal

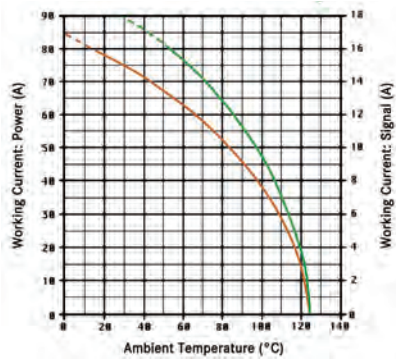


EPIC® Power K derating curves

EPIC® Power K 4/2

8 AWG (10 mm²) power

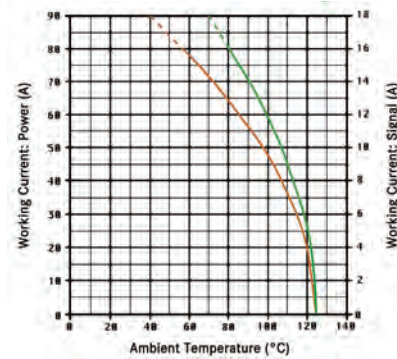
16 AWG (1.5 mm²) signal



EPIC® Power K 4/2

6 AWG (10 mm²) power

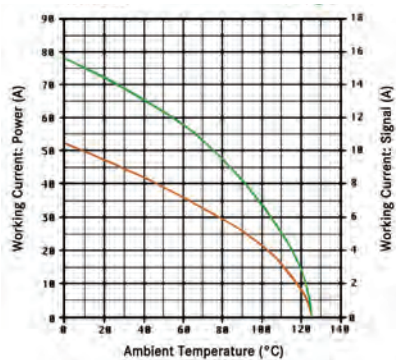
14 AWG (2.5 mm²) signal



EPIC® Power K 4/8

12 AWG (4 mm²) power

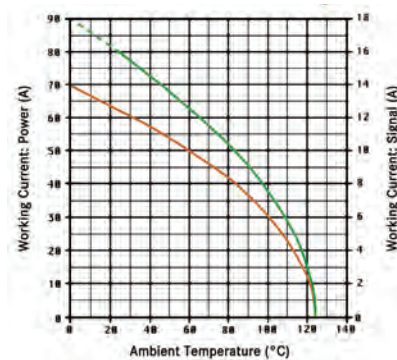
18 AWG (1 mm²) signal



EPIC® Power K 4/8

10 AWG (6 mm²) power

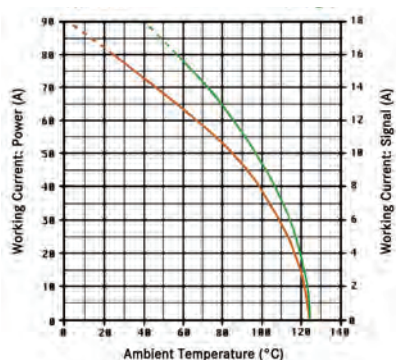
18 AWG (1 mm²) signal



EPIC® Power K 4/8

8 AWG (10 mm²) power

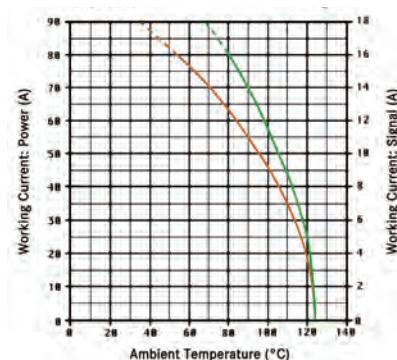
16 AWG (1.5 mm²) signal



EPIC® Power K 4/8

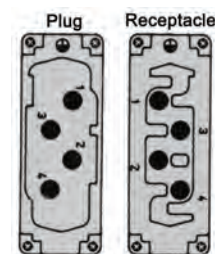
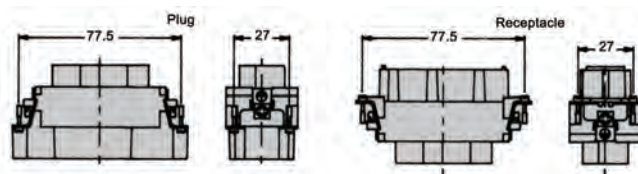
6 AWG (16 mm²) power

14 AWG (2.5 mm²) signal



EPIC® Power K 4/0

4 power + 0 signal contacts



all dimensions are in mm

view from cable side

Description	Plug	Receptacle
4/0	44424041	44424042

Compatible housing



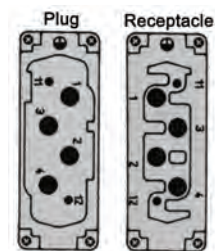
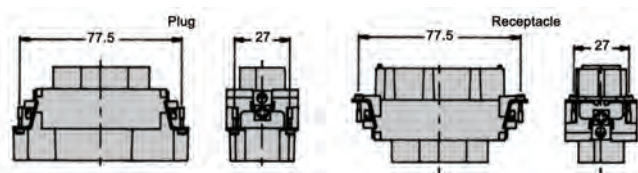
HB 16
page 388

Approvals



EPIC® Power K 4/2

4 power + 2 signal contacts



all dimensions are in mm

view from cable side

Description	Plug	Receptacle
4/2	44424043	44424044

Compatible housing



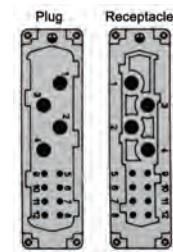
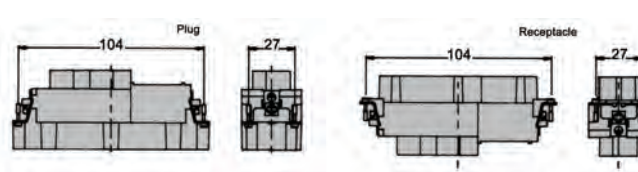
HB 16
page 388

Approvals



EPIC® Power K 4/8

4 power + 8 signal contacts



all dimensions are in mm

view from cable side

Description	Plug	Receptacle
4/8	11/2408	11/1408

Compatible housing



HB 24
page 394

Approvals



If not otherwise specified, all values relating to the product are nominal values.
Photographs are not to scale and are not true representations of the products in question.

HB series

- 379 EPIC® HB 6**
Hoods, bases & couplers with single lever & bolts
- 382 EPIC® HB 10 with single lever**
Hoods, bases & couplers with single lever & bolts
- 385 EPIC® HB 10 with double levers**
Hoods, bases & couplers with double levers & bolts
- 388 EPIC® HB 16 with single lever**
Hoods, bases & couplers with single lever & bolts
- 391 EPIC® HB 16 with double levers**
Hoods, bases & couplers with double levers & bolts
- 394 EPIC® HB 24 with single lever**
Hoods, bases & couplers with single lever & bolts
- 397 EPIC® HB 24 with double levers**
Hoods, bases & couplers with double levers & bolts
- 400 EPIC® HB 32**
Hoods, bases & couplers with double levers & bolts
- 402 EPIC® HB 48**
Hoods & bases with single lever & bolts

ULTRA series

- 405 EPIC® ULTRA HA 3**
Hoods, bases & couplers with single lever & bolts
- 407 EPIC® ULTRA HB 6**
Hoods & bases with single lever & bolts
- 409 EPIC® ULTRA HB 10**
Hoods & bases with double levers & bolts
- 410 EPIC® ULTRA HB 16**
Hoods & bases with double levers & bolts
- 411 EPIC® ULTRA HB 24**
Hoods & bases with double levers & bolts

HA series

- 413 EPIC® HA 3/4**
Hoods, bases & couplers with single lever & bolts
- 415 EPIC® HA 10**
Hoods, bases & couplers with single lever & bolts
- 417 EPIC® HA 16**
Hoods, bases & couplers with single lever & bolts
- 419 EPIC® HA 32**
Hoods, bases & couplers with double levers & bolts
- 421 EPIC® HA 48**
Hoods & bases with double levers & bolts
- 422 EPIC® HA 64**
Hoods & bases with single lever & bolts

EPIC® HB series



EPIC® HB rectangular connectors comply with all applicable requirements of Underwriters Laboratory (UL) Standards 1977 and 498, VDE Standard 0110 for creepage and clearance distances, and VDE Standard 0627 for the connector design.

The recognized UL file number and Canadian Standards Association (CSA) for EPIC® connectors are UL #E75770 and CSA #LR53004-1.

EPIC® connectors meet UL 50 E Type 4 & 12, and provide IP65 protection only when in the mated condition.

HB housing	EPIC® insert series									
	HBE	HEE	HBS	Power HS	HBVE	HD	HDD	MH	MC	Power K
HB 6	HBE 6	HEE 10	—	HS 4	—	—	HDD 24	MH 6	MC 2	—
HB 10	HBE 10	HEE 18	—	—	HBVE 3	—	HDD 42	MH 10	MC 3	—
HB 16	HBE 16	HEE 32	HBS 6	—	HBVE 6	HD 40	HDD 72	MH 16	MC 5	4+0, 4+2
HB 24	HBE 24	HEE 46	—	—	HBVE 10	HD 64	HDD 108	MH 24	MC 7	4+8
HB 32	HBE 32	HEE 64	HBS 12	—	—	HD 80	HDD 144	—	MC 10	—
HB 48	HBE 48	HEE 92	—	—	—	HD 128	HDD 216	—	MC 14	—

Technical data


Specifications:

DIN 43652


Temperature range:

- short-term:

-40°C to +100°C
up to +125°C


IP Protection class:

see individual product page


Material:

- body:

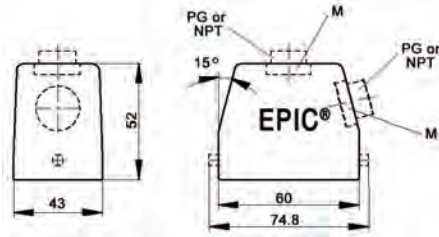
- levers & bolts:

- seal:

powder-coated aluminum alloy
zinc-plated steel
NBR

EPIC® HB 6 standard hood

Single-entry hood with single lever bolts



all dimensions are in mm

Technical data

IP Protection class: UL 50E Type 4, 12
IP65

Complete the installation



HB dust covers
page 429

Approvals



PG

PG hood		SKINTOP® gland	
size	part number	plastic	metal
Top entry			
PG 13	100110R	53015030	52015700
PG 16	100210	53015040	52015740
Side entry			
PG 13	100120	53015030	52015740
PG 16	100220	53015040	52015740

PG hood provided with EPIC® SM/SP gland

NPT

NPT hood		SKINTOP® gland	
size	part number	plastic	metal
Top entry			
1/2"	100110NP	S1112	53112024
1/2"	100210NP*	S1112	53112024
Side entry			
1/2"	100120NP	S1112	53112024
1/2"	100220NP*	S1112	53112024

NPT hood provided with NPT fitting

* Internal entry is wider for ease of assembly

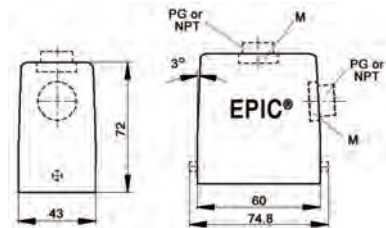
metric

Metric hood		SKINTOP® gland	
size	part number	plastic	metal
Top entry			
M20	19011000	53111020	53112020
M25	19021000	53111030	53112030
Side entry			
M20	19012000	53111030	53112030
M25	19022000	53111030	53112030

* Metric top-entry hoods do not come with a neck

EPIC® HB 6 high profile hood

Single-entry hood with single lever bolts



all dimensions are in mm

Technical data

IP Protection class: UL 50E Type 4, 12
IP65

Complete the installation



HB dust covers
page 429

Approvals



PG

PG hood		SKINTOP® gland	
size	part number	plastic	metal
Top entry			
PG 21	700202	53015050	52015750
PG 29	700204R	53015060	52015760
Side entry			
PG 21	700222	53015050	52015750
PG 29	700224R	53015060	52015760

PG hood provided with EPIC® SM/SP gland

NPT

NPT hood		SKINTOP® gland	
size	part number	plastic	metal
Top entry			
3/4"	700202NP	S1134	53112034
1"	700204NP	S1101	53112044
Side entry			
3/4"	700222NP	S1134	53112034
1"	700224NP	S1101	53112044

NPT hood provided with NPT fitting

metric

Metric hood		SKINTOP® gland	
size	part number	plastic	metal
Top entry			
M25	79020200	53111030	53112030
M32	79020400	53111040	53112040
Side entry			
M25	79022200	53111030	53112030
M32	79022400	53111040	53112040

* Metric hoods do not come with a neck

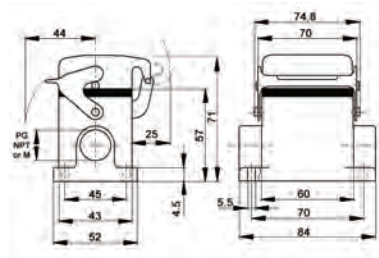
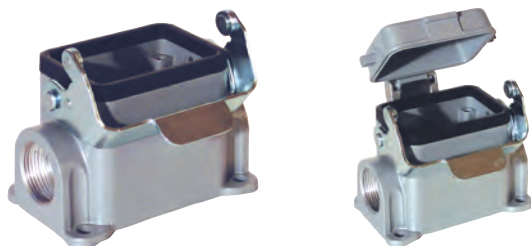
Recommended SKINTOP® assumes minimal OD variance. Additional configurations are available; please see our SKINTOP® section.
If not otherwise specified, all values relating to the product are nominal values.
Photographs are not to scale and are not true representations of the products in question.

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EPIC® HB 6 standard surface mount base

Surface mount base with single lever



all dimensions are in mm

Technical data

IP Protection class: UL 50E Type 4, 12
IP65

Complete the installation



HB dust covers
page 429

Approvals



PG

PG base size	PG base part number	Dust cover	SKINTOP® gland plastic	SKINTOP® gland metal
One entry				
16	100050	no	53015040	52015740
16	100070	yes	53015040	52015740
Two entries				
16	100060	no	53015040	52015740
16	100090	yes	53015040	52015740

PG base provided with EPIC® SM/SP gland

NPT

NPT base size	NPT base part number	Dust cover	SKINTOP® gland plastic	SKINTOP® gland metal
One entry				
1/2"	100050NP	no	S1112	53112024
1/2"	100070NP	yes	S1112	53112024
Two entries				
1/2"	100060NP	no	S1112	53112024
1/2"	100090NP	yes	S1112	53112024

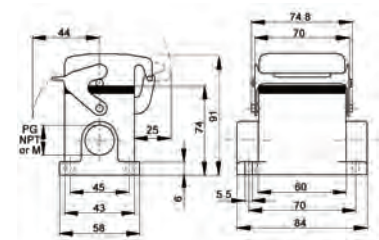
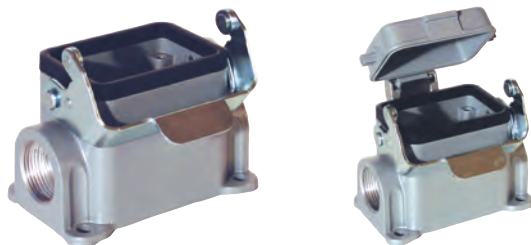
NPT base provided with NPT fitting

metric

Metric base size	Metric base part number	Dust cover	SKINTOP® gland plastic	SKINTOP® gland metal
One entry				
20	19005000	no	53111020	53112020
20	19007000	yes	53111020	53112020
25	79005600	no	53111030	53112030
25	79015600	yes	53111030	53112030
Two entries				
20	19006000	no	53111020	53112020
20	19009000	yes	53111020	53112020
25	79006600	no	53111030	53112030
25	79016600	yes	53111030	53112030

EPIC® HB 6 high profile surface mount base

Surface mount base with single lever



all dimensions are in mm

Technical data

IP Protection class: UL 50E Type 4, 12
IP65

Complete the installation



HB dust covers
page 429

Approvals



PG

PG base size	PG base part number	Dust cover	SKINTOP® gland plastic	SKINTOP® gland metal
One entry				
21	700052	no	53015050	52015750
21	700152	yes	53015050	52015750
29	700054	no	53015060	52015760
Two entries				
21	700062	no	53015050	52015750
21	700162	yes	53015050	52015750

PG base provided with EPIC® SM/SP gland

NPT

NPT base size	NPT base part number	Dust cover	SKINTOP® gland plastic	SKINTOP® gland metal
One entry				
3/4"	700052NP	no	S1134	53112034
3/4"	700152NP	yes	S1134	53112034
1"	700054NP	no	S1101	53112044
Two entries				
3/4"	700062NP	no	S1134	53112034
3/4"	700162NP	yes	S1134	53112034

NPT base provided with NPT fitting

metric

Metric base size	Metric base part number	Dust cover	SKINTOP® gland plastic	SKINTOP® gland metal
One entry				
25	79005200	no	53111030	53112030
25	79015200	yes	53111030	53112030
32	79005400	no	53111040	53112040
32	79015400	yes	53111040	53112040
Two entries				
25	79006200	no	53111030	53112030
25	79016200	yes	53111030	53112030
29	79006400	no	53111040	53112040
29	79015400	yes	53111040	53112040

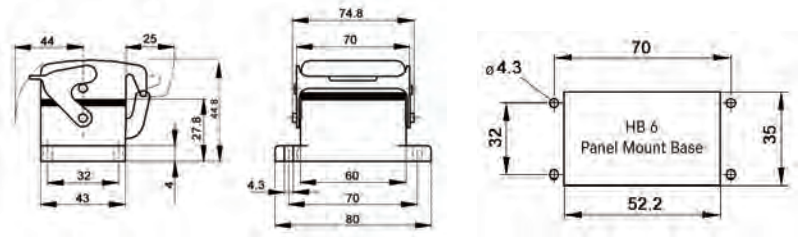
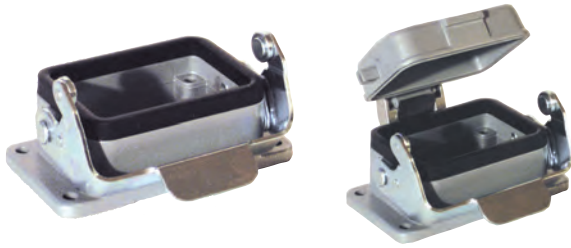
Recommended SKINTOP® assumes minimal OD variance. Additional configurations are available; please see our SKINTOP® section.

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EPIC® HB 6 panel mount base

Panel mount base with single lever



all dimensions are in mm

Technical data

IP Protection class: UL 50E Type 4, 12
IP65

Complete the installation



HB dust covers
page 429

Approvals



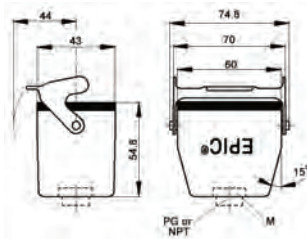
Dust cover included	Part number
no	100030C0
yes	100040C0

EPIC® HB 6 cable coupler hood

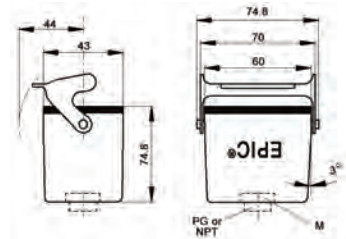
Cable coupler with single lever



standard profile



high profile



all dimensions are in mm

Technical data

IP Protection class: UL 50E Type 4, 12
IP65

Complete the installation



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Approvals



PG

PG coupler		SKINTOP® gland	
size	part number	plastic	metal
Standard profile			
PG 13	100140	53015050	52015750
PG 16	100240	53015060	52015760
High profile			
PG 21	700102	53015050	52015750
PG 29	700104	53015060	52015760

PG coupler provided with EPIC® SM/SP gland

NPT

NPT coupler		SKINTOP® gland	
size	part number	plastic	metal
Standard profile			
1/2"	100140NP	S 1112	53112024
1/2"	100240NP*	S 1112	53112024
High profile			
3/4"	700102NP	S 1134	53112034
1"	700104NP	S 1101	53112044

NPT coupler provided with NPT fitting

* Internal entry is wider for ease of assembly

metric

Metric coupler*		SKINTOP® gland	
size	part number	plastic	metal
Standard profile			
M20	19014000	53111030	53112030
M25	19024000	53111040	53112040
High profile			
M25	79010200	53111030	53112030

* Metric couplers do not come with a neck

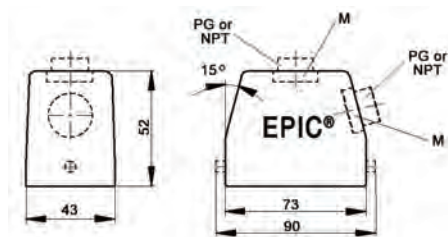
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EPIC® HB 10 standard hood

Single-entry hood with single lever bolts



all dimensions are in mm

Technical data

IP Protection class: UL 50E Type 12
NEMA 4
IP65

Complete the installation



HB dust covers
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Approvals



PG

PG hood		SKINTOP® gland	
size	part number	plastic	metal
Top entry			
PG 16	100409	53015040	52015740
PG 21	100407	53015050	52015750
Side entry			
PG 16	100429	53015040	52015740
PG 21	100428	53015050	52015750

PG hood provided with EPIC® SM/SP gland

NPT

NPT hood		SKINTOP® gland	
size	part number	plastic	metal
Top entry			
1/2"	100409NP	S1112	53112024
3/4"	100407NP	S1134	53112034
Side entry			
1/2"	100429NP	S1112	53112024
3/4"	100428NP	S1134	53112034

NPT hood provided with NPT fitting

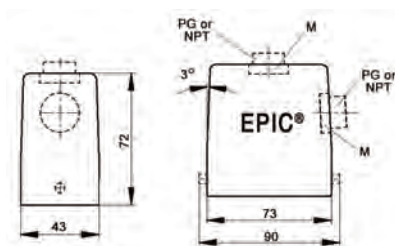
metric

Metric hood		SKINTOP® gland	
size	part number	plastic	metal
Top entry*			
M20	19040900	53111020	53112020
M25	19040700	53111030	53112030
Side entry			
M20	19042900	53111030	53112030
M25	19042800	53111030	53112030

* Metric top-entry hoods do not come with a neck

EPIC® HB 10 high profile hood

Single-entry hood with single lever bolts



all dimensions are in mm

Technical data

IP Protection class: UL 50E Type 12
NEMA 4
IP65

Complete the installation



HB dust covers
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Approvals



PG

PG hood		SKINTOP® gland	
size	part number	plastic	metal
Top entry			
PG 21	700442	53015050	52015750
PG 29	700444	53015060	52015760
Side entry			
PG 21	700542	53015050	52015750
PG 29	700544	53015060	52015760

PG hood provided with EPIC® SM/SP gland

NPT

NPT hood		SKINTOP® gland	
size	part number	plastic	metal
Top entry			
3/4"	700442NP	S1134	53112034
1"	700444NP	S1101	53112044
Side entry			
3/4"	700542NP	S1134	53112034
1"	700544NP	S1101	53112044

NPT hood provided with NPT fitting

metric

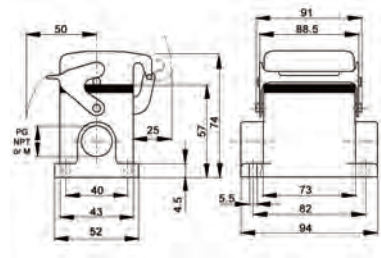
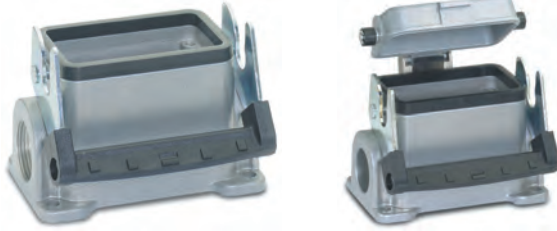
Metric hood		SKINTOP® gland	
size	part number	plastic	metal
Top entry*			
M25	79044200	53111030	53112030
M32	79044400	53111040	53112040
Side entry			
M25	79054200	53111030	53112030
M29	79054400	53111040	53112040

* Metric hoods do not come with a neck

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EPIC® HB 10 standard surface mount base

Surface mount base with single lever



all dimensions are in mm

Technical data

IP Protection class:	UL 50E Type 12 NEMA 4 IP65
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Complete the installation



HB dust covers
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Approvals



PG

PG base size	PG base part number	Dust cover	SKINTOP® gland plastic	SKINTOP® gland metal
One entry				
16	100349	no	53015040	52015740
16	100369	yes	53015040	52015740
21	100347	no	53015050	52015750
Two entries				
16	100359	no	53015040	52015740
16	100389	yes	53015040	52015740

PG base provided with EPIC® SM/SP gland

NPT

NPT base size	NPT base part number	Dust cover	SKINTOP® gland plastic	SKINTOP® gland metal
One entry				
½"	100349NP	no	S1112	53112024
½"	100369NP	yes	S1112	53112024
¾"	100347NP	no	S1134	53112034
Two entries				
½"	100359NP	no	S1112	53112024
½"	100389NP	yes	S1112	53112024

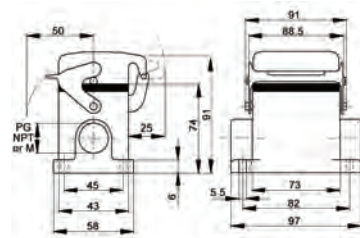
NPT base provided with NPT fitting

metric

Metric base size	Metric base part number	Dust cover	SKINTOP® gland plastic	SKINTOP® gland metal
One entry				
20	19034900	no	53111020	53112020
20	19036900	yes	53111020	53112020
25	19034700	no	53111030	53112030
25	79064600	yes	53111030	53112030
Two entries				
20	19035900	no	53111020	53112020
20	19038900	yes	53111020	53112020
25	79061600	no	53111030	53112030

EPIC® HB 10 high profile surface mount base

Surface mount base with single lever



all dimensions are in mm

Technical data

IP Protection class:	UL 50E Type 12 NEMA 4 IP65
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Complete the installation



HB dust covers
page 429

Approvals



PG

PG base size	PG base part number	Dust cover	SKINTOP® gland plastic	SKINTOP® gland metal
One entry				
21	700602	no	53015050	52015750
21	700642	yes	53015050	52015750
29	700604R	no	53015060	52015760
29	700644	yes	53015050	52015750
Two entries				
21	700612	no	53015050	52015750
21	700652	yes	53015050	52015750
29	700614	no	53015060	52015760
29	700654	yes	53015060	52015760

PG base provided with EPIC® SM/SP gland

NPT

NPT base size	NPT base part number	Dust cover	SKINTOP® gland plastic	SKINTOP® gland metal
One entry				
¾"	700602NP	no	S1134	53112034
¾"	700642NP	yes	S1134	53112034
1"	700604NP	no	S1101	53112044
1"	700644NP	yes	S1101	53112044
Two entries				
¾"	700612NP	no	S1134	53112034
¾"	700652NP	yes	S1134	53112034
1"	700614NP	no	S1101	53112044
1"	700654NP	yes	S1101	53112044

NPT base provided with NPT fitting

metric

Metric base size	Metric base part number	Dust cover	SKINTOP® gland plastic	SKINTOP® gland metal
One entry				
25	79060200	no	53111030	53112030
25	79064200	yes	53111030	53112030
32	79060400	no	53111040	53112040
32	79064400	yes	53111040	53112040
Two entries				
25	79061200	no	53111030	53112030
25	79065200	yes	53111030	53112030
32	79061400	no	53111030	53112030
32	79065400	yes	53111030	53112030

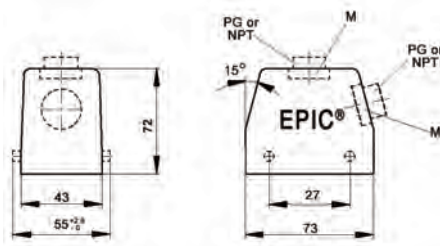
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EPIC® HB 10 standard hood

Single-entry hood with double lever bolts



all dimensions are in mm

Technical data

IP Protection class: UL 50E Type 4, 12
IP65

Complete the installation



HB dust covers
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Approvals



PG

PG hood		SKINTOP® gland	
size	part number	plastic	metal
Top entry			
PG 16	100400	53015040	52015740
PG 21	100401	53015050	52015750
Side entry			
PG 16	100420	53015040	52015740
PG 21	100421	53015050	52015750

PG hood provided with EPIC® SM/SP gland

NPT

NPT hood		SKINTOP® gland	
size	part number	plastic	metal
Top entry			
1/2"	100400NP	S1112	53112024
3/4"	100401NP	S1134	53112034
Side entry			
1/2"	100420NP	S1112	53112024
3/4"	100421NP	S1134	53112034

NPT hood provided with NPT fitting

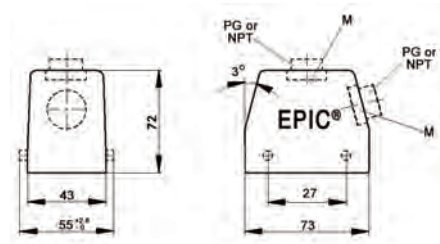
metric

Metric hood		SKINTOP® gland	
size	part number	plastic	metal
Top entry*			
M20	19040000	53111020	53112020
M25	19040100	53111030	53112030
Side entry			
M20	19042000	53111030	53112030
M25	19042100	53111030	53112030

* Metric top-entry hoods do not come with a neck

EPIC® HB 10 high profile hood

Single-entry hood with double lever bolts



all dimensions are in mm

Technical data

IP Protection class: UL 50E Type 4, 12
IP65

Complete the installation



HB dust covers
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Approvals



PG

PG hood		SKINTOP® gland	
size	part number	plastic	metal
Top entry			
PG 21	700504	53015050	52015750
PG 29	700506	53015060	52015760
Side entry			
PG 21	700524	53015050	52015750
PG 29	700526	53015060	52015760

PG hood provided with EPIC® SM/SP gland

NPT

NPT hood		SKINTOP® gland	
size	part number	plastic	metal
Top entry			
3/4"	700504NP	S1134	53112034
1"	700506NP	S1101	53112044
Side entry			
3/4"	700524NP	S1134	53112034
1"	700526NP	S1101	53112044

NPT hood provided with NPT fitting

metric

Metric hood		SKINTOP® gland	
size	part number	plastic	metal
Top entry*			
M25	79050400	53111030	53112030
M32	79050600	53111040	53112040
Side entry			
M25	79052400	53111030	53112030
M32	79052600	53111040	53112040

* Metric hoods do not come with a neck

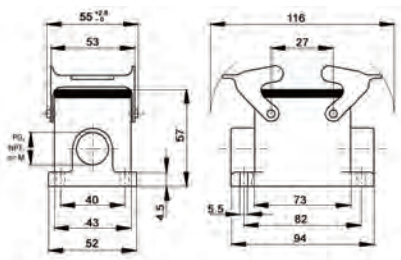
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EPIC® HB 10 standard surface mount base

Surface mount base with double levers



all dimensions are in mm

Technical data

IP Protection class: UL 50E Type 4, 12
IP65

Complete the installation



HB dust covers
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Approvals



PG

PG base		SKINTOP® gland	
size	part number	plastic	metal
One entry			
PG 16	100340	53015040	52015740
Two entries			
PG 16	100350	53015040	52015740

PG base provided with EPIC® SM/SP gland

NPT

NPT base		SKINTOP® gland	
size	part number	plastic	metal
One entry			
1/2"	100340NP	S 1112	53112024
Two entries			
1/2"	100350NP	S 1112	53112024

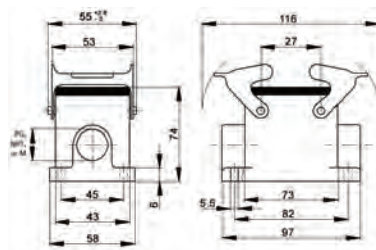
NPT base provided with NPT fitting

metric

Metric base		SKINTOP® gland	
size	part number	plastic	metal
One entry			
M20	19034000	53111020	53112020
M25	19034100	53111030	53112030
Two entries			
M20	19035000	53111020	53112020
M25	19035100	53111030	53112030

EPIC® HB 10 high profile surface mount base

Surface mount base with double levers



all dimensions are in mm

Technical data

IP Protection class: UL 50E Type 4, 12
IP65

Complete the installation



HB dust covers
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Approvals



PG

PG base		SKINTOP® gland	
size	part number	plastic	metal
One entry			
PG 21	700352	53015050	52015750
PG 29	700354	53015060	52015760
Two entries			
PG 21	700362	53015050	52015750
PG 29	700364	53015060	52015760

PG base provided with EPIC® SM/SP gland

NPT

NPT base		SKINTOP® gland	
size	part number	plastic	metal
One entry			
3/4"	700352NP	S 1134	53112034
1"	700354NP	S 1101	53112044
Two entries			
3/4"	700362NP	S 1134	53112034
1"	700364NP	S 1101	53112044

NPT base provided with NPT fitting

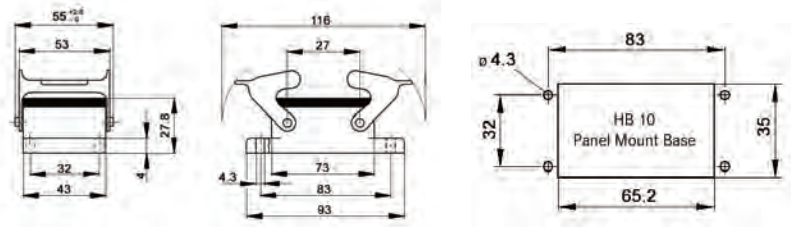
metric

Metric base		SKINTOP® gland	
size	part number	plastic	metal
One entry			
M21	79035200	53111030	53112030
M32	79035400	53111040	53112040
Two entries			
M21	79036200	53111030	53112030
M32	79036400	53111040	53112040

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EPIC® HB 10 panel mount base

Panel mount base with double levers



all dimensions are in mm

Technical data

IP Protection class: UL 50E Type 4, 12
IP65

Complete the installation



HB dust covers
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Approvals



Dust cover included	Part number
no	100320C0

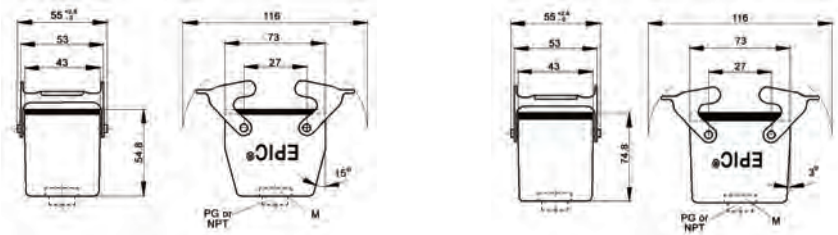
EPIC® HB 10 cable coupler hood

Cable coupler with double levers



standard profile

high profile



all dimensions are in mm

Technical data

IP Protection class: UL 50E Type 4, 12
IP65

Complete the installation



HB dust covers
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Approvals



PG

PG coupler		SKINTOP® gland	
size	part number	plastic	metal
Standard profile			
PG 16	100460	53015040	52015740
PG 21	700402	53015050	52015750
High profile			
PG 21	700404R	53015050	52015750
PG 29	700406	53015060	52015760

PG coupler provided with EPIC® SM/SP gland

NPT

NPT coupler		SKINTOP® gland	
size	part number	plastic	metal
Standard profile			
½"	100460NP	S1112	53112024
¾"	700402NP	S1134	53112034
High profile			
¾"	700404NP	S1134	53112034
1"	700406NP	S1101	53112044

NPT coupler provided with NPT fitting

metric

Metric coupler*		SKINTOP® gland	
size	part number	plastic	metal
Standard profile			
M20	19046000	53111020	53112030
M25	79040200	53111030	53112030
High profile			
M25	79040400	53111030	53112030
M32	79040600	53111040	53112040

* Metric couplers do not come with a neck

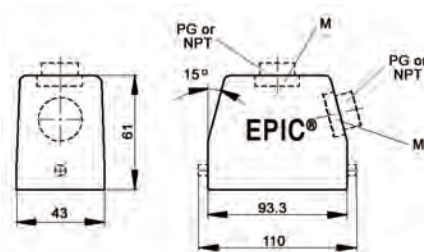
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EPIC® HB 16 standard hood

Single-entry hood with single lever bolts



all dimensions are in mm

Technical data

IP Protection class: UL 50E Type 12
NEMA 4
IP65

Complete the installation



HB dust covers
page 429

Approvals



PG

PG hood		SKINTOP® gland	
size	part number	plastic	metal
Top entry			
PG 21	100809	53015050	52015750
Side entry			
PG 21	100829	53015050	53015750
PG 21	100929	53015060	52015760

PG hood provided with EPIC® SM/SP gland

NPT

NPT hood		SKINTOP® gland	
size	part number	plastic	metal
Top entry			
¾"	100809NP	S1134	53112034
Side entry			
¾"	100829NP	S1134	53112034
1"	100929NP	S1101	53112044

NPT hood provided with NPT fitting

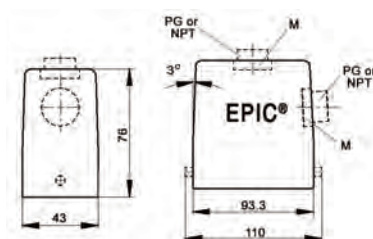
metric

Metric hood		SKINTOP® gland	
size	part number	plastic	metal
Top entry*			
M25	19080900	53111030	53112030
Side entry			
M25	19082900	53111030	53112030
M32	19092900	53111040	53112040

* Metric top-entry hoods do not come with a neck

EPIC® HB 16 high profile hood

Single-entry hood with single lever bolts



all dimensions are in mm

Technical data

IP Protection class: UL 50E Type 12
NEMA 4
IP65

Complete the installation



HB dust covers
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Approvals



PG

PG hood		SKINTOP® gland	
size	part number	plastic	metal
Top entry			
PG 21	700942	53015050	52015750
PG 29	700944	53015060	52015760
Side entry			
PG 21	701042	53015050	52015750
PG 29	701044	53015060	52015760

PG hood provided with EPIC® SM/SP gland

NPT

NPT hood		SKINTOP® gland	
size	part number	plastic	metal
Top entry			
¾"	700942NP	S1134	53112034
1"	700944NP	S1101	53112044
Side entry			
¾"	701042NP	S1134	53112034
1"	701044NP	S1101	53112044

NPT hood provided with NPT fitting

metric

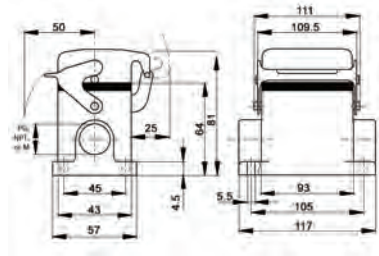
Metric hood		SKINTOP® gland	
size	part number	plastic	metal
Top entry*			
M25	79094200	53111030	53112030
M32	79094400	53111040	53112040
M40	79094600	53111050	53112050
Side entry			
M25	79104200	53111030	53112030
M32	79104400	53111040	53112040
M40	79104800	53111050	53112050

* Metric hoods do not come with a neck

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EPIC® HB 16 standard surface mount base

Surface mount base with single lever



all dimensions are in mm

Technical data

IP Protection class:	UL 50E Type 12 NEMA 4 IP65
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Complete the installation



HB dust covers
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Approvals



PG

PG base size	PG base part number	Dust cover	SKINTOP® gland plastic	SKINTOP® gland metal
One entry				
21	100749	no	53015050	52015750
21	100769	yes	53015050	52015750
Two entries				
21	100759	no	53015050	52015750
21	100789	yes	53015050	52015750

PG base provided with EPIC® SM/SP gland

NPT

NPT base size	NPT base part number	Dust cover	SKINTOP® gland plastic	SKINTOP® gland metal
One entry				
¾"	100749NP	no	S1134	53112034
¾"	100769NP	yes	S1134	53112034
Two entries				
¾"	100759NP	no	S1134	53112034
¾"	100789NP	yes	S1134	53112034

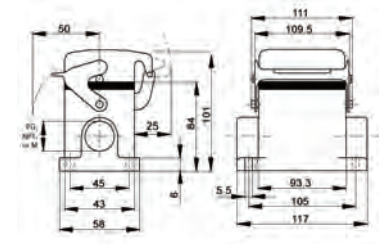
NPT base provided with NPT fitting

metric

Metric base size	Metric base part number	Dust cover	SKINTOP® gland plastic	SKINTOP® gland metal
One entry				
25	19074900	no	53111030	53112030
25	19076900	yes	53111030	53112030
Two entries				
25	19075900	no	53111030	53112030
25	19078900	yes	53111030	53112030

EPIC® HB 16 high profile surface mount base

Surface mount base with single lever



all dimensions are in mm

Technical data

IP Protection class:	UL 50E Type 12 NEMA 4 IP65
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Complete the installation



HB dust covers
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PG

PG base size	PG base part number	Dust cover	SKINTOP® gland plastic	SKINTOP® gland metal
One entry				
21	701102	no	53015050	52015750
21	701142	yes	53015050	52015750
29	701104	no	53015060	52015760
29	701144	yes	53015060	52015760
Two entries				
21	701112	no	53015050	52015750
21	701152	yes	53015050	52015750
29	701114	no	53015060	52015760
29	701154	yes	53015060	52015760

NPT

NPT base size	NPT base part number	Dust cover	SKINTOP® gland plastic	SKINTOP® gland metal
One entry				
¾"	701102NP	no	S1134	53112034
¾"	701142NP	yes	S1134	53112034
1"	701104NP	no	S1101	53112044
1"	701144NP	yes	S1101	53112044
Two entries				
¾"	701112NP	no	S1134	53112034
¾"	701152NP	yes	S1134	53112034
1"	701114NP	no	S1101	53112044
1"	701154NP	yes	S1101	53112044

NPT base provided with NPT fitting

metric

Metric base size	Metric base part number	Dust cover	SKINTOP® gland plastic	SKINTOP® gland metal
One entry				
25	79110200	no	53111030	53112030
25	79114200	yes	53111030	53112030
32	79110400	no	53111040	53112040
32	79114400	yes	53111040	53112040
Two entries				
25	79111200	no	53111030	53112030
25	79115200	yes	53111030	53112030
32	79111400	no	53111040	53112040
32	79115400	yes	53111040	53112040

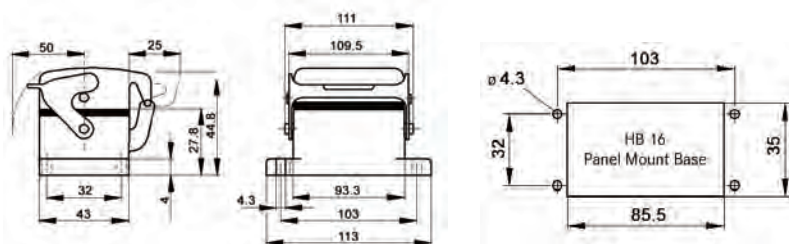
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EPIC® HB 16 panel mount base

Panel mount base with single lever



all dimensions are in mm

Technical data

IP Protection class: UL 50E Type 12
NEMA 4
IP65

Complete the installation



HB dust covers
page 429

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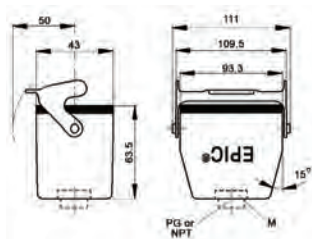
Dust cover included	Part number
no	10072900
yes	10073900

EPIC® HB 16 cable coupler hood

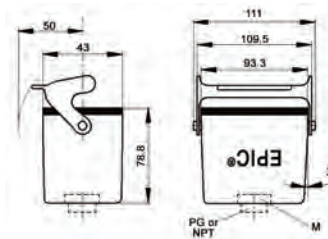
Cable coupler with single lever



standard profile



high profile



all dimensions are in mm

Technical data

IP Protection class: UL 50E Type 12
NEMA 4
IP65

Complete the installation



HB dust covers
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Approvals



PG

PG coupler size	part number	SKINTOP® gland plastic	SKINTOP® gland metal
Standard profile			
PG 21	100869	53015050	52015750
High profile			
PG 21	700922	53015050	52015750
PG 29	700924	53015060	52015760

PG coupler provided with EPIC® SM/SP gland

NPT

NPT coupler size	part number	SKINTOP® gland plastic	SKINTOP® gland metal
Standard profile			
3/4"	100869NP	S1134	53112034
High profile			
3/4"	700922NP	S1134	53112034
1"	700924NP	S1101	53112044

NPT coupler provided with NPT fitting

metric

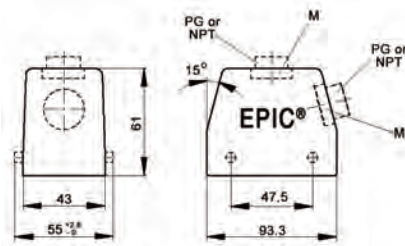
Metric coupler* size	part number	SKINTOP® gland plastic	SKINTOP® gland metal
Standard profile			
M25	19086900	53111030	53112030
High profile			
M25	79092200	53111030	53112030
M32	79092400	53111040	53112040

* Metric couplers do not come with a neck

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EPIC® HB 16 standard hood

Hood with double lever bolts



all dimensions are in mm



Technical data

IP Protection class: UL 50E Type 4, 12
IP65

Complete the installation



HB dust covers
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PG

PG hood		SKINTOP® gland	
size	part number	plastic	metal
Top entry			
PG 21	100800	53015050	52015750
PG 29	100900	53015060	52015760
Side entry			
PG 21	100820	53015050	52015750
PG 29	100920	53015060	52015760

PG hood provided with EPIC® SM/SP gland

NPT

NPT hood		SKINTOP® gland	
size	part number	plastic	metal
Top entry			
3/4"	100800NP	S1134	53112034
1"	100900NP	S1101	53112044
Side entry			
3/4"	100820NP	S1134	53112034
1"	100920NP	S1101	53112044

NPT hood provided with NPT fitting

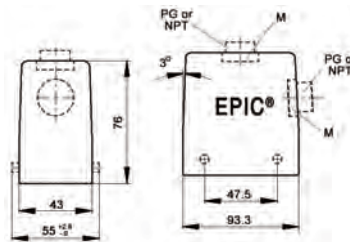
metric

Metric hood		SKINTOP® gland	
size	part number	plastic	metal
Top entry			
M25	19080000*	53111030	53112030
M25x2	19080500	53111030	53112030
M32	19090000*	53111040	53112040
Side entry			
M25	19082000	53111030	53112030
M32	19092000	53111040	53112040

* Metric top-entry hoods do not come with a neck

EPIC® HB 16 high profile hood

Hood with double lever bolts



all dimensions are in mm



Technical data

IP Protection class: UL 50E Type 4, 12
IP65

Complete the installation



HB dust covers
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PG

PG hood		SKINTOP® gland	
size	part number	plastic	metal
Top entry			
PG 21	701002	53015050	52015750
PG 29	701004R	53015060	52015760
Side entry			
PG 21	701022	53015050	52015750
PG 29	701024	53015060	52015760

PG hood provided with EPIC® SM/SP gland

NPT

NPT hood		SKINTOP® gland	
size	part number	plastic	metal
Top entry			
3/4"	701002NP	S1134	53112034
1"	701004NP	S1101	53112044
Side entry			
3/4"	701022NP	S1134	53112034
1"	701024NP	S1101	53112044

NPT hood provided with NPT fitting

metric

Metric hood*		SKINTOP® gland	
size	part number	plastic	metal
Top entry			
M25	79100200	53111030	53112030
M25x2	44422018	53111030	53112030
M32	79100400	53111040	53112040
M32x2	79128600	53111040	53112040
M40	79100800	53111050	53112050
Side entry			
M25	79102200	53111030	53112030
M32	79102400	53111040	53112040
M40	79102800	53111050	53112050

* Metric hoods do not come with a neck

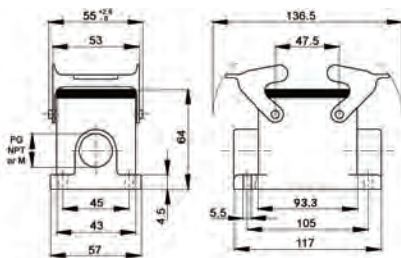
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EPIC® HB 16 standard surface mount base

Surface mount base with double levers



all dimensions are in mm

Technical data

IP Protection class: UL 50E Type 4, 12
IP65

Complete the installation



HB dust covers
page 429

Approvals



PG

PG base		SKINTOP® gland	
size	part number	plastic	metal
One entry			
PG 21	100740	53015050	52015750
Two entries			
PG 21	100750	53015050	52015750

PG base provided with EPIC® SM/SP gland

NPT

NPT base		SKINTOP® gland	
size	part number	plastic	metal
One entry			
3/4"	100740NP	S1134	53112034
Two entries			
3/4"	100750NP	S1134	53112034

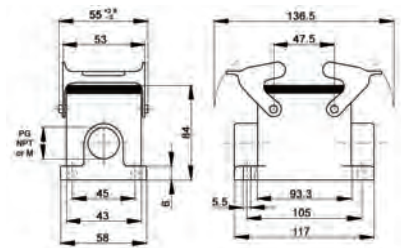
NPT base provided with NPT fitting

metric

Metric base		SKINTOP® gland	
size	part number	plastic	metal
One entry			
M25	19074000	53111030	53112030
Two entries			
M25	19075000	53111030	53112030

EPIC® HB 16 high profile surface mount base

Surface mount base with double levers



all dimensions are in mm

Technical data

IP Protection class: UL 50E Type 4, 12
IP65

Complete the installation



HB dust covers
page 429

Approvals



PG

PG base		SKINTOP® gland	
size	part number	plastic	metal
One entry			
PG 21	700852	53015050	52015750
PG 29	700854	53015060	52015760
Two entries			
PG 21	700862	53015050	52015750
PG 29	700864	53015060	52015760

PG base provided with EPIC® SM/SP gland

NPT

NPT base		SKINTOP® gland	
size	part number	plastic	metal
One entry			
3/4"	700852NP	S1134	53112034
1"	700854NP	S1101	53112044
Two entries			
3/4"	700862NP	S1134	53112034
1"	700864NP	S1101	53112044

NPT base provided with NPT fitting

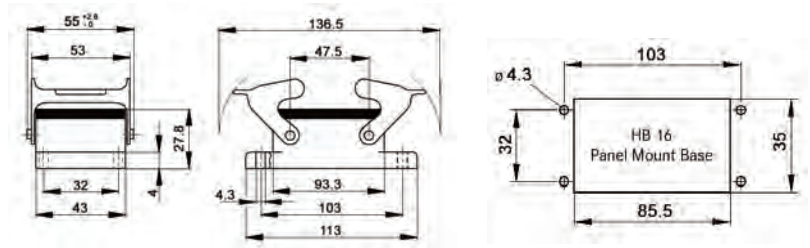
metric

Metric base		SKINTOP® gland	
size	part number	plastic	metal
One entry			
M25	79085200	53111030	53112030
M32	79085400	53111040	53112040
Two entries			
M25	79086200	53111030	53112030
M32	79086400	53111040	53112040

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EPIC® HB 16 panel mount base

Panel mount base with double levers



all dimensions are in mm

Technical data

IP Protection class: UL 50E Type 4, 12
IP65

Complete the installation



HB dust covers
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Approvals



Dust cover included	Part number
no	100720C0

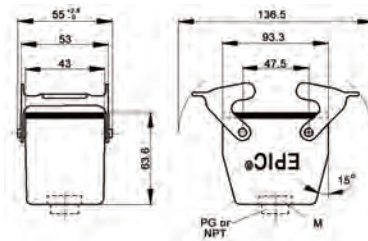
EPIC® HB 16 cable coupler hood

Cable coupler with double levers

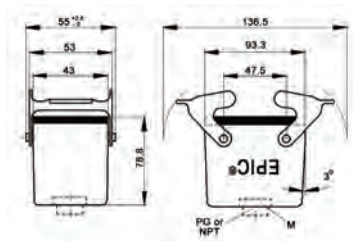


standard profile

high profile



all dimensions are in mm



Technical data

IP Protection class: UL 50E Type 4, 12
IP65

Complete the installation



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Approvals



PG

PG coupler size	part number	SKINTOP® gland plastic	SKINTOP® gland metal
Standard profile			
PG 21	100860	53015050	52015750
High profile			
PG 29	700904	53015060	52015760

PG coupler provided with EPIC® SM/SP gland

NPT

NPT coupler size	part number	SKINTOP® gland plastic	SKINTOP® gland metal
Standard profile			
3/4"	100860NP	S1134	53112034
High profile			
3/4"	700902NP	S1134	53112034
1"	700904NP	S1101	53112044

NPT coupler provided with NPT fitting

metric

Metric coupler* size	part number	SKINTOP® gland plastic	SKINTOP® gland metal
Standard profile			
M25	19086000	53111030	53112030
High profile			
M25	79090200	53111030	53112030
M32	79090400	53111040	53112040

* Metric couplers do not come with a neck

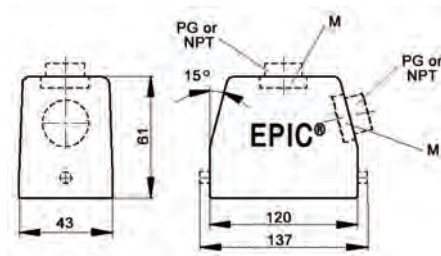
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EPIC® HB 24 standard hood

Hood with single lever bolts



all dimensions are in mm

Technical data

IP Protection class: UL 50E Type 12
NEMA 4
IP65

Complete the installation



HB dust covers
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Approvals



PG

PG hood		SKINTOP® gland	
size	part number	plastic	metal
Top entry			
PG 21	101219	53015050	52015750
PG 29	101119	53015060	52015760
Side entry			
PG 21	101139	53015050	52015750
PG 29	101239	53015060	52015760

PG hood provided with EPIC® SM/SP gland

NPT

NPT hood		SKINTOP® gland	
size	part number	plastic	metal
Top entry			
¾"	101219NP	S1134	53112034
1"	101119NP	S1101	53112044
Side entry			
¾"	101139NP	S1134	53112034
1"	101239NP	S1101	53112044

NPT hood provided with NPT fitting

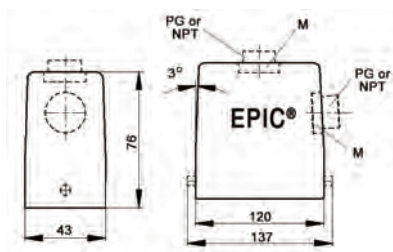
metric

Metric hood		SKINTOP® gland	
size	part number	plastic	metal
Top entry*			
M25	19121900	53111030	53112030
M32	19111900	53111040	53112040
Side entry			
M25	19113900	53111030	53112030
M32	19123900	53111040	53112040

* Metric top-entry hoods do not come with a neck

EPIC® HB 24 high profile hood

Hood with single lever bolts



all dimensions are in mm

Technical data

IP Protection class: UL 50E Type 12
NEMA 4
IP65

Complete the installation



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PG

PG hood		SKINTOP® gland	
size	part number	plastic	metal
Top entry			
PG 21	701444	53015050	52015750
PG 29	701446	53015060	52015760
Side entry			
PG 21	701544	53015050	52015750
PG 29	701546	53015060	52015760

PG hood provided with EPIC® SM/SP gland

NPT

NPT hood		SKINTOP® gland	
size	part number	plastic	metal
Top entry			
¾"	701444NP	S1134	53112034
1"	701446NP	S1101	53112044
Side entry			
¾"	701544NP	S1134	53112034
1"	701546NP	S1101	53112044

NPT hood provided with NPT fitting

metric

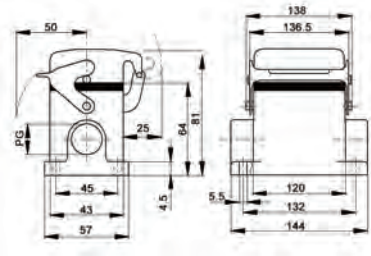
Metric hood		SKINTOP® gland	
size	part number	plastic	metal
Top entry*			
M25	79144400	53111030	53112030
M32	79144600	53111040	53112040
M40	79144800	53111050	53112050
Side entry			
M25	79154400	53111030	53112030
M32	79154600	53111040	53112040
M40	79154800	53111050	53112050

* Metric hoods do not come with a neck

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EPIC® HB 24 standard surface mount base

Surface mount base with single lever



all dimensions are in mm

Technical data

IP Protection class:	UL 50E Type 12 NEMA 4 IP65
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Complete the installation



HB dust covers
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Approvals



PG

PG base size	PG base part number	Dust cover	SKINTOP® gland plastic	SKINTOP® gland metal
One entry				
21	101049	no	53015050	52015750
21	101079	yes	53015050	52015750
Two entries				
21	101059	no	53015050	52015750
21	101099	yes	53015050	52015750

PG base provided with EPIC® SM/SP gland

NPT

NPT base size	NPT base part number	Dust cover	SKINTOP® gland plastic	SKINTOP® gland metal
One entry				
¾"	101049NP	no	S1134	53112034
¾"	101079NP	yes	S1134	53112034
Two entries				
¾"	101059NP	no	S1134	53112034
¾"	101099NP	yes	S1134	53112034

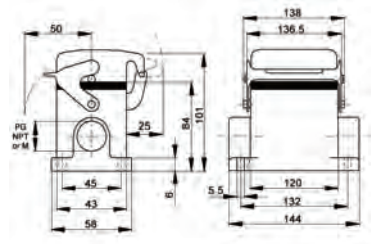
NPT base provided with NPT fitting

metric

Metric base size	Metric base part number	Dust cover	SKINTOP® gland plastic	SKINTOP® gland metal
One entry				
25	19104900	no	53111030	53112030
25	19107900	yes	53111030	53112030
Two entries				
25	19105900	no	53111030	53112030
25	19109900	yes	53111030	53112030

EPIC® HB 24 high profile surface mount base

Surface mount base with single lever



all dimensions are in mm

Technical data

IP Protection class:	UL 50E Type 12 NEMA 4 IP65
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Complete the installation



HB dust covers
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Approvals



PG

PG base size	PG base part number	Dust cover	SKINTOP® gland plastic	SKINTOP® gland metal
One entry				
21	701602	no	53015050	52015750
21	701642	yes	53015050	52015750
29	701604R	no	53015060	52015760
29	701644	yes	53015060	52015760
Two entries				
21	701112	no	53015050	52015750
21	701152	yes	53015050	52015750
29	701114	no	53015060	52015760
29	701154	yes	53015060	52015760

PG base provided with EPIC® SM/SP gland

NPT

NPT base size	NPT base part number	Dust cover	SKINTOP® gland plastic	SKINTOP® gland metal
One entry				
¾"	701602NP	no	S1134	53112034
¾"	701642NP	yes	S1134	53112034
1"	701604NP	no	S1101	53112044
1"	701644NP	yes	S1101	53112044
Two entries				
¾"	701612NP	no	S1134	53112034
¾"	701652NP	yes	S1134	53112034
1"	701614NP	no	S1101	53112044
1"	701654NP	yes	S1101	53112044

NPT base provided with NPT fitting

metric

Metric base size	Metric base part number	Dust cover	SKINTOP® gland plastic	SKINTOP® gland metal
One entry				
25	79160200	no	53111030	53112030
25	79164200	yes	53111030	53112030
32	79160400	no	53111040	53112040
32	79164400	yes	53111040	53112040
Two entries				
25	79161200	no	53111030	53112030
25	79165200	yes	53111030	53112030
32	79161400	no	53111030	53112030
32	79165400	yes	53111030	53112030

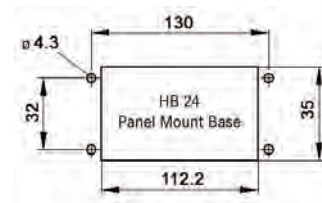
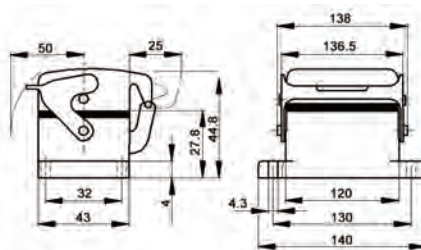
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EPIC® HB 24 panel mount base

Panel mount base with single lever



all dimensions are in mm

Technical data

IP Protection class: UL 50E Type 12
NEMA 4
IP65

Complete the installation



HB dust covers
page 429

Approvals



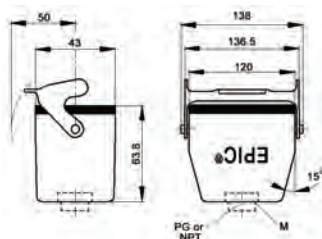
Dust cover included	Part number
no	10102900
yes	10103900

EPIC® HB 24 cable coupler hood

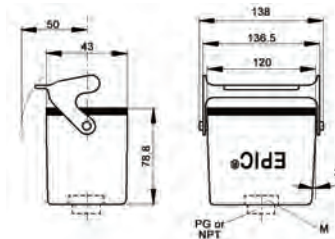
Cable coupler with single lever



standard profile



high profile



all dimensions are in mm

Technical data

IP Protection class: UL 50E Type 12
NEMA 4
IP65

Complete the installation



HB dust covers
page 429

Approvals



PG

PG coupler		SKINTOP® gland	
size	part number	plastic	metal
Standard profile			
PG 21	101279	53015050	52015750
PG 29	101179	53015060	52015760
High profile			
PG 21	701424	753015050	52015750
PG 29	701426	75015060	72015760

NPT

NPT coupler		SKINTOP® gland	
size	part number	plastic	metal
Standard profile			
¾"	101279NP	S 1134	53112034
1"	101179NP	S 1101	53112044
High profile			
¾"	701424NP	S 1134	53112034
1"	701426NP	S 1101	53112044

metric

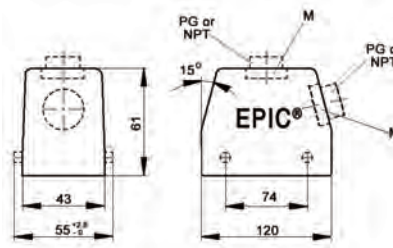
Metric coupler*		SKINTOP® gland	
size	part number	plastic	metal
Standard profile			
M25	19127900	53111030	53112030
M32	19117900	53111040	53112040
High profile			
M25	79142400	53111030	53112030
M32	79142600	53111040	53112040

* Metric couplers do not come with a neck

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EPIC® HB 24 standard hood

Hood with double lever bolts



all dimensions are in mm



Technical data

IP Protection class: UL 50E Type 4, 12
IP65

Complete the installation



HB dust covers
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Approvals



PG

PG hood		SKINTOP® gland	
size	part number	plastic	metal
Top entry			
PG 21	101210	53015050	52015750
PG 29	101110	53015060	52015760
Side entry			
PG 21	101130	53015050	52015750
PG 29	101230	53015060	52015760

PG hood provided with EPIC® SM/SP gland

NPT

NPT hood		SKINTOP® gland	
size	part number	plastic	metal
Top entry			
3/4"	101210NP	S1134	53112034
1"	101110NP	S1101	53112044
Side entry			
3/4"	101130NP	S1134	53112034
1"	101230NP	S1101	53112044

NPT hood provided with NPT fitting

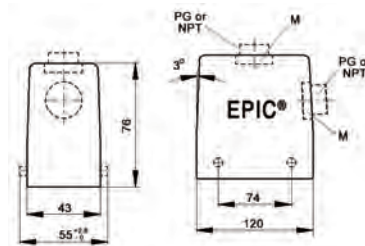
metric

Metric hood		SKINTOP® gland	
size	part number	plastic	metal
Top entry			
M25	19121000*	53111030	53112030
M25x2	44422019	53111030	53112030
M32	19111000*	53111040	53112040
M32x2	44422020	53111040	53112040
Side entry			
M25	19113000	53111030	53112030
M32	19123000	53111040	53112040

* Metric top-entry hoods do not come with a neck

EPIC® HB 24 high profile hood

Hood with double lever bolts



all dimensions are in mm



Technical data

IP Protection class: UL 50E Type 4, 12
IP65

Complete the installation



HB dust covers
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Approvals



PG

PG hood		SKINTOP® gland	
size	part number	plastic	metal
Top entry			
PG 21	701504	53015050	52015750
PG 29	701506	53015060	52015760
Side entry			
PG 21	701524	53015050	52015750
PG 29	701526	53015060	52015760

PG hood provided with EPIC® SM/SP gland

NPT

NPT hood		SKINTOP® gland	
size	part number	plastic	metal
Top entry			
3/4"	701504NP	S1134	53112034
1"	701506NP	S1101	53112044
Side entry			
3/4"	701524NP	S1134	53112034
1"	701526NP	S1101	53112044

NPT hood provided with NPT fitting

metric

Metric hood		SKINTOP® gland	
size	part number	plastic	metal
Top entry*			
M25	79150400	53111030	53112030
M25x2	44422021	53111030	53112030
M32	79150600	53111040	53112040
M32x2	79178500	53111040	53112040
M40	79150800	53111050	53112050
Side entry			
M25	79152400	53111030	53112030
M32	79152600	53111040	53112040
M40	79152800	53111050	53112050

* Metric hoods do not come with a neck

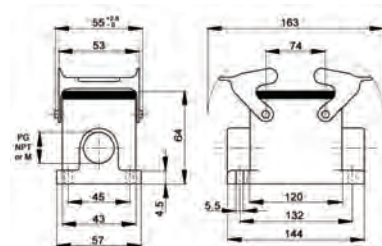
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EPIC® HB 24 standard surface mount base

Surface mount base with double levers



all dimensions are in mm

Technical data

IP Protection class: UL 50E Type 4, 12
IP65

Complete the installation



HB dust covers
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Approvals



PG

PG base		SKINTOP® gland	
size	part number	plastic	metal
One entry			
PG 21	101040	53015050	52015750
Two entries			
PG 21	101050	53015050	52015750

PG base provided with EPIC® SM/SP gland

NPT

NPT base		SKINTOP® gland	
size	part number	plastic	metal
One entry			
3/4"	101040NP	S1134	53112034
Two entries			
3/4"	101050NP	S1134	53112034

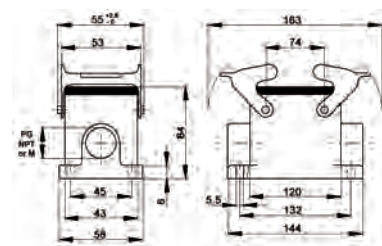
NPT base provided with NPT fitting

metric

Metric base		SKINTOP® gland	
size	part number	plastic	metal
One entry			
M25	19104000	53111030	53112030
Two entries			
M25	19105000	53111030	53112030

EPIC® HB 24 high profile surface mount base

Surface mount base with double levers



all dimensions are in mm

Technical data

IP Protection class: UL 50E Type 4, 12
IP65

Complete the installation



HB dust covers
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Approvals



PG

PG base		SKINTOP® gland	
size	part number	plastic	metal
One entry			
PG 29	701354	53015060	52015760
Two entries			
PG 21	701362	53015050	52015750
PG 29	701364	53015060	52015760

PG base provided with EPIC® SM/SP gland

NPT

NPT base		SKINTOP® gland	
size	part number	plastic	metal
One entry			
3/4"	701352NP	S1134	53112034
1"	701354NP	S1101	53112044
Two entries			
3/4"	701362NP	S1134	53112034
1"	701364NP	S1101	53112044

NPT base provided with NPT fitting

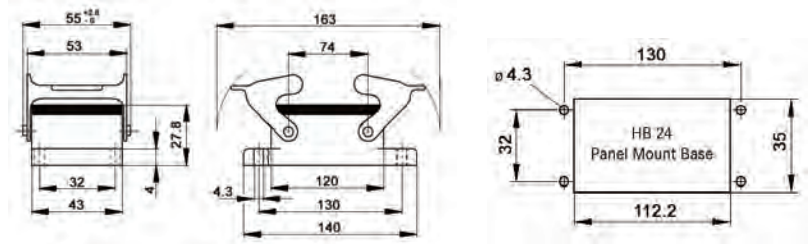
metric

Metric base		SKINTOP® gland	
size	part number	plastic	metal
One entry			
M25	79135200	53111030	53112030
M32	79135400	53111040	53112040
Two entries			
M25	79136200	53111030	53112030
M32	79136400	53111040	53112040

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EPIC® HB 24 panel mount base

Panel mount base with double levers



all dimensions are in mm

Technical data

IP Protection class: UL 50E Type 4, 12
IP65

Complete the installation



HB dust covers
page 429

Approvals



Dust cover included	Part number
no	101020C0

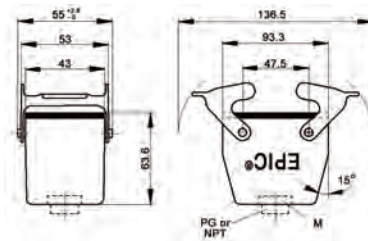
EPIC® HB 24 cable coupler hood

Cable coupler with double levers

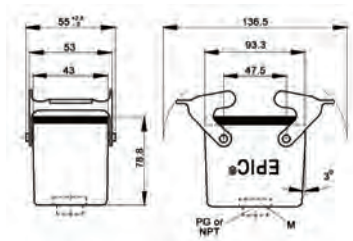


standard profile

high profile



all dimensions are in mm



Technical data

IP Protection class: UL 50E Type 4, 12
IP65

Complete the installation



HB dust covers
page 429

Approvals



PG

PG coupler		SKINTOP® gland	
size	part number	plastic	metal
Standard profile			
PG 21	101270	53015050	52015750
PG 29	101170	53015060	52015760
High profile			
PG 21	701404R	53015050	52015750

PG coupler provided with EPIC® SM/SP gland

NPT

NPT coupler		SKINTOP® gland	
size	part number	plastic	metal
Standard profile			
¾"	101270NP	S 1134	53112034
1"	101170NP	S 1101	53112044
High profile			
¾"	701404NP	S 1134	53112034
1"	701406NP	S 1101	53112044

NPT coupler provided with NPT fitting

metric

Metric coupler*		SKINTOP® gland	
size	part number	plastic	metal
Standard profile			
M25	19127000	53111030	53112030
M32	19117000	53111040	53112040
High profile			
M25	79140400	53111030	53112030
M32	79140600	53111040	53112040

* Metric couplers do not come with a neck

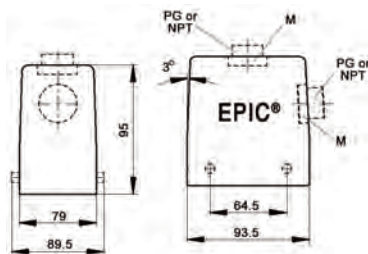
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EPIC® HB 32 standard hood

Hood with double lever bolts



all dimensions are in mm



Technical data

IP Protection class: NEMA 4, NEMA 12
IP65

Complete the installation



HB dust covers
page 429

Approvals



PG

PG hood		SKINTOP® gland	
size	part number	plastic	metal
Top entry			
PG 21	101330	53015050	52015750
PG 29	101340	53015060	52015760
Side entry			
PG 21	101350	53015050	52015750
PG 29	101360	53015060	52015760

PG hood provided with EPIC® SM/SP gland

NPT

NPT hood		SKINTOP® gland	
size	part number	plastic	metal
Top entry			
¾"	101330NP	S 1134	53112034
1"	101340NP	S 1101	53112044
1¼"	101343NP	—	53112054
Side entry			
¾"	101350NP	S 1134	53112034
1"	101360NP	S 1101	53112044

NPT hood provided with NPT fitting

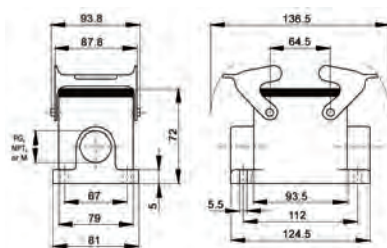
metric

Metric hood		SKINTOP® gland	
size	part number	plastic	metal
Top entry*			
M25x2	44422022	53111030	53112030
M32	19134000	53111040	53112040
M32x2	44422023	53111040	53112040
M40	19134400	53111050	53112050
Side entry			
M25	19135000	53111030	53112030
M32	19136000	53111040	53112040
M40	19136200	53111050	53112050

* Metric top-entry hoods do not come with a neck

EPIC® HB 32 surface mount base

Surface mount base with double levers



all dimensions are in mm

Technical data

IP Protection class: NEMA 4, NEMA 12
IP65

Complete the installation



HB dust covers
page 429

Approvals



PG

PG base		SKINTOP® gland	
size	part number	plastic	metal
One entry			
PG 29	101370	53015060	52015760
Two entries			
PG 29	101380	53015060	52015760

PG base provided with EPIC® SM/SP gland

NPT

NPT base		SKINTOP® gland	
size	part number	plastic	metal
One entry			
1"	101370NP	S 1101	53112044
Two entries			
1"	101380NP	S 1101	53112044

NPT base provided with NPT fitting

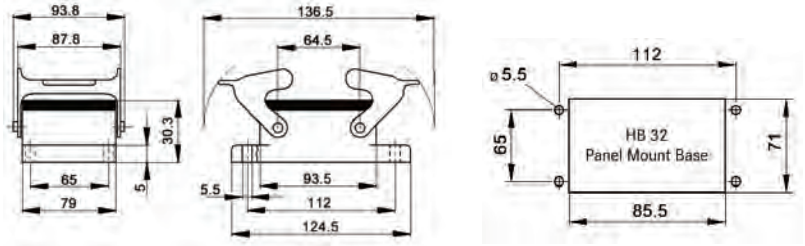
metric

Metric base		SKINTOP® gland	
size	part number	plastic	metal
One entry			
M32	19137000	53111040	53112040
M40	19145400	53111050	53112050
Two entries			
M32	19138000	53111040	53112040
M40	19146400	53111050	53112050

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EPIC® HB 32 panel mount base

Panel mount base with double levers



all dimensions are in mm

Technical data

IP Protection class: NEMA 4, NEMA 12
IP65

Complete the installation



HB dust covers
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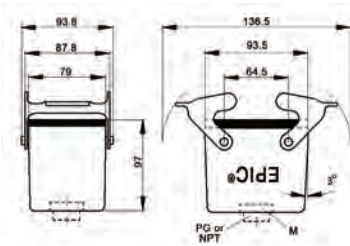
Approvals



Dust cover included	Part number
no	101320C0

EPIC® HB 32 cable coupler hood

Cable coupler with double levers



all dimensions are in mm

Technical data

IP Protection class: NEMA 4, NEMA 12
IP65

Complete the installation



HB dust covers
page 429

Approvals



PG

PG coupler		SKINTOP® gland	
size	part number	plastic	metal
PG 21	101390	53015050	52015750
PG 29	101395	53015060	52015760

PG coupler provided with EPIC® SM/SP gland

NPT

NPT coupler		SKINTOP® gland	
size	part number	plastic	metal
3/4"	101390NP	S1134	53112034
1"	101395NP	S1101	53112044

NPT coupler provided with NPT fitting

metric

Metric coupler		SKINTOP® gland	
size	part number	plastic	metal
M32	19139500	53111040	53112040

Metric couplers do not come with a neck

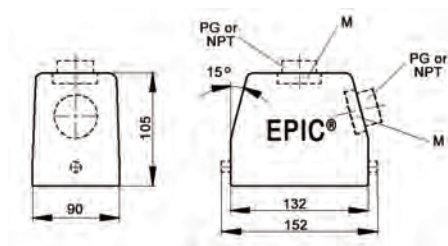
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EPIC® HB 48 standard hood

Hood with single lever bolts



all dimensions are in mm

Technical data

IP Protection class: NEMA 4, NEMA 12
IP65

Complete the installation



HB dust covers
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PG

PG hood		SKINTOP® gland	
size	part number	plastic	metal
Top entry			
PG 29	101550	53015060	52015760
PG 36	101560	53015070	52015765
PG 42	101570	53015080	52015766
Side entry			
PG 29	101580	53015060	52015760
PG 36	101590	53015070	52015765
PG 42	101600	53015080	52015766

NPT

NPT hood		SKINTOP® gland	
size	part number	plastic	metal
Top entry			
1"	101550NP	S1101	53112044
1 1/4"	101560NP	—	53112054
Side entry			
1"	101580NP	S1101	53112044
1 1/4"	101590NP	—	53112054

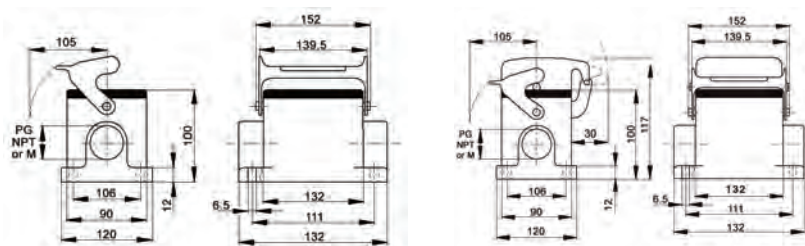
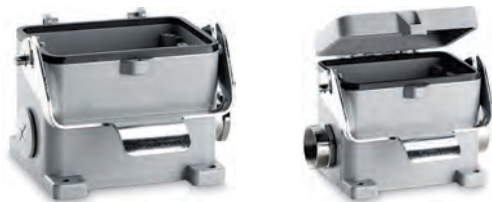
metric

Metric hood*		SKINTOP® gland	
size	part number	plastic	metal
Top entry			
M32	19155000	53111040	53112040
M40	19156000	53111050	53112050
M50	19157000	53111060	53112060
Side entry			
M32	19158000	53111040	53112040
M40	19159000	53111050	53112050
M50	19160000	53111060	53112060

* Metric hoods do not come with a neck

EPIC® HB 48 surface mount base

Surface mount base with single lever



all dimensions are in mm

Technical data

IP Protection class: NEMA 4, NEMA 12
IP65

Complete the installation



HB dust covers
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Approvals



PG

PG base		Dust cover	SKINTOP® gland	
size	part number		plastic	metal
One entry				
29	101650	no	53015060	52015760
29	101670	yes	53015060	52015760
36	101651	no	53015070	52015765
36	101671	yes	53015070	52015765
Two entries				
29	101660	no	53015060	52015760
29	101680	yes	53015060	52015760
36	101661	no	53015070	52015765
36	101681	yes	53015070	52015765

PG base provided with EPIC® SM/SP gland

NPT

NPT base		Dust cover	SKINTOP® gland	
size	part number		plastic	metal
One entry				
1"	101650NP	no	S1101	53112044
1"	101670NP	yes	S1101	53112044
1¼"	101651NP	no	—	53112054
1¼"	101671NP	yes	—	53112054
Two entries				
1"	101660NP	no	S1101	53112044
1"	101680NP	yes	S1101	53112044
1¼"	101661NP	no	—	53112054
1¼"	101681NP	yes	—	53112054

NPT base provided with NPT fitting

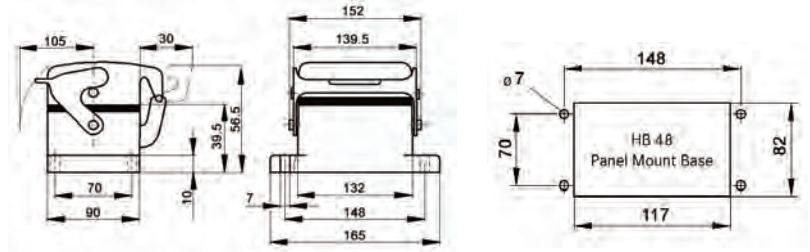
metric

Metric base		Dust cover	SKINTOP® gland	
size	part number		plastic	metal
One entry				
32	19165000	no	53111040	53112040
32	19167000	yes	53111040	53112040
40	19165100	no	53111050	53112050
40	19167100	yes	53111050	53112050
Two entries				
32	19166000	no	53111040	53112040
32	19168000	yes	53111040	53112040
40	19166100	no	53111050	53112050
40	19168100	yes	53111050	53112050

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EPIC® HB 48 panel mount base

Panel mount base with single lever



all dimensions are in mm

Technical data

IP Protection class: NEMA 4, NEMA 12
IP65

Complete the installation



HB dust covers
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Approvals



Dust cover included	Hardware	Part number
no	—	10161000
yes	dust cover bolts	10152500
yes	dust cover hold screw	10152000

EPIC® ULTRA series



EPIC® ULTRA HB housings have a hard, electrically conductive, and corrosion-resistant nickel finish. Latching levers and bolts are stainless steel for strength and corrosion resistance. An integrated SKINTOP® gland in the hoods and surface mount bases provides a self-centering radial seal and strain relief. For electrically noisy environments where shielded cable is used, a SKINTOP® BRUSH insert provides a 360° low-resistance contact area with the cable shield. This configuration forms a conductive shell around the wire terminations that virtually eliminates electrical interference.

ULTRA housing	EPIC® insert series											
	HBE	HA	HQ	STA	HEE	HBS	HBVE	HD	HDD	MH	MC	Power K
HA 3/4	—	HA 3, HA 4	HQ 5, HQ 12	STA 6	—	—	—	HD 7, HD 8	—	—	—	—
HB 6	HBE 6	—	—	—	HEE 10	—	—	—	HDD 24	MH 6	MC 2	—
HB 10	HBE 10	—	—	—	HEE 18	—	HBVE 3	—	HDD 42	MH 10	MC 3	—
HB 16	HBE 16	—	—	—	HEE 32	HBS 6	HBVE 6	HD 40	HDD 72	MH 16	MC 5	4/0, 4/2
HB 24	HBE 24	—	—	—	HEE 46	—	HBVE 10	HD 64	HDD 108	MH 24	MC 7	4/8

Technical data



Specifications:

DIN EN 60529
DIN EN 6988



Protection class:

UL 50E Type 4, 4X, 12
IP65



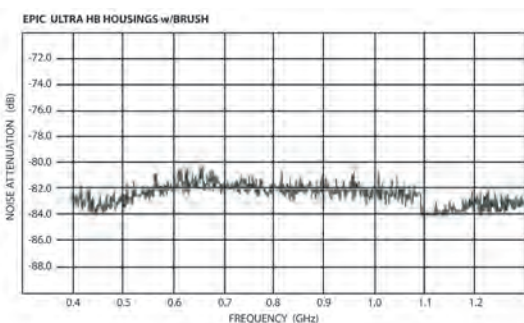
Temperature range:

-40°C to +100°C



Material:

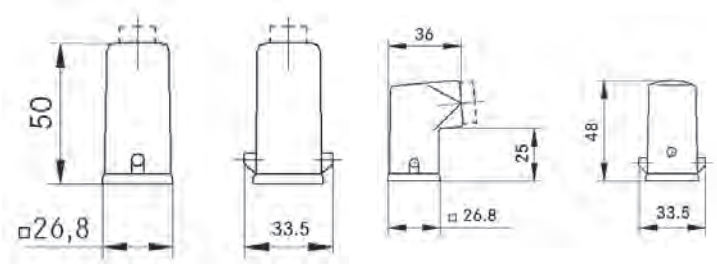
- housing: nickel-plated die-cast zinc
- lever & bolts: stainless steel
- sealing: NBR
- gland cap nut: nickel-plated brass
- gland insert: PA thermoplastic
- gland seal: special chloroprene elastomer



EPIC® ULTRA HA 3/4 hood

Hood with single lever bolts

NEW



all dimensions are in mm

Technical data

IP Protection class:	UL 50E Type 4, 4X, 12 IP65
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Approvals



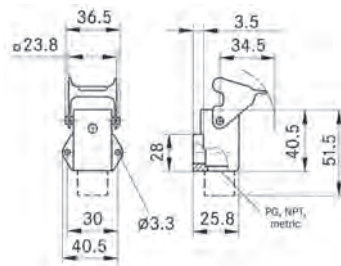
metric

Size	Part number		SKINTOP® MS-M
	top entry	side entry	
M20	10423300	10423201	53112020

EPIC® ULTRA HA 3/4 surface mount base

Surface mount with single lever

NEW



all dimensions are in mm

Technical data

IP Protection class:	UL 50E Type 4, 4X, 12 IP65
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Approvals



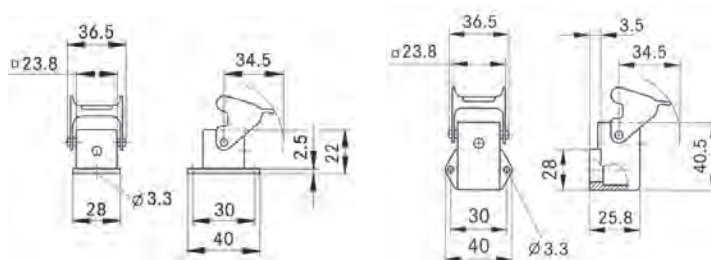
metric

Size	Part number
M20	10423203

EPIC® ULTRA HA 3/4 panel mount base

Panel mount base with single lever

NEW



all dimensions are in mm

Technical data

IP Protection class: UL 50E Type 4, 4X, 12
IP65

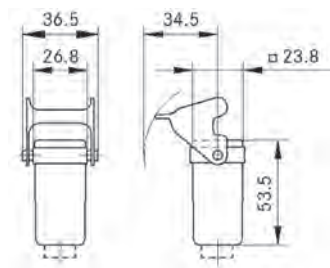
Approvals

Description	Part number
standard	10423200
right angle	10423202

EPIC® HA 3/4 cable coupler hood

Cable coupler with single lever

NEW



all dimensions are in mm

Technical data

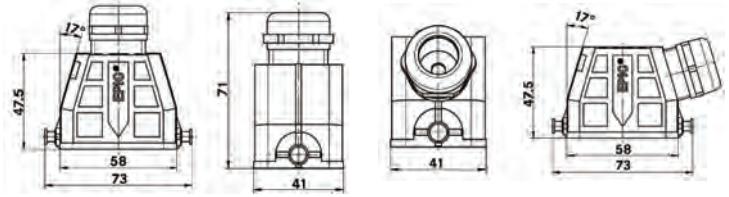
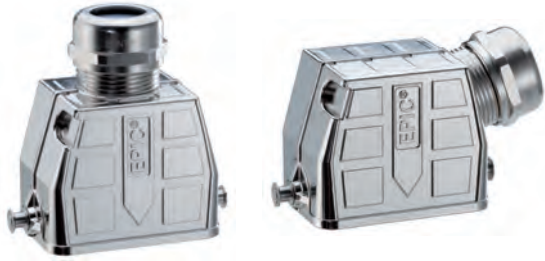
IP Protection class: UL 50E Type 4, 4X, 12
IP65

Approvals**metric**

Size	Part number	SKINTOP® MS-M
M20	10423204	53112020

EPIC® ULTRA HB 6 hood

Hood with single lever bolts



all dimensions are in mm

Technical data

IP Protection class: UL 50E Type 4, 4X, 12
IP65

Complete the installation



ULTRA HB
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Approvals

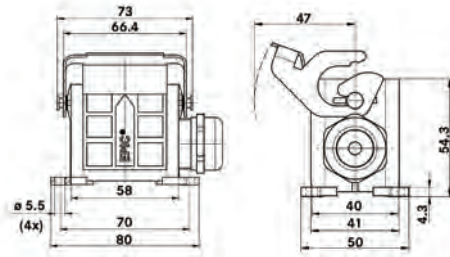


Part number	Brush included	Cable OD mm	Min. OD for braided shield mm
Top entry			
70250200	no	6 - 13	—
70250201	no	9 - 17	—
70250202	yes	9 - 17	6
Side entry			
70250203	no	6 - 13	—
70250204	no	9 - 17	—
70250205	yes	9 - 17	6

not for use with inserts
requiring high profile housing

EPIC® ULTRA HB 6 surface mount base

Surface mount base with single lever



all dimensions are in mm

Technical data

IP Protection class: UL 50E Type 4, 4X, 12
IP65

Complete the installation



ULTRA HB
covers
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Approvals

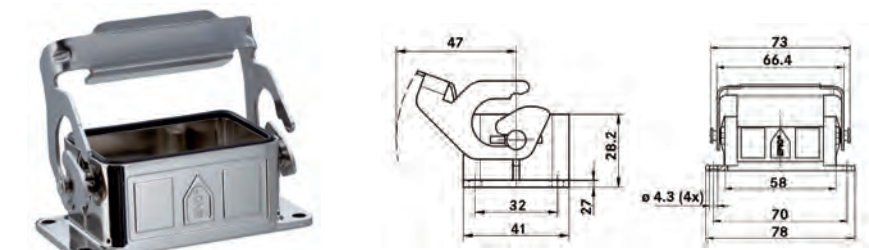


Part number	Brush included	Cable OD mm	Min. OD for braided shield mm
70250207	no	6 - 13	—
70250208	no	9 - 17	—
70250209	yes	9 - 17	6

not for use with inserts
requiring high profile housing

EPIC® ULTRA HB 6 panel mount base

Panel mount base with single lever



all dimensions are in mm

Technical data

IP Protection class: UL 50E Type 4, 4X, 12
IP65

Complete the installation



ULTRA HB
covers
page 429

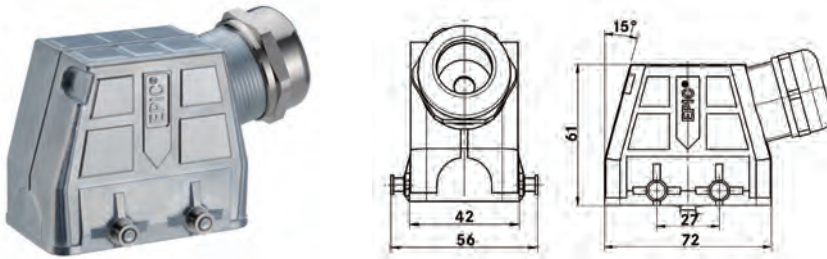
Approvals



Dust cover included	Part number
no	70250206

EPIC® ULTRA HB 10 hood

Hood with double lever bolts



all dimensions are in mm

Technical data

IP Protection class:	UL 50E Type 4, 4X, 12 IP65
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Complete the installation

	ULTRA HB covers page 429
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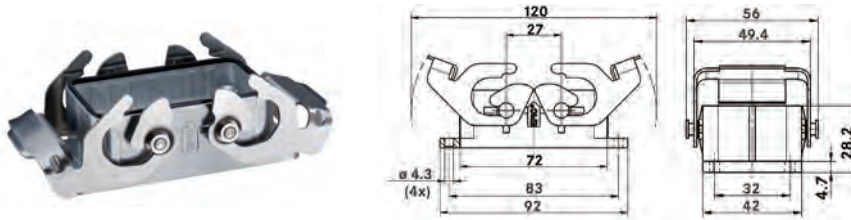
Approvals



Part number	Brush included	Cable OD mm	Min. OD for braided shield mm
Side entry			
70250210	no	6 - 13	—
70250211	no	9 - 17	—
70250212	yes	9 - 17	6

EPIC® ULTRA HB 10 panel mount base

Panel mount base with double levers



all dimensions are in mm

Technical data

IP Protection class:	UL 50E Type 4, 4X, 12 IP65
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Complete the installation

	ULTRA HB covers page 429
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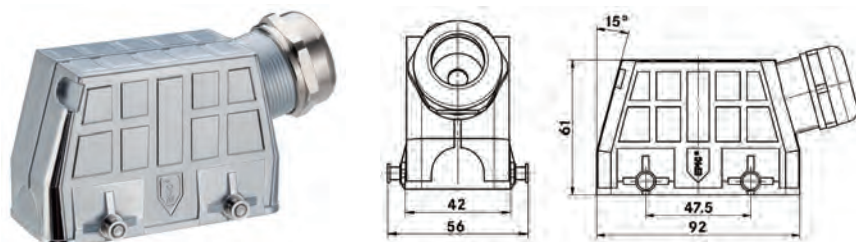
Approvals



Dust cover included	Part number
no	70250213

EPIC® ULTRA HB 16 hood

Hood with double lever bolts



all dimensions are in mm

Technical data

IP Protection class: UL 50E Type 4, 4X, 12
IP65

Complete the installation

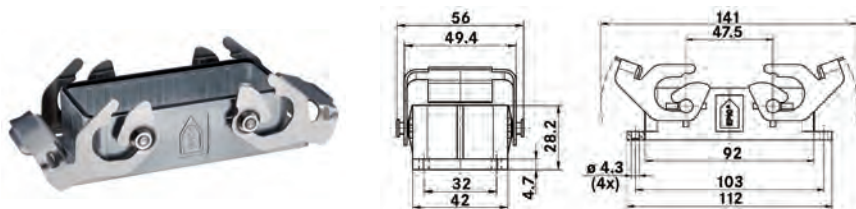
ULTRA HB
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Approvals

Part number	Brush included	Cable OD mm	Min. OD for braided shield mm
Side entry			
70250214	no	7 - 15	—
70250215	no	11 - 21	—
70250216	yes	11 - 21	8

EPIC® ULTRA HB 16 panel mount base

Panel mount base with double levers



all dimensions are in mm

Technical data

IP Protection class: UL 50E Type 4, 4X, 12
IP65

Complete the installation

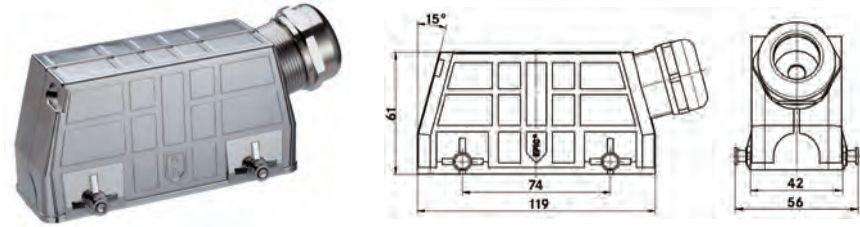
ULTRA HB
covers
page 429

Approvals

Dust cover included	Part number
no	70250217

EPIC® ULTRA HB 24 hood

Hood with double lever bolts



all dimensions are in mm

Technical data

IP Protection class: UL 50E Type 12
IP65

Complete the installation



ULTRA HB
covers
page 429

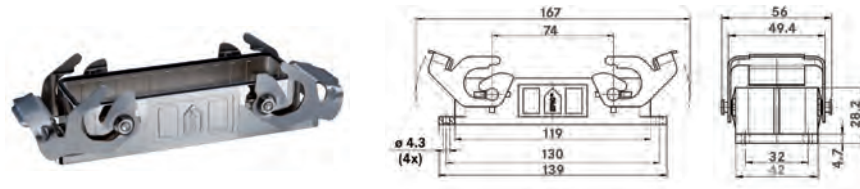
Approvals



Part number	Brush included	Cable OD mm	Min. OD for braided shield mm
Side entry			
70250219	no	7 - 15	—
70250220	no	11 - 21	—
70250221	yes	11 - 21	8

EPIC® ULTRA HB 24 panel mount base

Panel mount base with double levers



all dimensions are in mm

Technical data

IP Protection class: UL 50E Type 12
IP65

Complete the installation



ULTRA HB
covers
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Approvals



Dust cover included	Part number
no	70250222

EPIC® HA series



EPIC® HA rectangular connectors comply with all applicable requirements of Underwriters Laboratory (UL) Standards 1977 and 498, VDE Standard 0110 for creepage and clearance distances, and VDE Standard 0627 for the connector design.

The recognized UL file number and Canadian Standards Association (CSA) for EPIC® connectors are UL #E75770 and CSA #LR53004-1.

EPIC® connectors meet IP65, UL 50E, and NEMA standards only when in the mated condition.

HA housing	EPIC® insert series			
	HA	HQ	STA	HD
HA 3/4	HA 3, HA 4	HQ 5, HQ 12	STA 6	HD 7, HD 8
HA 10	HA 10	—	STA 14	HD 15
HA 16	HA 16	—	STA 20	HD 25
HA 32	HA 32	—	STA 40	HD 50
HA 48	HA 48	—	—	—
HA 64	HA 64	—	—	—

Technical data


Specifications:

- metric housing:

DIN 43652

DIN 50262


Protection class:

UL 50E Type 4, 12
IP65


Temperature range:

-40°C to +125°C


Material:

- EPIC® HA 3/4:

- metal:

- plastic:

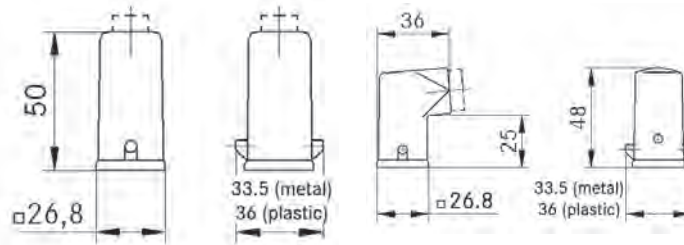
powder-coated die-cast zinc
thermoplastic flame-retardant
material rated UL 94 V-0

- EPIC® HA 10-64:

powder-coated aluminum alloy
with zinc-plated steel locking levers
and bolts

EPIC® HA 3/4 hood

Hood with single lever bolts



all dimensions are in mm

Complete the installation

HA dust covers
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gland kits
page 426

Technical data

IP Protection class: UL 50E Type 4, 12
IP65

Approvals



PG

Size	Material	Part number	
		with gland	without gland
Top entry			
PG 11	die-cast zinc	10426500	10512100
PG 11	black plastic	10426700	10425500
PG 11	gray plastic	10426400	10426000
Side entry			
PG 11	die-cast zinc	10427500	10512300
PG 11	black plastic	10620600	10427300
PG 11	gray plastic	10427100	10427000

NPT

Size	Material	Part number
		without gland
Top entry		
1/2"	die-cast zinc	105121NP
1/2"	black plastic	104255NP
1/2"	gray plastic	104260NP
Side entry		
1/2"	die-cast zinc	105123NP
1/2"	black plastic	104273NP
1/2"	gray plastic	104270NP

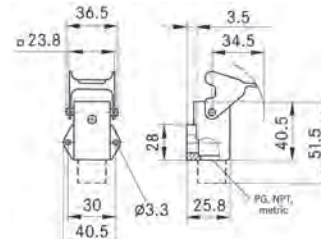
NPT hood provided with NPT fitting

metric

Size	Material	Part number	
		with gland	without gland
Top entry			
M20	die-cast zinc	19426500	19512100
M20	black plastic	—	19425500
M20	gray plastic	—	19426000
Side entry			
M20	die-cast zinc	19427500	19512300
M20	black plastic	—	19427300
M20	gray plastic	—	19427000

EPIC® HA 3/4 surface mount base

Surface mount base with single lever



all dimensions are in mm

Complete the installation

HA dust covers
page 429Replacement
gland kits
page 426

Technical data

IP Protection class: UL 50E Type 4, 12
IP65

Approvals



PG

Size	Material	Part number	
		with gland	without gland
PG 11	die-cast zinc	10424500	10512700
PG 11	gray plastic	10424200	10424000

NPT

Size	Material	Part number
		without gland
1/2"	die-cast zinc	105127NP
1/2"	gray plastic	104240NP

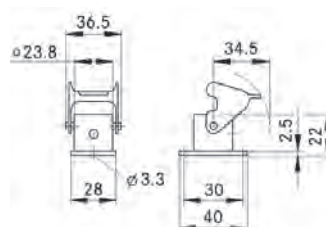
NPT base provided with NPT fitting

metric

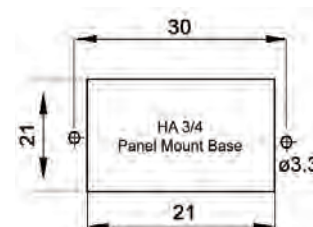
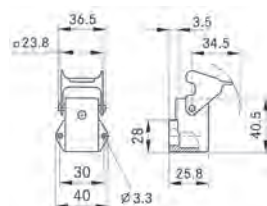
Size	Material	Part number	
		with gland	without gland
M20	die-cast zinc	19424500	19512700
M20	gray plastic	19421900	—

EPIC® HA 3/4 panel mount base

Panel mount base with single lever



all dimensions are in mm



Technical data

IP Protection class: UL 50E Type 4, 12
IP65

Complete the installation



HA dust covers
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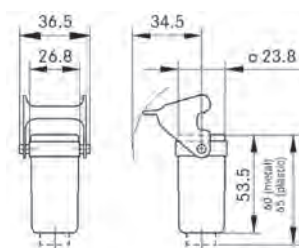
Approvals



Description	Dust cover included	die-cast zinc	Part number black plastic	gray plastic
standard base	no	10422500	10422200	10422000
standard base	yes	44429015	—	—
right-angle base	no	10423500	10423100	10423000

EPIC® HA 3/4 cable coupler hood

Cable coupler with single lever



all dimensions are in mm

Complete the installation



HA dust covers
page 429



Replacement
gland kits
page 426

Technical data

IP Protection class: UL 50E Type 4, 12
IP65

Approvals



PG

Size	Material	Part number with gland	without gland
PG 11	die-cast zinc	10429500	10512900
PG 11	black plastic	10620300	10429200
PG 11	gray plastic	10429100	10429000

NPT

Size	Material	Part number without gland
1/2"	die-cast zinc	105129NP
1/2"	black plastic	104292NP
1/2"	gray plastic	104290NP

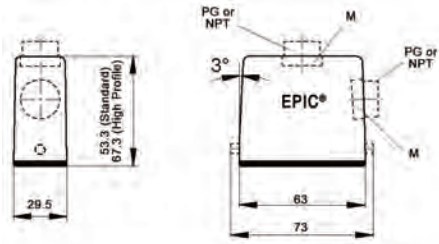
NPT coupler provided with NPT fitting

metric

Size	Material	Part number without gland
M20	die-cast zinc	19512900
M20	black plastic	19429200
M20	gray plastic	19429000

EPIC® HA 10 standard & high profile hood

Hood with single lever bolts



all dimensions are in mm

Technical data

IP Protection class: UL 50E Type 4, 12
IP65

Complete the installation



HA dust covers
page 429

Approvals



PG

PG hood		Profile	SKINTOP® gland	
size	part number		plastic	metal
Top entry				
13	104460	std	53015030	52015730
16	104461	std	53015040	52015740
16	704602	high	53015040	52015740
21	704604	high	53015040	52015740
Side entry				
16	104450	std	53015040	52015740
16	704622	high	53015040	52015740
21	104455	std	53015050	52015750
21	704624	high	53015050	52015750

PG hood provided with EPIC® SM/SP gland

NPT

NPT hood		Profile	SKINTOP® gland	
size	part number		plastic	metal
Top entry				
1/2"	104460NP	std	S 1112	53112024
1/2"	704602NP	high	S 1112	53112024
3/4"	104461NP	std	S 1134	53112034
3/4"	704604NP	high	S 1134	53112034
Side entry				
1/2"	104450NP	std	S 1112	53112024
1/2"	704622NP	high	S 1112	53112024
3/4"	104455NP	std	S 1134	53112034
3/4"	704624NP	high	S 1134	53112034

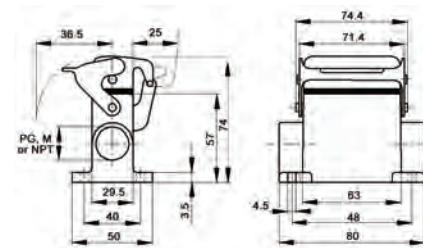
metric

Metric hood*		Profile	SKINTOP® gland	
size	part number		plastic	metal
Top entry				
20	19446000	std	53111020	53112020
20	79460200	high	53111020	53112020
25	19446100	std	53111030	53112030
25	79460400	high	53111030	53112030
Side entry				
20	19445000	std	53111020	53112020
20	79462200	high	53111020	53112020
25	19445500	std	53111030	53112030
25	79462400	high	53111030	53112030

* Top-entry and high profile hoods do not come with a neck

EPIC® HA 10 surface mount base

Surface mount base with single lever



all dimensions are in mm

Technical data

IP Protection class: UL 50E Type 4, 12
IP65

Complete the installation



HA dust covers
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Approvals



PG

PG base		Dust cover	SKINTOP® gland	
size	part number		plastic	metal
One entry				
16	104481	no	53015040	52015740
16	704552	yes	53015040	52015740
21	104480	no	53015050	52015750
21	704554	yes	53015050	52015750
Two entries				
16	104501	no	53015040	52015740
16	704562	yes	53015040	52015740
21	104500	no	53015050	52015750
21	704564	yes	53015050	52015750

PG base provided with EPIC® SM/SP gland

NPT

NPT base		Dust cover	SKINTOP® gland	
size	part number		plastic	metal
One entry				
1/2"	104481NP	no	S 1112	53112024
1/2"	704552NP	yes	S 1112	53112024
3/4"	104480NP	no	S 1134	53112034
3/4"	704554NP	yes	S 1134	53112034
Two entries				
1/2"	104501NP	no	S 1112	53112024
1/2"	704562NP	yes	S 1112	53112024
3/4"	104500NP	no	S 1134	53112034
3/4"	704564NP	yes	S 1134	53112034

NPT base provided with NPT fitting

metric

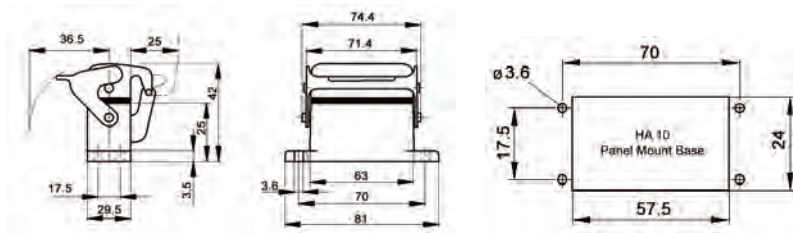
Metric base		Dust cover	SKINTOP® gland	
size	part number		plastic	metal
One entry				
20	19448100	no	53111020	53112020
20	79455200	yes	53111020	53112020
25	19448000	no	53111030	53112030
25	79455400	yes	53111030	53112030
Two entries				
20	19450100	no	53111020	53112020
20	79456200	yes	53111020	53112020
25	19450000	no	53111030	53112030
25	79456400	yes	53111030	53112030

If not otherwise specified, all values relating to the product are nominal values.
Photographs are not to scale and are not true representations of the products in question.

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EPIC® HA 10 panel mount base

Panel mount base with single lever



all dimensions are in mm

Technical data

IP Protection class: UL 50E Type 4, 12
IP65

Complete the installation



HA dust covers
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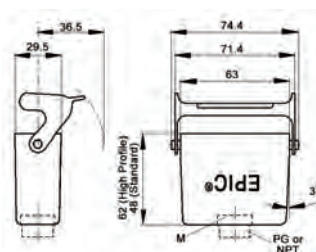
Approvals



Dust cover included	Part number
no	104420C0
yes	704440C0

EPIC® HA 10 cable coupler hood

Standard & high profile cable coupler with single lever



all dimensions are in mm

Technical data

IP Protection class: UL 50E Type 4, 12
IP65

Complete the installation



HA dust covers
page 429

Approvals



PG

PG coupler		SKINTOP® gland	
size	part number	plastic	metal
Standard profile			
PG 13	104390	53015030	52015700
PG 16	704500	53015040	52015740
High profile			
PG 21	704504	53015050	52015750

PG coupler provided with EPIC® SM/SP gland

NPT

NPT coupler		SKINTOP® gland	
size	part number	plastic	metal
Standard profile			
1/2"	104390NP	S 1112	53112024
1/2"	704500NP	S 1112	53112024
High profile			
3/4"	704504NP	S 1134	53112034

NPT coupler provided with NPT fitting

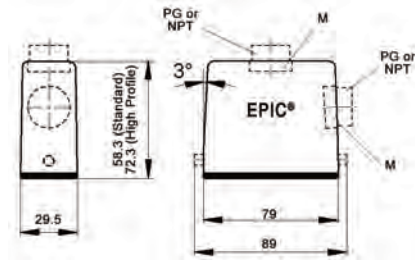
metric

Metric coupler*		SKINTOP® gland	
size	part number	plastic	metal
Standard profile			
M20	19439000	53111020	53112020
M25	79450000	53111030	53112030
High profile			
M25	79450400	53111030	53112030

* Metric couplers do not come with a neck

EPIC® HA 16 standard & high profile hood

Hood with single lever bolts



all dimensions are in mm

Technical data

IP Protection class: UL 50E Type 4, 12
IP65

Complete the installation



HA dust covers
page 429

Approvals



PG

PG hood		Profile	SKINTOP® gland	
size	part number		plastic	metal
Top entry				
16	105650	std	53015040	52015740
16	704902	high	53015040	52015740
21	10565200	std	53015050	52015750
21	704904	high	53015050	52015750
Side entry				
16	105640	std	53015040	52015740
16	704922	high	53015040	52015740
21	105645	std	53015050	52015750
21	704924	high	53015050	52015750

PG hood provided with EPIC® SM/SP gland

NPT

NPT hood		Profile	SKINTOP® gland	
size	part number		plastic	metal
Top entry				
1/2"	105650NP	std	S1112	53112024
1/2"	704902NP	high	S1112	53112024
3/4"	105652NP	std	S1134	53112034
3/4"	704904NP	high	S1134	53112034
Side entry				
1/2"	105640NP	std	S1112	53112024
1/2"	704922NP	high	S1112	53112024
3/4"	105645NP	std	S1134	53112034
3/4"	704924NP	high	S1134	53112034

NPT hood provided with NPT fitting

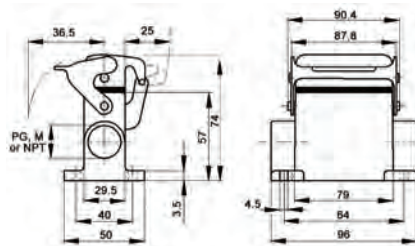
metric

Metric hood*		Profile	SKINTOP® gland	
size	part number		plastic	metal
Top entry				
20	19565000	std	53111020	53112020
20	79490200	high	53111020	53112020
25	19565300	std	53111030	53112030
25	79490400	high	53111030	53112030
Side entry				
20	19564000	std	53111020	53112020
20	79492200	high	53111020	53112020
25	19564500	std	53111030	53112030
25	79492400	high	53111030	53112030

* Top-entry and high profile hoods do not come with a neck

EPIC® HA 16 surface mount base

Surface mount with single lever



all dimensions are in mm

Technical data

IP Protection class: UL 50E Type 4, 12
IP65

Complete the installation



HA dust covers
page 429

Approvals



PG

PG base		Dust cover	SKINTOP® gland	
size	part number		plastic	metal
One entry				
16	105671	no	53015040	52015740
16	704852	yes	53015040	52015740
21	105670	no	53015050	52015750
21	704854	yes	53015050	52015750
Two entries				
16	704862	yes	53015040	52015740
21	105680	no	53015050	52015750

PG base provided with EPIC® SM/SP gland

NPT

NPT base		Dust cover	SKINTOP® gland	
size	part number		plastic	metal
One entry				
1/2"	105671NP	no	S1112	53112024
1/2"	704852NP	yes	S1112	53112024
3/4"	105670NP	no	S1134	53112034
3/4"	704854NP	yes	S1134	53112034
Two entries				
1/2"	704862NP	yes	S1112	53112024
3/4"	105680NP	no	S1134	53112034

NPT base provided with NPT fitting

metric

Metric base		Dust cover	SKINTOP® gland	
size	part number		plastic	metal
One entry				
20	19567100	no	53111020	53112020
20	79485200	yes	53111020	53112020
25	19567000	no	53111030	53112030
25	79485400	yes	53111030	53112030
Two entries				
25	19568000	no	53111030	53112030
25	79486400	yes	53111030	53112030

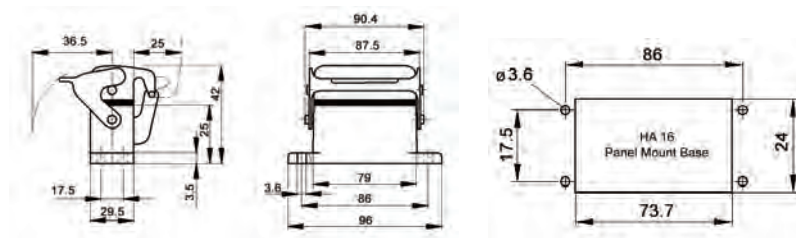
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EPIC® HA 16 panel mount base

Panel mount base with single lever



all dimensions are in mm

Technical data

IP Protection class: UL 50E Type 4, 12
IP65

Complete the installation



HA dust covers
page 429

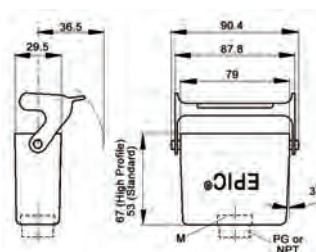
Approvals



Dust cover included	Part number
no	104620C0
yes	704740C0

EPIC® HA 16 cable coupler hood

Cable coupler with single lever



all dimensions are in mm

Technical data

IP Protection class: UL 50E Type 4, 12
IP65

Complete the installation



HA dust covers
page 429

Approvals



PG

PG coupler		SKINTOP® gland	
size	part number	plastic	metal
Standard profile			
PG 16	105630	53015040	52015740
High profile			
PG 16	704802	53015040	52015740
PG 21	704804	53015050	52015750

PG coupler provided with EPIC® SM/SP gland

NPT

NPT coupler		SKINTOP® gland	
size	part number	plastic	metal
Standard profile			
1/2"	105630NP	S 1112	53112024
High profile			
1/2"	704802NP	S 1112	53112024
3/4"	704804NP	S 1134	53112034

NPT coupler provided with NPT fitting

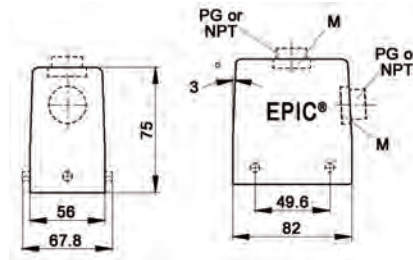
metric

Metric coupler*		SKINTOP® gland	
size	part number	plastic	metal
Standard profile			
M20	19563000	53111020	53112020
M25	19563200	53111030	53112030
High profile			
M20	79480200	53111030	53112030
M25	79480400	53111030	53112030

* Metric couplers do not come with a neck

EPIC® HA 32 standard hood

Hood with double lever bolts



all dimensions are in mm

Technical data

IP Protection class: NEMA 4, NEMA 12
IP65

Complete the installation



HA dust covers
page 429

Approvals



PG

PG hood		SKINTOP® gland	
size	part number	plastic	metal
Top entry			
PG 21	105820	53015050	52015750
PG 29	105830	53015060	52015760
Side entry			
PG 21	105760	53015050	52015750
PG 29	105770	53015060	52015760

PG hood provided with EPIC® SM/SP gland

NPT

NPT hood		SKINTOP® gland	
size	part number	plastic	metal
Top entry			
3/4"	105820NP	S1134	53112034
1"	105830NP	S1101	53112044
Side entry			
3/4"	105760NP	S1134	53112034
1"	105770NP	S1101	53112044

NPT hood provided with NPT fitting

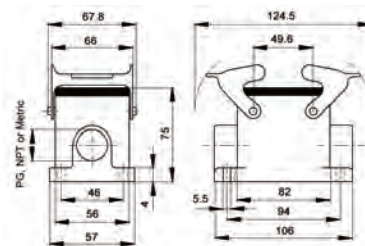
metric

Metric hood*		SKINTOP® gland	
size	part number	plastic	metal
Top entry			
M25	19582000	53111030	53112030
M32	19583000	53111040	53112040
M40	79520600	53111050	53112050
Side entry			
M25	19576000	53111030	53112030
M32	19577000	53111040	53112040
M40	19577500	53111050	53112050

* Metric hoods do not come with a neck

EPIC® HA 32 surface mount base

Surface mount base with double levers



all dimensions are in mm

Technical data

IP Protection class: NEMA 4, NEMA 12
IP65

Complete the installation



HA dust covers
page 429

Approvals



PG

PG base		SKINTOP® gland	
size	part number	plastic	metal
One entry			
PG 21	104740	53015050	52015750
PG 29	104741	53015060	52015760
Two entries			
PG 21	104820	53015050	52015750
PG 29	104821	53015060	52015760

PG base provided with EPIC® SM/SP gland

NPT

NPT base		SKINTOP® gland	
size	part number	plastic	metal
One entry			
3/4"	104740NP	S1134	53112034
1"	104741NP	S1101	53112044
Two entries			
3/4"	104820NP	S1134	53112034
1"	104821NP	S1101	53112044

NPT base provided with NPT fitting

metric

Metric base*		SKINTOP® gland	
size	part number	plastic	metal
One entry			
M25	19474000	53111030	53112030
M32	19474100	53111040	53112040
Two entries			
M25	19482000	53111030	53112030
M32	19482100	53111040	53112040
M40	79506800	53111050	53112050

* Metric bases do not come with a neck

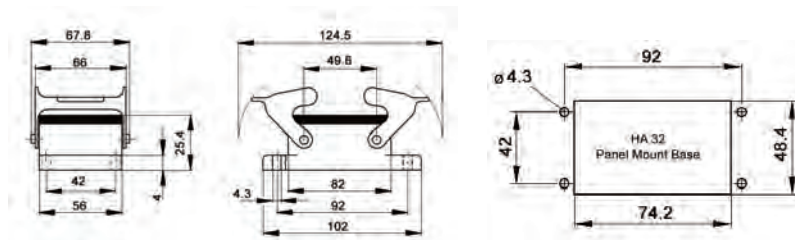
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EPIC® HA 32 panel mount base

Panel mount base with double levers



all dimensions are in mm

Technical data

IP Protection class: NEMA 4, NEMA 12
IP65

Complete the installation



HA dust covers
page 429

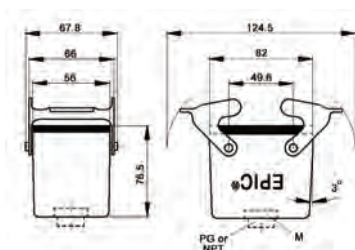
Approvals



Dust cover included	Part number
no	104720C0

EPIC® HA 32 cable coupler hoods

Cable coupler with double levers



all dimensions are in mm

Technical data

IP Protection class: NEMA 4, NEMA 12
IP65

Complete the installation



HA dust covers
page 429

Approvals



PG

PG coupler		SKINTOP® gland	
size	part number	plastic	metal
Standard profile			
PG 21	105880	53015050	52015750
PG 29	105885	53015060	52015760

PG coupler provided with EPIC® SM/SP gland

NPT

NPT coupler		SKINTOP® gland	
size	part number	plastic	metal
Standard profile			
¾"	105880NP	S 1134	53112034
1"	105885NP	S 1101	53112044

NPT coupler provided with NPT fitting

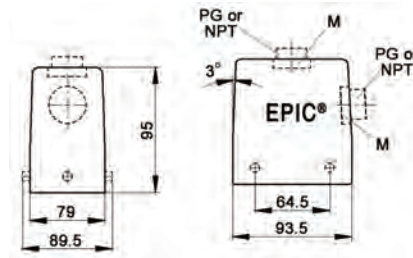
metric

Metric coupler*		SKINTOP® gland	
size	part number	plastic	metal
Standard profile			
M25	19588000	53111030	53112030
M32	19588500	53112030	53112040

* Metric couplers do not come with a neck

EPIC® HA 48 standard hood

Hood with double lever bolts



all dimensions are in mm

Technical data

IP Protection class: NEMA 4, NEMA 12
IP65

Complete the installation



HA dust covers
page 429

Approvals



PG

PG hood		SKINTOP® gland	
size	part number	plastic	metal
Top entry			
PG 29	106318	53015060	52015760
Side entry			
PG 29	106308	53015060	52015760

PG hood provided with EPIC® SM/SP gland

NPT

NPT hood		SKINTOP® gland	
size	part number	plastic	metal
Top entry			
1"	106318NP	S1101	53112044
Side entry			
1"	106308NP	S1101	53112044

NPT hood provided with NPT fitting

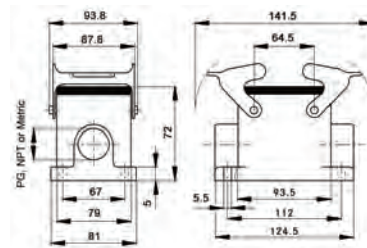
metric

Metric hood*		SKINTOP® gland	
size	part number	plastic	metal
Top entry			
M32	19631800	53111040	53112040
M40	19636600	53111050	53112050
Side entry			
M32	19630800	53111040	53112040
M40	19635600	53111050	53112050

* Metric hoods do not come with a neck

EPIC® HA 48 surface mount base

Surface mount base with double levers



all dimensions are in mm

Technical data

IP Protection class: NEMA 4, NEMA 12
IP65

Complete the installation



HA dust covers
page 429

Approvals



PG

PG base		SKINTOP® gland	
size	part number	plastic	metal
One entry			
PG 29	106338	53015060	52015760

PG base provided with EPIC® SM/SP gland

NPT

NPT base		SKINTOP® gland	
size	part number	plastic	metal
One entry			
1"	106338NP	S1101	53112044

NPT base provided with NPT fitting

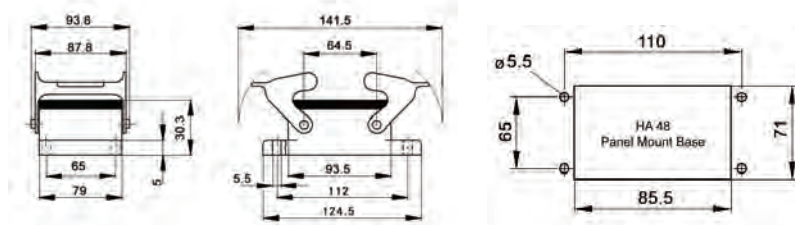
metric

Metric base*		SKINTOP® gland	
size	part number	plastic	metal
One entry			
M32	19633800	53111040	53112040
M40	19638600	53111050	53112050
Two entries			
M40	19639600	53111050	53112050

* Metric bases do not come with a neck

EPIC® HA 48 panel mount base

Panel mount base with double levers



all dimensions are in mm

Technical data

IP Protection class: NEMA 4, NEMA 12
IP65

Complete the installation



HA dust covers
page 429

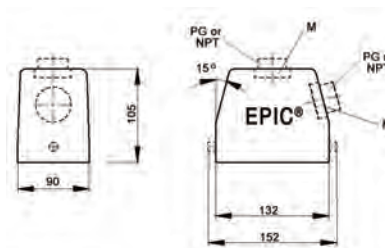
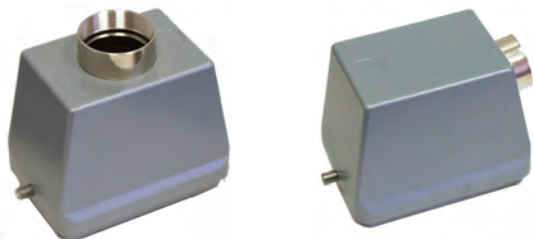
Approvals



Dust cover included	Part number
no	106255C0

EPIC® HA 64 standard hood

Hood with single lever bolts



all dimensions are in mm

Technical data

IP Protection class: NEMA 4, NEMA 12
IP65

Complete the installation



HA dust covers
page 429

Approvals



PG

PG hood		SKINTOP® gland	
size	part number	plastic	metal
Top entry			
PG 29	101550HA	53015060	52015760
PG 36	101560HA	53015070	52015765
PG 42	101570HA	53015080	52015766
Side entry			
PG 29	101580HA	53015060	52015760
PG 36	101590HA	53015070	52015765
PG 42	101600HA	53015080	52015766

PG hood provided with EPIC® SM/SP gland

NPT

NPT hood		SKINTOP® gland	
size	part number	plastic	metal
Top entry			
1"	101550NP-HA	S 1101	53112044
1¼"	101560NP-HA	—	53112054
Side entry			
1"	101580NP-HA	S 1101	53112044
1¼"	101590NP-HA	—	53112054

NPT hood provided with NPT fitting

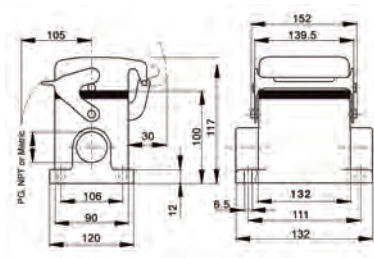
metric

Metric hood*		SKINTOP® gland	
size	part number	plastic	metal
Top entry			
M32	191550HA	53111040	53112040
M40	191560HA	53111050	53112050
M50	191570HA	53111060	53112060
Side entry			
M32	191580HA	53111040	53112040
M40	191590HA	53111050	53112050
M50	191600HA	53111060	53112060

* Metric hoods do not come with a neck

EPIC® HA 64 surface mount base

Surface mount base with single lever



all dimensions are in mm

Technical data

IP Protection class: NEMA 4, NEMA 12
IP65

Complete the installation



HA dust covers
page 429

■ Approvals



PG

PG base		Dust cover	SKINTOP [®] gland	
size	part number		plastic	metal
One entry				
29	101650HA	no	53015060	52015760
29	101670HA	yes	53015060	52015760
36	101651HA	no	53015070	52105765
36	101671HA	yes	53015070	52015765
Two entries				
29	101660HA	no	53015060	52015760
29	101680HA	yes	53015060	52015760
36	101661HA	no	53015070	52105765
36	101681HA	yes	53015070	52015765

PG base provided with EPIC® SM/SP gland

NPT

NPT base size part number		Dust cover	SKINTOP® gland plastic metal	
One entry				
1"	101650NP-HA	no	S1101	53112044
1"	101670NP-HA	yes	S1101	53112044
1¼"	101651NP-HA	no	—	53112054
1¼"	101671NP-HA	yes	—	53112054
Two entries				
1"	101660NP-HA	no	S1101	53112044
1"	101680NP-HA	yes	S1101	53112044
1¼"	101661NP-HA	no	—	53112054
1¼"	101681NP-HA	yes	—	53112054

NPT base provided with NPT fitting

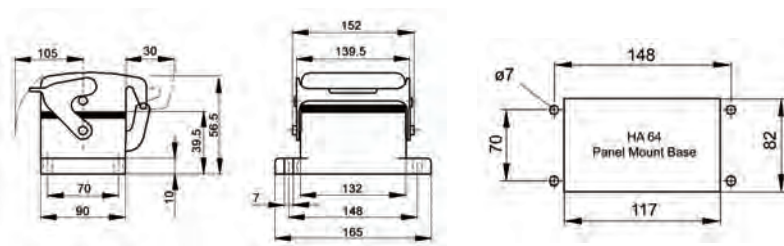
metric

Metric base* size part number		Dust cover	SKINTOP® gland plastic metal	
One entry				
32	191650HA	no	53111040	53112040
32	191670HA	yes	53111040	53112040
40	191651HA	no	53111050	53112050
40	191671HA	yes	53111050	53112050
Two entries				
32	191660HA	no	53111040	53112040
32	191680HA	yes	53111040	53112040
40	191661HA	no	53111050	53112050
40	191681HA	yes	53111050	53112050

* Metric bases do not come with a neck

EPIC® HA 64 panel mount base

Panel mount base with single lever



all dimensions are in mm

Technical data

IP Protection class: NEMA 4, NEMA 12
IP65

Complete the installation



HA dust covers
page 429

■ Approvals



Dust cover included	Hardware	Part number
no	—	101610HA
yes	dust cover bolts & hold down screw	101525HA
yes	hold down screw	101520HA

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Glands, seal rings & adapters

- 426 EPIC® SM/SP/CM gland kits
- 427 D series pressure screws
- 427 U series washers
- 427 E series neoprene concentric sealing rings
- 427 EV series Viton® concentric sealing rings
- 428 PG/NPT/metric adapters
- 428 PG & metric reducers
- 428 PG & metric enlargers
- 428 Metal hole plugs

Dust covers

- 429 EPIC® HA dust covers
- 429 EPIC® HB dust covers
- 429 EPIC® ULTRA dust covers 

Tools

- 430 EPIC® rectangular hole punch
For EPIC® HB panel mount bases and SKINTOP® multi-cable bushing systems
- 431 Easy Strip 2
Stripping & cutting tool
- 431 Crimp tool & case
- 431 Module removal tool
For EPIC® MC series inserts
- 431 Adjustable torque screwdriver

Replacement parts

- 432 Flat gaskets
- 432 Replacement parts
For EPIC® rectangular inserts
- 432 Replacement parts
For EPIC® rectangular housings

Coding pins

- 433 Coding with key pin**
- 433 Coding with guide pin & socket**
For screw, crimp & cage clamp termination
- 433 Coding with contact loss**

Split hoods

- 434 HB split hoods with double latch bolts**
For EPIC® HB 16 & HB 24 housings
- 434 Split hood grommets**

Adapter plates

- 435 Cover plates for panel cutouts**
- 435 Adapters for D-sub connectors**

DIN rail mounting system

- 436 EPIC® QUICK & EASY DIN rail mounting system**

EPIC® SM/SP/CM gland kits

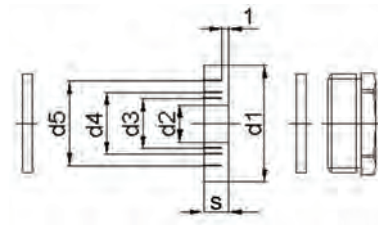
EPIC® SM



EPIC® SP



EPIC® CM



Technical data



Material:

- EPIC® SM & CM:
- EPIC® SP:

nickel-plated brass
polystyrol



Temperature range:

- EPIC® SM & CM: -40°C to +125°C
- EPIC® SP: -20°C to +55°C



Protection class:

- EPIC® CM: IP54 (DIN 46320)

EPIC® SM

Part number	Size	d1 mm	mm	d2 cable OD	mm	d3 cable OD	mm	d4 cable OD	mm	d5 cable OD	s mm	Wrench size mm	Pack size
PG thread													
12954200	PG 11	16.5	7.5	6.5 - 8.5	10	9 - 11	12.5	11.5 - 13.5	—	—	6	18	5
12954300	PG 13	18.3	7.5	6.5 - 8.5	10	9 - 11	12.5	11.5 - 13.5	—	—	6	20	5
12954400	PG 16	20.4	7.5	6.5 - 8.5	10	9 - 11	12.5	11.5 - 13.5	15	14 - 16	7	22	5
12954500	PG 21	25.9	10	9 - 11	13	12 - 14	16	15 - 17	19	18 - 20	8	28	5
12954600	PG 29	34.7	18	17 - 19	21	20 - 22	24	23 - 25	27	26 - 28	9.5	37	5
12954700	PG 36	44.7	24	23 - 25	27	26 - 28	30	29 - 31	33	32 - 34	12	47	5
12954800	PG 42	51.7	30	29 - 31	33	32 - 34	36	35 - 37	39	38 - 40	14	54	5
Metric thread													
71200000	M12	10	5	4 - 6	—	—	—	—	—	—	5	12	5
71200200	M20	17.6	4	3 - 5	7	6 - 8	10	9 - 11	13	12 - 14	6	20	5
71200300	M25	22.6	8.5	7.5 - 9.5	11.5	10.5 - 12.5	14.5	13.5 - 15.5	17.5	16.5 - 18.5	7.5	25	5
71200400	M32	29.6	16	15 - 17	19	18 - 20	22	21 - 23	25	24 - 26	9.5	32	5
71200500	M40	37.6	23	22 - 24	26	25 - 27	29	23 - 28	32	31 - 33	12	40	5

EPIC® SP

Part number	Size	d1 mm	mm	d2 cable OD	mm	d3 cable OD	mm	d4 cable OD	mm	d5 cable OD	s mm	Wrench size mm	Pack size
PG thread													
12957100	PG 11	16.5	7.5	6.5 - 8.5	10	9 - 11	12.5	11.5 - 13.5	—	—	6	19	5

EPIC® CM

Part number	Size	d1 mm	mm	d2 cable OD	mm	d3 cable OD	mm	d4 cable OD	mm	d5 cable OD	s mm	Wrench size mm	Pack size
Metric thread													
71201200	M20	17.6	4	3 - 5	7	6 - 8	10	9 - 11	13	12 - 14	6	23	5
71201300	M25	22.6	8.5	7.5 - 9.5	11.5	10.5 - 12.5	14.5	13.5 - 15.5	17.5	16.5 - 18.5	7.5	28	5
71201400	M32	29.6	16	15 - 17	19	18 - 20	22	21 - 23	25	24 - 26	9.5	36	5
71201500	M40	37.6	23	22 - 24	26	25 - 27	29	23 - 28	32	31 - 33	12	46	5

D series pressure screws



Technical data

 Material:	nickel-plated brass
 Specifications:	DIN 46320

Part number	Size	Wrench size mm	Pack size
52100200	PG 7	13	100
52100220	PG 11	18	100
52100240	PG 16	22	50
52100250	PG 21	28	50
52100260	PG 29	37	25
52100270	PG 36	47	10

U series washers



Technical data

 Material:	galvanized steel
 Specifications:	DIN 46320

Part number	Size	External diameter mm	Internal diameter mm	Thickness mm	Pack size
52010170	PG 7	11	8	0.8	100
52010180	PG 9	13.5	10	0.8	100
52010190	PG 11	17	12	0.8	100
52010200	PG 13	18.5	14	0.8	100
52010210	PG 16	20.5	16	0.8	50
52010220	PG 21	26	21	0.8	50
52010230	PG 29	35	30	0.8	25
52010240	PG 36	45	38	0.8	10

E series neoprene concentric sealing rings



Technical data

 Material:	neoprene
--	----------

These rings can be individually adapted to various cable diameters by removing the appropriate sizes. They are also suitable for half glands.

Part number	Size	External diameter mm	Concentric bores mm	Pack size
52005780	PG 9	13.5	5 • 8	500
52003690	PG 11	16.5	7 • 10 • 12.5	500
52003700	PG 13	18.5	7 • 10.5 • 13 • 16	500
52003710	PG 16	20.5	8 • 10.5 • 13.5 • 16	500
52003720	PG 21	26	11 • 15 • 18 • 20	100
52003730	PG 29	35	19 • 23 • 27 • 31	100
52003740	PG 36	45	25 • 28 • 31 • 35	50

EV series Viton® concentric sealing rings



Technical data

 Material:	Viton®
 Temperature range:	up to +165 °C

These rings can be individually adapted to various cable diameters by removing the appropriate sizes. They are also suitable for half glands.

Part number	Size	External diameter mm	Concentric bores mm	Pack size
52010340	PG 11	16.5	7 • 10 • 12.5	50
52010350	PG 13	18.5	7 • 10.5 • 13 • 16	50
52010370	PG 21	26	11 • 15 • 18 • 20	25
52010380	PG 29	35	19 • 23 • 27 • 31	25

Viton® is a registered trademark of E.I. du Pont de Nemours and Company.

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PG/NPT/metric adapters



Technical data

Material: nickel-plated brass
brass

Specifications: DIN 46320

For product information and part numbers, see page 552

PG & metric reducers



Technical data

Material: nickel-plated brass

Specifications: DIN 46320

For product information and part numbers, see page 550

PG & metric enlargers



Technical data

Material: nickel-plated brass

Specifications: DIN 46320

For product information and part numbers, see page 551

Metal hole plugs



Hole plugs are for use when existing PG-threaded holes are not yet or no longer required. For product information and part numbers, see page 549.

Technical data

Material: nickel-plated brass

Complete the installation



Blind hood
plug:
10053010

EPIC® HA dust covers



EPIC® HA series protective covers are made of impact-resistant plastic, which provides effective protection against environmental influences. Inserts are easily protected when not in use. EPIC® HA 3/4 covers are for use with surface mount bases, panel mount bases, and cable coupler hoods.

Technical data

Material: thermoplastic resin
aluminum

Temperature range: -40°C to +125°C

Part number with string	Part number without string	Material	Description	Gasket
HA 3/4				
10430400	10430000	plastic	for housing with plug	no
10430100	10430300	plastic	for housing with receptacle	yes
10513000	—	metal	for housing with plug	no
10513100	—	metal	for housing with receptacle	yes
HA 10				
10457600	10457800	plastic	for hoods	no
10457500	10457700	plastic	for bases & couplers	yes

Part number with string	Part number without string	Material	Description	Gasket
HA 16				
10469600	10469800	plastic	for hoods	no
10469500	10469700	plastic	for bases & couplers	yes
HA 32				
10481600	10481800	plastic	for hoods	yes
10481500	10481700	plastic	for bases & couplers	no
HA 48				
10118020	—	plastic	for bases & couplers	no

EPIC® HB dust covers



EPIC® HB series protective covers are made of impact-resistant plastic, which provides effective protection against environmental influences. Inserts are easily protected when not in use. Attachment string is included with all dust covers.

Technical data

Material: thermoplastic resin

Part number	Lever or bolts	Description	Gasket
HB 6			
10016500	single lever	for hoods	yes
10015000	single lever bolts	for bases & couplers	no
HB 10			
10048600	single lever	for hoods	no
10048700	single lever bolts	for bases & couplers	no
10048500	double levers	for hoods	yes
10047000	double lever bolts	for bases & couplers	no
HB 16			
10088600	single lever	for hoods	no
10088700	single lever bolts	for bases & couplers	no
10088500	double levers	for hoods	yes
10087000	double lever bolts	for bases & couplers	no

Part number	Lever or bolts	Description	Gasket
HB 24			
10118600	single lever	for hoods	no
10118700	single lever bolts	for bases & couplers	no
10119500	double levers	for hoods	yes
10118000	double lever bolts	for bases & couplers	no
HB 32			
10118020	double lever bolts	for bases & couplers	no

EPIC® ULTRA dust covers



Part number	Lever or bolts	Description
ULTRA HB 6		
70250254	single lever	for hoods
70250250	single lever bolts	for bases
ULTRA HB 10		
70250255	double levers	for hoods
70250251	double lever bolts	for bases

Part number	Lever or bolts	Description
ULTRA HB 16		
70250256	double levers	for hoods
70250252	double lever bolts	for bases
ULTRA HB 24		
70250257	double levers	for hoods
70250253	double lever bolts	for bases

Technical data

Material:
- cover: FDA-approved plastic
- bolts & levers: stainless steel

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EPIC® rectangular hole punch

For EPIC® HB panel mount bases and SKINTOP® multi-cable bushing systems



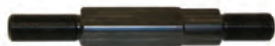
EPIC® rectangular hole punches provide a quick, accurate means of cutting clearance holes for mounting EPIC® HB series rectangular panel mount bases and SKINTOP® CUBE/CUBE MULTI multi-cable bushing systems without sawing or filing. The dies include four drill guide holes for the base's screw mounting holes. Centering alignment marks are also included for easy squaring of the die with the panel cabinet. The unique 2-piece die configuration simplifies scrap slug removal.

The EPIC® hole punches can be used with mild steel up to 14 GA (2.0 mm) thickness or aluminum up to 10 GA (2.54 mm). These punches are intended for manual use with a ratchet or other suitable wrench or with a hand- or foot-operated hydraulic driver and ram using a ¾" draw stud.

Requirements for manual operation: One draw stud set and one punch & die set in the required size

Requirements for hydraulic operation: One punch & die set in the required size and if needed, one ¾" draw stud

¾" × 7" draw stud



Part number
61U00198

¾" × 7" draw stud set



Set includes: draw stud, drive nut, counter nut, ball bearing, and spacer

Part number
61U00197

Punch & die sets



Size	Part number	Max. panel thickness
HB 6	61U00199	mild steel: 14 GA (2.0 mm) aluminum: 10 GA (2.54 mm)
HB 10	61U00200	
HB 16	61U00201	
HB 24	61U00203	

Panel cutouts

○	HB6 (L x W mm) Cutout - 52.2 x 35 Holes - 70 x 32 (4) 4.3 dia	○
○	HB10 (L x W mm) Cutout - 65.2 x 35 Holes - 83 x 32 (4) 4.3 dia	○
○	HB16 (L x W mm) Cutout - 85.5 x 35 Holes - 103 x 32 (4) 4.3 dia	○
○	HB24 (L x W mm) Cutout - 112.2 x 35 Holes - 130 x 32 (4) 4.3 dia	○

Easy Strip 2

Stripping & cutting tool



For PVC and similarly insulated conductors.
Includes "X" blade cartridge.

Size range	Part number
up to 8 AWG (10 mm ²)	61735800

Crimp tool & case



Contact tools



Crimp dies
page 289



Locators
page 289



Removal tools
page 289

Crimp range	Part number
26 - 8 AWG (0.14 - 10 mm ²)	11147000

Module removal tool

For EPIC® MC series inserts



For removing EPIC® MC series modules from module mounting frames
Required for 3, 4+PE, 5, 10 & 20 contact modules; dummy, cage clamp, Ethernet & pneumatic modules

Part number
11171200

Approvals



Adjustable torque screwdriver



Torque settings	Part number
0.3 - 1.2 Nm (2.7 - 10.6 in-lbs)	61813958

Flat gaskets

For EPIC® HB & HA panel mount bases



HB series

Part number	For EPIC® housing
10051000	HB 6
10051200	HB 10
10051400	HB 16
10051600	HB 24
10052000	HB 32
10052200	HB 48

HA series

Part number	For EPIC® housing
10607100	HA 3/4
10607200	HA 10
10607300	HA 16
10607600	HA 32
10052000	HA 48
10052200	HA 64

Approvals



Replacement parts

For EPIC® rectangular inserts



Description	Part number	For EPIC® inserts	Pack size
Screw with O-ring	44423017	HD 7, HD 8	10
Screw with O-ring	10608500	HA 3/4, HQ 5	10
Replacement screw	44423018	STA	10
Male switch contact	44423021	HBVE	1

Approvals



Replacement parts

For EPIC® rectangular housings



Description	Part number	For EPIC® housings
Lever + 2x threaded lever-mounting bolts	10017101	HB 48, HA 64 panel mount bases
Black plastic roller	10055000	HB single lever housings
Plated steel clip	10056014	HB single lever housings
Heavy duty stainless steel roller	10055100	HB single lever housings
Heavy duty stainless steel clip	10056013	HB single lever housings

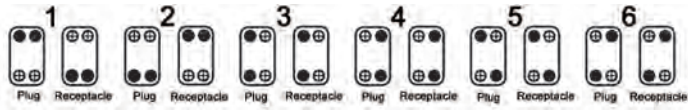
If not otherwise specified, all values relating to the product are nominal values.
Photographs are not to scale and are not true representations of the products in question.

Coding with key pin



Coding is used when several connectors are mounted next to one another. This helps prevent incorrect connections.

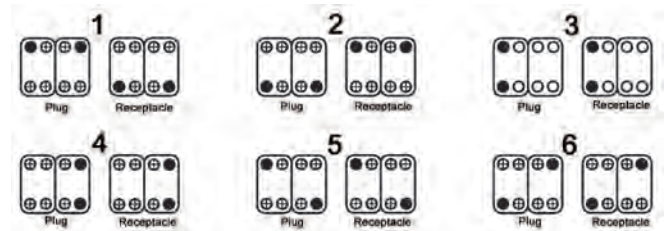
key positions for 1 insert



● key pin

⊕ fixing screw

key positions for 2 inserts

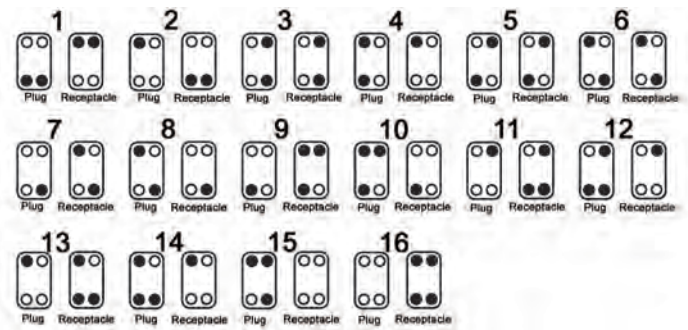


Coding with guide pin & socket

For screw, crimp & cage clamp termination



key positions for 1 insert

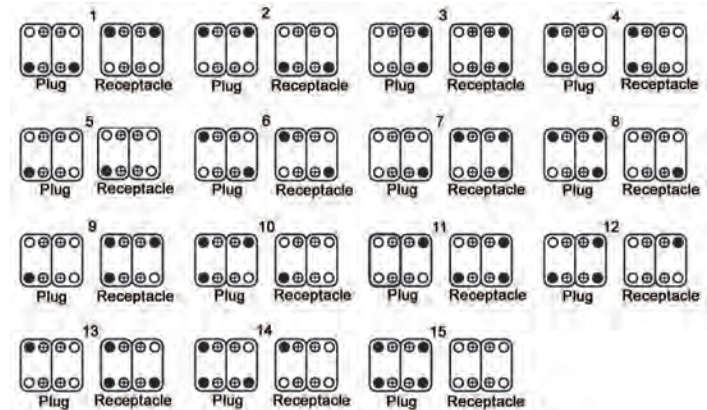


● guide pin

○ guide socket

⊕ fixing screw

key positions for 2 inserts



Coding with contact loss

HA 3/4

HQ 5

HQ 12



Part number	For EPIC® inserts	Pack size
10451400	HA 3/4	50
10436500	HQ 5	10
44424052	HQ 12	10

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Courtesy of Steven Engineering, Inc - (800) 258-9200 - sales@steveneng.com - www.stevenengineering.com

HB split hoods with double latch bolts

For EPIC® HB 16 & HB 24 housings



Split hoods allow three or four cable assemblies to pass through one hood, providing a convenient way to pass finished cables into a panel without having to re-terminate the assembly. A maximum of four cables ranging in size from 3 mm to 16 mm each may pass through a single hood.

Both the HBSH 16 and HBSH 24 hoods can accommodate any combination of the grommets listed below. When used with the grommets, the split hood provides an IP54 environmental seal.

Part number	Gland openings	Cable outer diameter	EPIC® HB panel mount base
HBSH16	3 openings	3 mm - 16 mm	100720C0
HBSH24	4 openings	3 mm - 16 mm	101020C0

Split hood grommets



Thermoplastic rubber split grommets are available in a range of sizes. The grommets seal around the cables and provide IP54 protection as well as strain relief in the mated and assembled position. The HBSH 16 housing is capable of accommodating 3 glands; the HBSH 24 housing can accommodate 4 glands.

Technical data

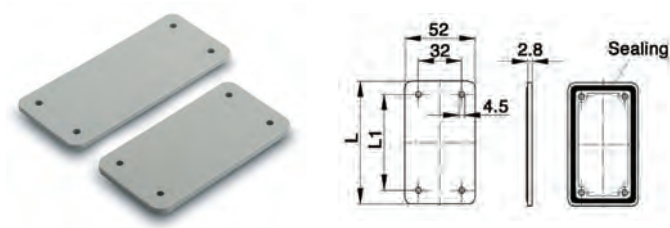
 **Material:** thermoplastic rubber
(UL approved)

 **Temperature range:** -40°C to +140°C

Part number	Clamp range mm	Pack size
SHG 3	3 - 4	10
SHG 4	4 - 5	10
SHG 5	5 - 6	10
SHG 6	6 - 7	10
SHG 7	7 - 8	10
SHG 8	8 - 9	10
SHG 9	9 - 10	10

Part number	Clamp range mm	Pack size
SHG10	10 - 11	10
SHG11	11 - 12	10
SHG12	12 - 13	10
SHG13	13 - 14	10
SHG14	14 - 15	10
SHG15	15 - 16	10
SHG 0	blank	10

Cover plates for panel cutouts

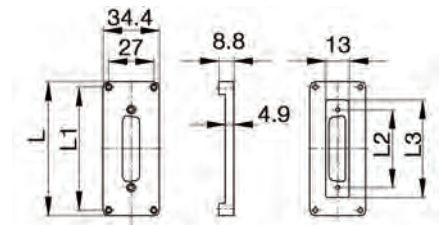


Part number	Size	Dimensions (mm)	
		L	L1
10018920	HB 6	90.5	70.0
10018921	HB 10	103.0	83.3
10018922	HB 16	123.5	103.0
10018923	HB 24	150.0	130.0

Plates do not include mounting screws

Adapters for D-sub connectors

Single D-sub connectors

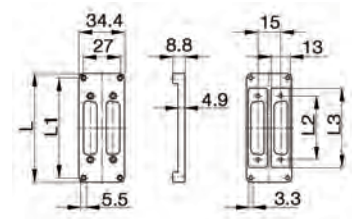


Part number	Size	DB cutout	L	Dimensions (mm)		
				L1	L2	L3
11764200	HB 6	DB 9	51.3	44.0	25.0	31.4
11764202	HB 6	DB 15	51.3	44.0	33.3	39.2

Includes mounting screws

Part number	Size	DB cutout	L	Dimensions (mm)		
				L1	L2	L3
11764300	HB 10	DB 25	64.2	57.0	47.1	53.1
11764400	HB 16	DB 25	85.0	77.5	47.1	53.6

Double D-sub connectors

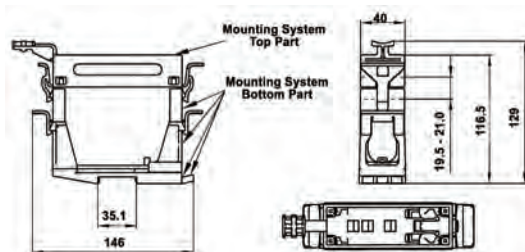
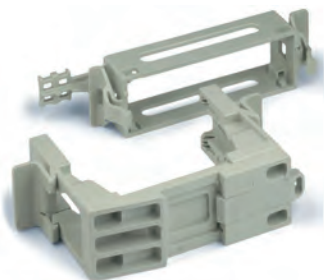


Part number	Size	DB cutout	L	Dimensions (mm)		
				L1	L2	L3
11764201	HB 6	DB 9 (x2)	51.3	44.0	25.0	31.4
11764203	HB 6	DB 15 (x2)	51.3	44.0	33.3	39.2

Includes mounting screws

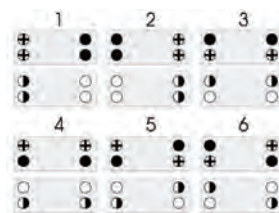
Part number	Size	DB cutout	L	Dimensions (mm)		
				L1	L2	L3
11764301	HB 10	DB 25 (x2)	64.2	57.0	47.1	53.1
11764401	HB 16	DB 25 (x2)	85.0	77.5	47.1	53.6

EPIC® QUICK & EASY DIN rail mounting system



all dimensions are in mm

The EPIC® QUICK & EASY system greatly simplifies mounting a wide range of EPIC® connectors onto standard DIN rail without the added cost of housings. The system can be purchased as one complete unit or the upper and lower portions can be purchased separately. The upper portions come in 4 different sizes to accommodate EPIC® HBE, HEE, HBS, HDVE, HD, HDD & Modular (MC) contact inserts. The bottom portion of the system adjusts to accommodate 4 sizes. The system components lock in place via snap hooks and are directly mateable with existing systems. The slider latch allows for quick removal and attachment of the base from the DIN rail for wiring. Also, the unit can be labeled in three places with printed or handwritten labels. A special coding set with key pin allows for coding of the inserts to prevent mismatching side-by-side connectors.



- guide pin
- ⊕ fixing screw
- coding plug
- open

Complete the installation



Coding set
(pack of 50):
10028000



Insert
removal tool:
10028100

Technical data



Locking device:

for DIN rail acc. to DIN EN 50022



Temperature range:

-40°C to +125°C



Material:

gray phosphorus- & halogen-free
polycarbonate



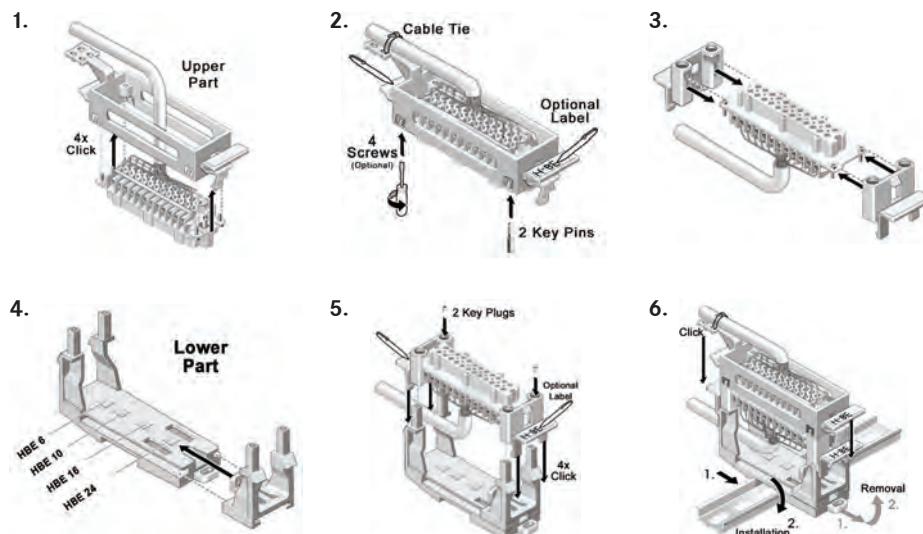
Combustibility class:

V-0 per UL 94

Part number	Size
Complete system	
10027000	HB 6
10027100	HB 10
10027200	HB 16
10027300	HB 24
Upper part only	
10027410	HB 6
10027510	HB 10
10027610	HB 16
10027710	HB 24
Lower part only	
10027810	HB 6 - 24

Size	For EPIC® inserts						
	HBE	HEE	HBS	HBVE	HD	HDD	MC
HB 6	HBE 6	HEE 10	—	—	—	HDD 24	MC 2
HB 10	HBE 10	HEE 18	—	HBVE 3	—	HDD 42	MC 3
HB 16	HBE 16	HEE 32	HBS 6	HBVE 6	HD 40	HDD 72	MC 5
HB 24	HBE 24	HEE 46	—	HBVE 10	HD 64	HDD 108	MC 7

six easy steps: click – snap – ready!



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438 Quick select chart

EPIC® POWER M12

Compact screw-terminated circular connectors for power applications

439 EPIC® POWER M12 connectors

440 EPIC® POWER M12 panel mount bases

EPIC® POWER LS1

Rugged nickel-plated zinc connectors for power applications

441 EPIC® POWER LS1 connectors

445 EPIC® POWER LS1 accessories & tools

445 Replacement contacts

EPIC® SIGNAL M23

Rugged nickel-plated zinc connectors for signal applications

446 EPIC® SIGNAL M23 connectors

447 EPIC® SIGNAL M23 contacts

451 EPIC® SIGNAL M23 accessories & tools

EPIC® SIGNAL R3.0

High-density circular connectors for signal applications

452 EPIC® SIGNAL R3.0 connectors

452 EPIC® SIGNAL R3.0 accessories & tools

Quick select chart

			EPIC® POWER M12 page 439	EPIC® POWER LS1 page 441	EPIC® SIGNAL M23 page 446	EPIC® SIGNAL R3.0 page 452
Contacts/configuration	4	3+PE	✓			
	6	5+PE		✓		
	6	6			✓	
	7	7			✓	
	8	3+PE+4		✓		
	9	8+1			✓	
	9	9			✓	
	12	12			✓	
	16	16			✓	
	17	17			✓	
	21	21				✓
	26	26				✓
Max. rated voltage	24V					✓ (AC)
	50V				✓	
	60V					✓ (DC)
	100V				✓	
	150V				✓	
	600 - 630V		✓	✓		
Max. rated current	7A			✓	✓	
	7.5A					✓
	12A		✓			
	14A				✓	
	26A			✓		
Termination type/ wire size	screw termination		✓			
	solder termination				✓	✓
	crimp termination			✓	✓	
	26 - 18 AWG			✓	✓	✓
	18 - 16 AWG		✓			
	20 - 14 AWG			✓		
	18 - 14 AWG				✓	
	12 AWG			✓		

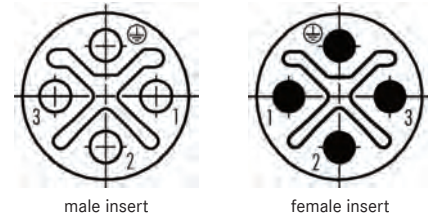
Refer to the specific connector series page for more detail

EPIC® POWER M12

Compact screw-terminated circular connectors for power applications



view from contact side



Approvals



Application advantage

- M12 3+PE screw-terminated connector
- Voltage up to 630V and current up to 12A
- Reliable connection in a compact form factor
- Coded connector face eliminates connection errors
- IP67 high protection rating

EPIC® POWER M12 connectors are available in six housing styles and two M16 harness panel mounts. Common to all arrangements is a tough polyamide housing, integral strain relief, environmental protection, and gold-plated contacts. The inherent properties of PA provide good wear resistance and ease of connection.

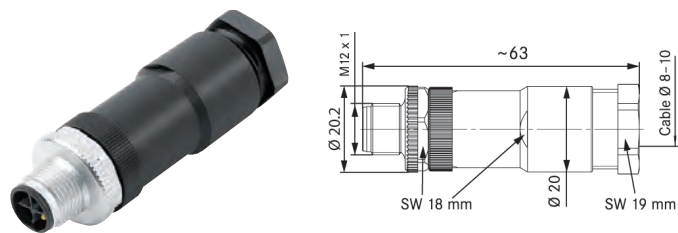
The connector is S-coded and is designed not to accept other devices with different coding. Contacts are gold-plated for improved conductivity and assembly is made easy with screw-in terminals.

Technical data

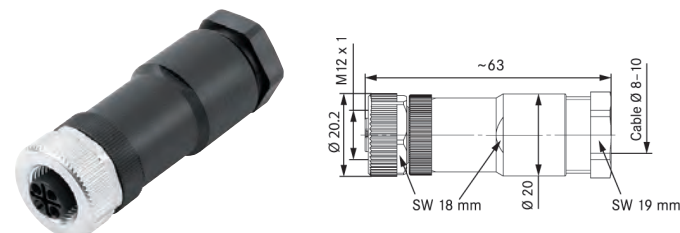
Number of contacts:	3+PE, S-coded	Protection class:	IP67
Temperature range:	-40°C to +85°C	Cable diameter:	8-10 mm
Rated voltage:	630V	Mating cycles:	100
Rated impulse voltage:	6kV	Contact material:	
Rated current:	12A	- housing:	PA
Wire size:	19-16 AWG	- contacts:	gold-plated copper alloy

EPIC® POWER M12 connectors

male cable coupler



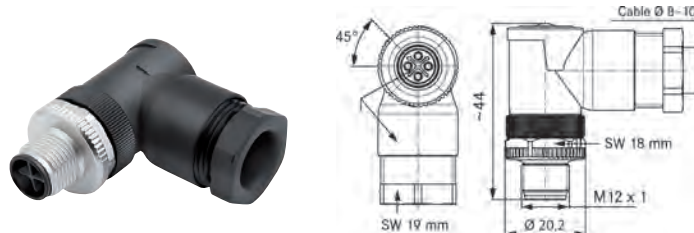
female cable connector



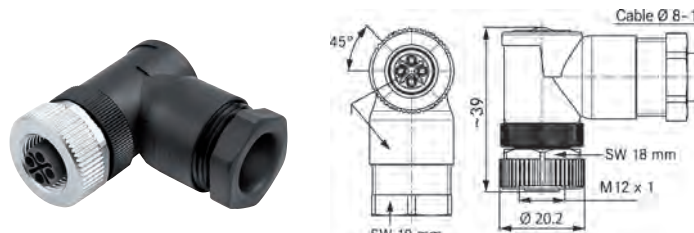
all dimensions are in mm

male	Part number	female	Contact configuration
M12 straight connectors			
44423140		44423141	3+PE

male 90° cable coupler



female 90° cable connector



all dimensions are in mm

male	Part number	female	Contact configuration
M12 90° connectors			
44423142		44423143	3+PE

The contact carrier can be fixed in four different 90° positions

EPIC® POWER M12 panel mount bases

male panel mount base



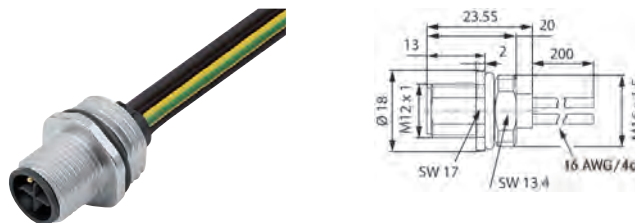
female panel mount base



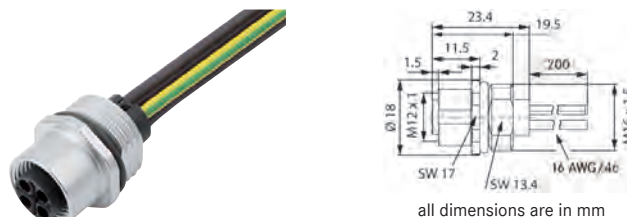
all dimensions are in mm

male	Part number	female	Contact configuration
M12 field wireable			
44423144		44423145	3+PE

male pre-wired panel mount base



female pre-wired panel mount base



all dimensions are in mm

male	Part number	female	Contact configuration	Cable incl. ground	Cable length in
M12 pre-wired					
44423146		44423147	3+PE	16 AWG/4c	7.8

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EPIC® POWER LS1

Rugged nickel-plated zinc connectors for power applications



Approvals



Application advantage

- Rugged nickel-plated, die-cast zinc body
- Positive vibration protection for use with motor drives and moving assemblies
- Integral EMC cable gland provides strain-relief, IP67/68 protection, and 360° shielding

EPIC® POWER LS1 connectors are available in seven housing styles and two contact configurations. Common to all arrangements are a rugged nickel-plated zinc body, plastic contact insulation body and sleeve, and gold-plated electrical contacts (included with the connector part number). Cable-mounted arrangements also include an integral EMC shield ring, cable clamp, and seal. The figure above shows the general construction of these connectors.

These connectors are offered with two contact configurations. The 5+PE contact configuration for power distribution has 5 contacts plus ground, and is rated at 630V and 25A. For feedback and servo motor with brake applications, the 3+PE+4 contact configuration handles mixed power and signal requirements with 3 contacts plus ground, rated 630V and 26A, and 4 contacts rated 250V and 7A. When used in combination, they connect one flexible cable with another (cable coupler) or one flexible cable to fixed wiring on a machine (appliance coupler).

Technical data

Number of contacts:	5+PE, 3+PE+4	Wire gauge (crimp termination):	
Temperature range:	-25°C to +125°C	- 2 mm contacts:	
Rated voltage:		- styles A1, A3, G5:	20 - 14 AWG (0.5 - 2.5 mm²)
- UL:	600V	- styles D, F:	20 - 12 AWG (0.5 - 4.0 mm²)
- VDE:		- 1 mm contacts:	26 - 18 AWG (0.14 - 1.0 mm²)
- 2 mm contacts:	630V	Cable diameter:	7.5 - 15.5 mm
- 1 mm contacts:	250V	- styles D & F:	14 - 17 mm
Rated current:		Mating cycles:	500
- 2 mm contacts:	25A (5+PE)	Material:	
- 26A (3+PE+4)		- housing:	nickel-plated die-cast zinc
- 1 mm contacts:	7A	- insulation body:	PA, PBT, V-0 per UL 94
Impulse voltage:		- contacts:	gold-plated copper alloy
- 2 mm contacts:	6kV	- gaskets & seals:	FPM
- 1 mm contacts:	4kV	Contact resistance:	< 4 mΩ
Protection class:	IP68 (10h/1m)	Approvals:	DIN EN 61984
- style A3:	IP65		cRUus #E75770

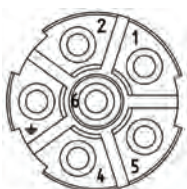
EPIC® POWER LS1

5+PE

view from contact side



male insert



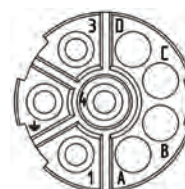
female insert

3+PE+4

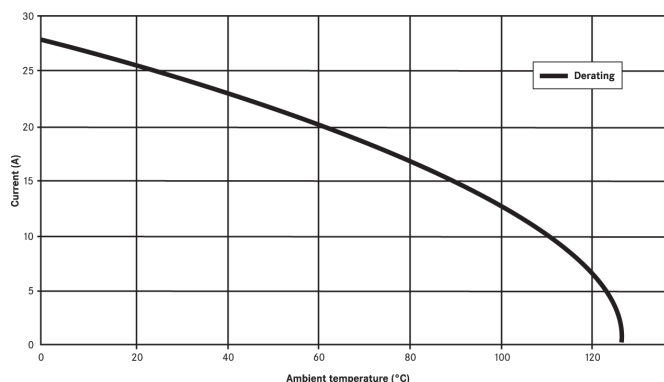
view from contact side



male insert



female insert

Basic and derating curve LS-1. 5+PE, 2,5 mm²
Female hyper boloid

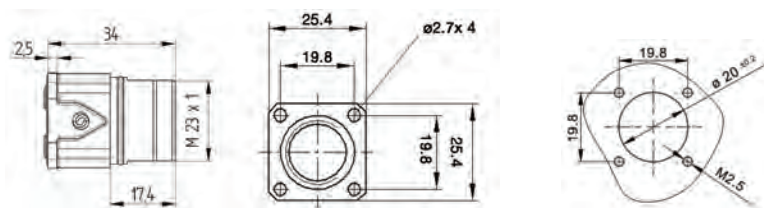
Contact size		Max. current according to UL	
mm²	AWG	5+PE	3+PE+4
2 mm contacts			
0.34	22	5A	5A
0.50	20	9A	9A
1.00	18	13A (11A*)	13A (11A*)
1.50	16	12A	12A
2.50	14	22A	22A
4.00	12	25A	26A
1 mm contacts			
up to 0.14	up to 26	—	1A
1.00	18	—	7A

* cUL

EPIC® POWER LS1 style A1
Straight panel mount inlet with male contacts

5+PE

3+PE+4



all dimensions are in mm

Contact configuration	Part number
5+PE	76003000
3+PE+4	76004000

Contact tools

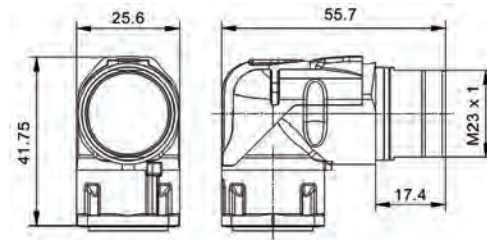
Crimp tool:
11148000Locator:
11148300Removal tool:
1 mm contacts: 75017400
2 mm contacts: 75017500

EPIC® POWER LS1 style A3

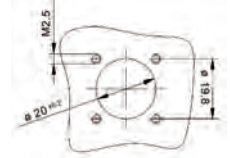
Angled rotatable panel mount inlet with male contacts

5+PE

3+PE+4



all dimensions are in mm



Contact configuration	Part number
5+PE	24420058
3+PE+4	24420056

Contact tools



Crimp tool:
11148000



Locator:
11148300



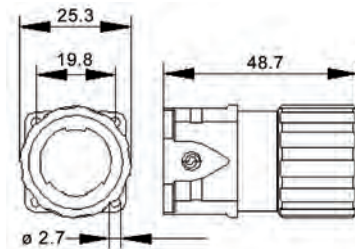
Removal tool:
1 mm contacts: 75017400
2 mm contacts: 75017500

EPIC® POWER LS1 style A6

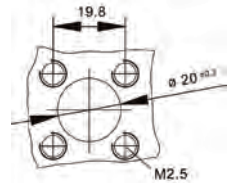
Panel mount receptacle with female contacts

5+PE

3+PE+4



all dimensions are in mm



Contact configuration	Part number
5+PE	76083000
3+PE+4	76084000

Contact tools



Crimp tool:
11148000



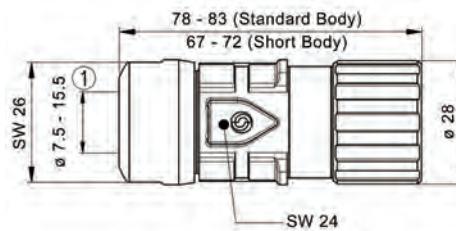
Locator:
11148300

EPIC® POWER LS1 style D6

Cable connector with female contacts

standard body

short body



all dimensions are in mm

Contact tools



Contacts
page 445



Crimp tool:
11148000



Locator:
11148300

Part number	Contact configuration	Wire size	Clamping range mm	Contacts included
Standard body				
76123000	5+PE	20 - 14 AWG	7.5 - 15.5	yes
76124000	3+PE+4	20 - 14 AWG	7.5 - 15.5	yes
44420091	5+PE	12 AWG	14 - 17	yes
44420089	3+PE+4	12 AWG	14 - 17	yes

Part number	Contact configuration	Wire size	Clamping range mm	Contacts included
44420090	5+PE	20 - 14 AWG	14 - 17	no
44420088	3+PE+4	20 - 14 AWG	14 - 17	no
Short body				
76123100	5+PE	20 - 14 AWG	7.5 - 15.5	yes
76124100	3+PE+4	20 - 14 AWG	7.5 - 15.5	yes

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for current information see: www.lappusa.com • www.lappcanada.com

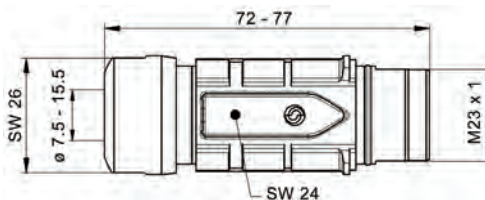
Courtesy of Steven Engineering, Inc - (800) 258-9200 - sales@steveng.com - www.steveng.com

EPIC® POWER LS1 style F6

Cable coupler with male contacts

5+PE

3+PE+4



all dimensions are in mm

Contact tools

Contacts
page 445Crimp tool:
11148000Locator:
11148300

Part number	Contact configuration	Wire size	Clamping range mm	Contacts included
76133000	5+PE	20 - 14 AWG	7.5 - 15.5	yes
76134000	3+PE+4	20 - 14 AWG	7.5 - 15.5	yes
44420094	5+PE	20 - 14 AWG	14 - 17	no

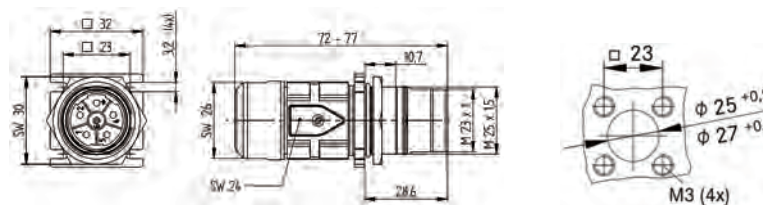
Part number	Contact configuration	Wire size	Clamping range mm	Contacts included
44420092	3+PE+4	20 - 14 AWG	14 - 17	no
44420095	5+PE	12 AWG	14 - 17	yes
44420093	3+PE+4	12 AWG	14 - 17	yes

EPIC® POWER LS1 style F7

Cable coupler with male contacts

5+PE

3+PE+4



all dimensions are in mm

Contact configuration	Part number	Clamping range mm
5+PE	76143000	7.5 - 15.5
3+PE+4	76144000	7.5 - 15.5

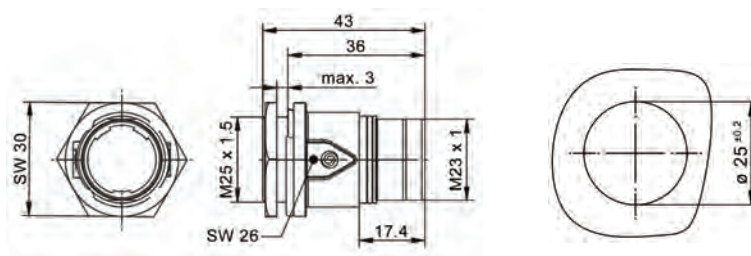
Contact tools

Crimp tool:
11148000Locator:
11148300**EPIC® POWER LS1 style G5**

Straight panel mount inlet with male contacts & locknut

5+PE

3+PE+4



all dimensions are in mm

Contact configuration	Part number
5+PE	76153000
3+PE+4	76154000

Contact tools

Crimp tool:
11148000Locator:
11148300Removal tool:
1 mm contacts: 75017400
2 mm contacts: 75017500

EPIC® POWER LS1 accessories

metal screw cap



Connector style	Part number
A1, A3, F6, F7, G5	75018310

plastic protection cap



Connector style	Part number
A6, D6	75007710
A1, F6, F7, G5	75007810

SILVYN® adapter



Size	Part number
M25 x 1.5	55001310

Adapter allows connection to jacketed cable run in SILVYN® conduit.

EPIC® POWER LS1 tools

crimp tool



Part number
11148000

locator



Part number
11148300

removal tool



Contact size	Part number
1 mm	75017400
2 mm	75017500

Replacement contacts

style A1, A3 & G5



style F6 & F7



style D6 & A6



Part number	Wire size		Contact type	Connector style	Strip length mm	Pack size
	mm²	AWG				
1 mm contacts						
74033001	0.14 - 1.0	26 - 18	male	A1, A3, G5	8	10
74033000	0.14 - 1.0	26 - 18	male	A1, A3, G5	8	100
74034001	0.14 - 1.0	26 - 18	male	F6, F7	6	10
74034000	0.14 - 1.0	26 - 18	male	F6, F7	6	100
74034501	0.14 - 1.0	26 - 18	female*	D6, A6	6.5	10
74034500	0.14 - 1.0	26 - 18	female*	D6, A6	6.5	100
2 mm contacts						
74033101	0.50 - 2.5	20 - 14	male	A1, A3, G5	7	10
74033100	0.50 - 2.5	20 - 14	male	A1, A3, G5	7	100
74034101	0.50 - 2.5	20 - 14	male	F6, F7	8	10
74034100	0.50 - 2.5	20 - 14	male	F6, F7	8	100
44429371	0.50 - 2.5	20 - 14	female*	D6, A6	8	10
44429370	0.50 - 2.5	20 - 14	female*	D6, A6	8	100
44420103	4.0	12	male	F6, F7	8	100
44420104	4.0	12	female*	D6	8	10
44420105	4.0	12	female*	D6	8	100

* Hyper boloid

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EPIC® SIGNAL M23

Rugged nickel-plated zinc connectors for power applications



Approvals



EPIC® SIGNAL M23 connectors are available in 11 housing styles that can accommodate 3 different insert keying positions. Inserts are offered in 7 contact configurations for mounting male or female, crimp, or solder contacts. Common to all arrangements are a rugged nickel-plated zinc body, plastic contact insulation body and sleeve, and gold-plated electrical contacts. Cable mounted arrangements also include an integral EMC shield ring and cable clamp and seal. The figure above shows the general construction of these connectors.

The connectors are offered with insert configurations for 6, 7, 8+1, 9, 12, 16 & 17 crimp or solder contacts in either a clockwise or counter-clockwise orientation. Used in combination, they connect one cable to another (cable coupler) or a cable to fixed wiring in a control enclosure or on a machine, instrument, encoder or servo motor.

Application advantage

- Rugged nickel-plated, die-cast zinc body
- Positive vibration protection for use with motor drives and moving assemblies
- Integral EMC cable gland provides strain relief, IP67/68 protection, and 360° shielding
- Coding rings ensure correct mating selection in multiple connector installations

Technical data

Number of contacts: 6, 7, 8+1, 9, 12, 16, 17

Temperature range: -25°C to +125°C

Rated voltage:

- 6, 7, 8+1 & 9 poles: 150V
- 12 & 16 poles: 100V
- 17 poles: 50V

Rated current:

- 6 & 7 poles: 14A
- 8+1, 9, 12, 16 & 17 poles: 7A

Impulse voltage:

- 6 & 7 poles: 4kV
- 8+1 poles: 2.5kV
- 9, 12 & 16 poles: 1.5kV
- 17 poles: 0.8kV

Protection class: IP67/68 (10h/1m)

- style A3: IP65

Wire gauge:

- crimp termination:
 - 1 mm contacts: 26 - 18 AWG (0.14 - 1.0 mm²)
 - 2 mm contacts: 18 - 14 AWG (1.0 - 2.5 mm²)
- solder termination:
 - 1 mm contacts: up to 18 AWG (1.0 mm²)
 - 2 mm contacts: up to 14 AWG (2.5 mm²)

Cable diameter: 7.0 - 13.5 mm

Mating cycles: 100 minimum

Material:

- housing: nickel-plated die-cast zinc
- style C2: nickel-plated copper alloy
- insulation body: PA, PBT, V-0 per UL 94
- contacts: gold-plated copper alloy
- gaskets & seals: FPM

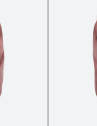
Contact resistance: < 4 mΩ

Approvals: DIN EN 61984
cRUus #E75770

EPIC® SIGNAL M23 inserts

Connector inserts will accept both male and female contacts. A complete connection requires one E-type insert and one P-type insert.

E-type inserts

Description	6 contacts	7 contacts	8+1 contacts	9 contacts	12 contacts	16 contacts	17 contacts
without contacts	73002766	44420154	73002742	73002730	73002718	73002706	73008500
with male solder contacts	73002768	44420156	73002744	73002732	73002720	73002708	73028500
with female solder contacts	73002770	44420158	73002746	73002734	73002722	73002710	73018500
insert configurations							
	2 mm contacts	2 mm contacts	1 & 2 mm contacts	1 mm contacts	1 mm contacts	1 mm contacts	1 mm contacts
clockwise numbered contacts viewed from the mating side							

12 & 17 pole inserts for PCB soldering are available on request (non-stock)

P-type inserts

Description	6 contacts	7 contacts	8+1 contacts	9 contacts	12 contacts	16 contacts	17 contacts
without contacts	73002760	44420148	73002736	73002724	73002712	73002700	73008000
with male solder contacts	73002762	44420150	73002738	73002726	73002714	73002702	73028000
with female solder contacts	73002764	44420152	73002740	73002728	73002716	73002704	73018000
insert configurations							
	2 mm contacts	2 mm contacts	1 & 2 mm contacts	1 mm contacts	1 mm contacts	1 mm contacts	1 mm contacts
counter-clockwise numbered contacts viewed from the mating side							

12 & 17 pole inserts for PCB soldering are available on request (non-stock)

EPIC® SIGNAL M23 contacts

Size AWG	mm ²	Description	Termination type	Part number
1 mm contacts				
26 - 18	0.14 - 1.0	gold male contacts	crimp	72400000
26 - 18	0.14 - 1.0	gold female contacts	crimp	74200600
26 - 18	0.14 - 1.0	HYP gold female contacts	crimp	74034500
up to 18	up to 1.0	gold male contacts	solder	72402000
up to 18	up to 1.0	gold female contacts	solder	72402600

Size AWG	mm ²	Description	Termination type	Part number
2 mm contacts				
18 - 14	1.0 - 2.5	gold male contacts	crimp	72401000
18 - 14	1.0 - 2.5	gold female contacts	crimp	72401600
up to 14	up to 2.5	gold male contacts	solder	72403000
up to 14	up to 2.5	gold female contacts	solder	72404000

EPIC® SIGNAL M23 style A1**Straight panel mount base**

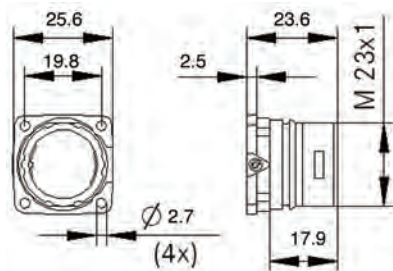
keying: N



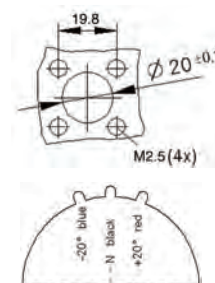
keying: -20°



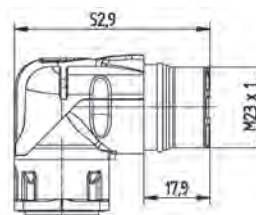
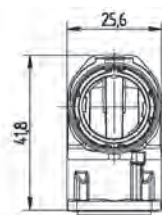
keying: +20°



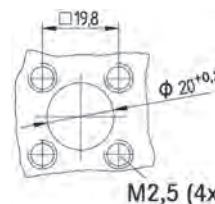
all dimensions are in mm



Keying	Part number
N	72004000
-20°	72004100
+20°	72004200

Contact toolsCrimp tool:
11148000Locator:
11148300Removal tool:
44420078**EPIC® SIGNAL M23 style A3****Angled panel mount base**

all dimensions are in mm



Part number
24420055

Contact toolsCrimp tool:
11148000Locator:
11148300Removal tool:
44420078**EPIC® SIGNAL M23 style D6****Cable connector**

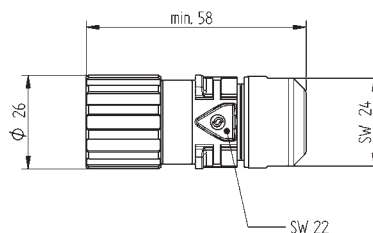
keying: N



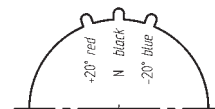
keying: -20°



keying: +20°



all dimensions are in mm



Keying	Part number
N	44420037
-20°	44420036
+20°	44420038

Contact toolsCrimp tool:
11148000Locator:
11148300

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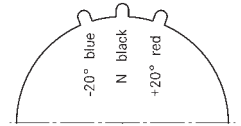
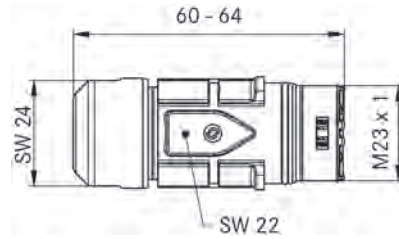
EPIC® SIGNAL M23 style F6

Cable coupler

keying: N

keying: -20°

keying: +20°



all dimensions are in mm

Keying	Part number
N	44420040
-20°	44420039
+20°	44420041

Contact tools



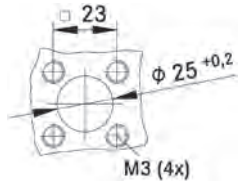
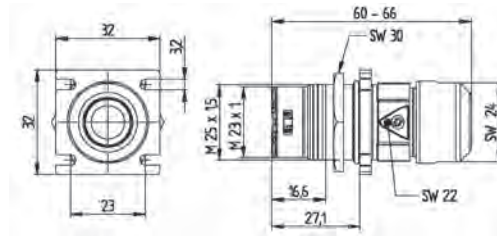
Crimp tool:
11148000



Locator:
11148300

EPIC® SIGNAL M23 style F7

Cable coupler with flange



all dimensions are in mm

Max. cable outer diameter	Part number
7 - 10 mm	44420009
9.5 - 13.5 mm	44420011

Contact tools



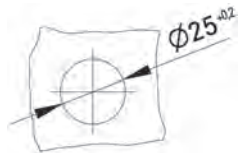
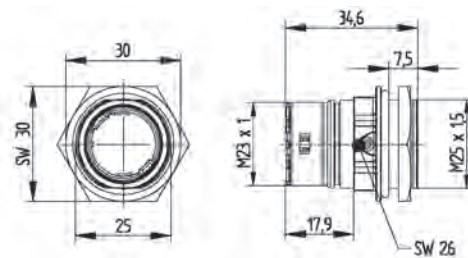
Crimp tool:
11148000



Locator:
11148300

EPIC® SIGNAL M23 style G5

Front wall mounting with locknut or M25 x 1.5 thread mount



all dimensions are in mm

Keying	Part number
N	44420046
-20°	44420044
+20°	44420048

Contact tools



Crimp tool:
11148000



Locator:
11148300



Removal tool:
44420078

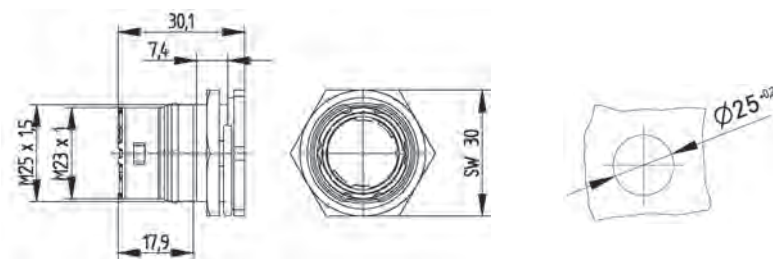
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EPIC® SIGNAL M23 style G6

Rear wall mounting



all dimensions are in mm

Part number

44420071

Contact tools



Crimp tool:
11148000



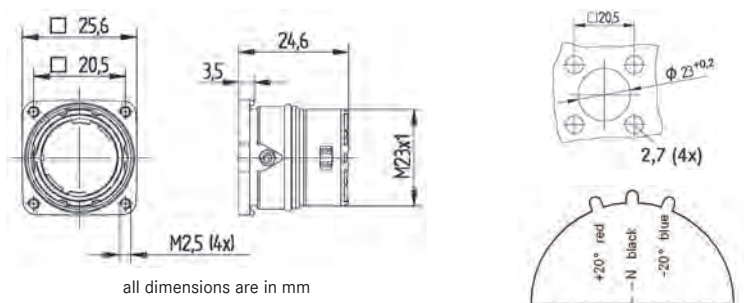
Locator:
11148300



Removal tool:
44420078

EPIC® SIGNAL M23 style B1

Rear wall mounting



all dimensions are in mm

Keying

Part number

N

44420024

-20°

44420022

+20°

44420026

Contact tools



Crimp tool:
11148000



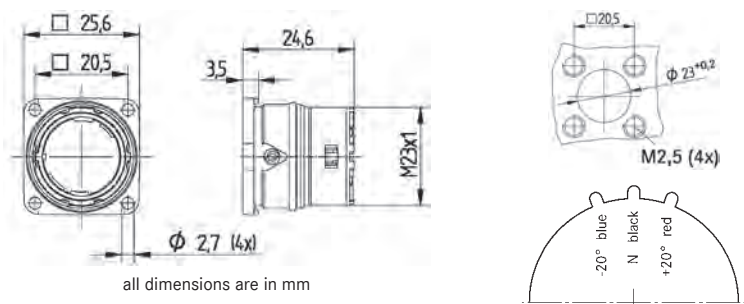
Locator:
11148300



Removal tool:
44420078

EPIC® SIGNAL M23 style B2

Rear wall mounting



all dimensions are in mm

Keying

Part number

N

44420050

-20°

44420052

+20°

44420035

Contact tools



Crimp tool:
11148000



Locator:
11148300

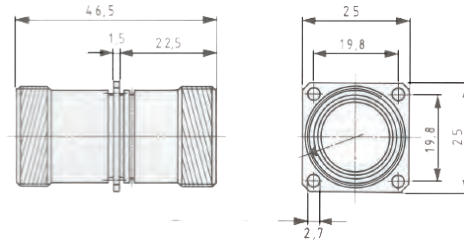


Removal tool:
44420078

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EPIC® SIGNAL M23 style C2

Panel mount feed-through



all dimensions are in mm

Number of contacts	Part number
12	00010108
17	00010521

Contact tools



Crimp tool:
11148000



Locator:
11148300



Removal tool:
44420078

EPIC® SIGNAL M23 accessories & tools

metal screw cap



Style 1

Style 2

plastic protection cap



SILVYN® adapter



Adapter allows connection to jacketed cable run in SILVYN® conduit.

removal tool



Style	Connector Style	Part number
1	A, F6, G	75018110
2	A, B, F7, O	75018010

Size	Part number
D6	75007710
A, B, F, G, O	75007810

Size	Part number
M20 x 1.5	55001312

Part number
44420078

EPIC® SIGNAL R3.0

High-density circular connectors for signal applications



The EPIC® SIGNAL R3.0 series of circular connectors is an extension to the EPIC® SIGNAL M23 series when additional contacts are required.

Parts are specified separately but sold assembled. Always use combination part number when ordering.

Technical data

Number of contacts:	21, 26	Mating cycles:	500 (higher mating cycles depends on the application)
Temperature range: - short term:	-40°C to +100°C up to +125°C	Insulation:	B: corresponds to equipment used primarily in precision engineering workshops, laboratories, testing centers, hospitals, etc.
Rated voltage:	24V AC / 60V DC	Material:	
Rated current:	7.5A	- housing:	nickel-plated copper alloy
Test voltage:	1.5 kV AC	- insulation body:	thermoplastic, V-0 per UL 94
Protection class:	IP65/67 when mated DIN 40050 (depending on cable gland used)	- contacts:	gold-plated copper alloy
Wire gauge - solder contacts:	up to 18 AWG (1 mm ²)	- gaskets:	neoprene
Cable diameter:	6.5 - 16 mm	Contact resistance:	< 3 mΩ

Combination part numbers

Always use combination part number when ordering.

Example:

20.2040AF (housing) + 40.200121 (insert) =

00009045 (combination)

Housing part number	21 contact inserts		26 contact inserts	
	male 40.200121	female 40.250121	male 40.200126	female 40.250126
	Connectors			
202040AF	00009045	00008749	00008899	00008829
202050AF	00008854	00008779	00008822	00008979
	Panel mount sockets			
202010AA	00008747	00008867	00008825	00008746
202020AA	00009082	00009135	—	00008978
202030AA	—	—	—	00009470
202060AA	00009371	00009057	00009894	00009005

EPIC® SIGNAL R3.0 accessories & tools

metal screw cap



flat gasket



sealing ring



assembly tool



Size	Part number
A	50201120

Size	Part number
A	50201203
B1, B2	50202203

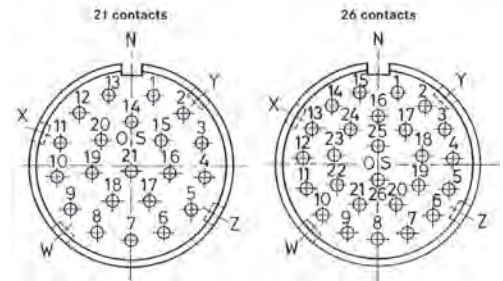
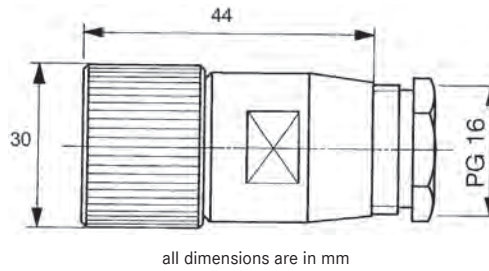
Size	Part number
G1	50206204

Size	Part number
D6, F6	50200800

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EPIC® SIGNAL R3.0 style D6

Cable connector; 202040AF



Number of contacts	Part number	
	male (E)	female (P)
21	00009045	00008749
26	00008899	00008829

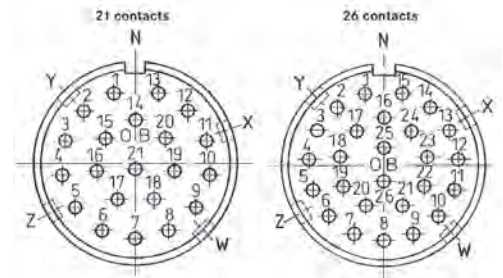
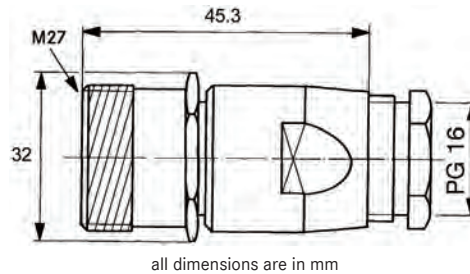
Complete the installation



Assembly tool:
50200800

EPIC® SIGNAL R3.0 style F6

Cable connector; 202050AF



Number of contacts	Part number	
	male (E)	female (P)
21	00008854	00008779
26	00008822	00008979

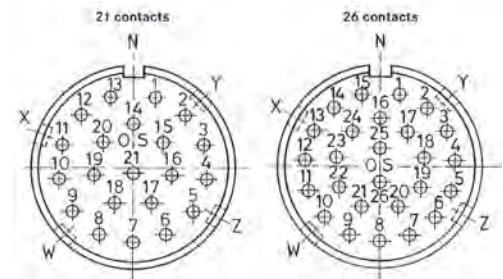
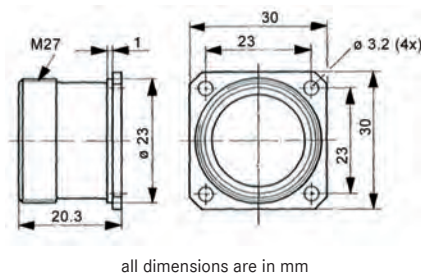
Complete the installation



Assembly tool:
50200800

EPIC® SIGNAL R3.0 style A

Front wall mounting; 202010AA



Number of contacts	Part number	
	male (E)	female (P)
21	00008747	00008867
26	00008825	00008746

Complete the installation



Screw cap:
50201120



Flat gasket:
50201203

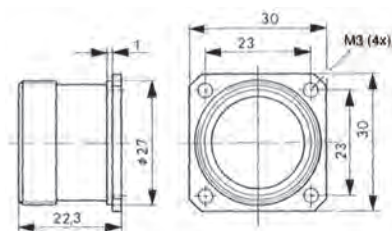
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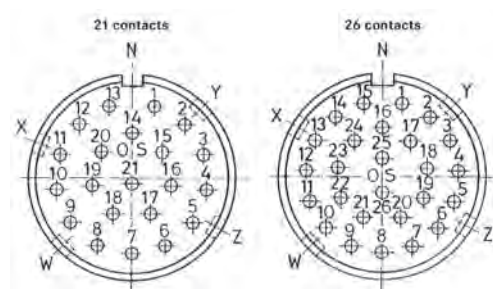
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EPIC® SIGNAL R3.0 style B1

Inside of panel mounting; 202020AA



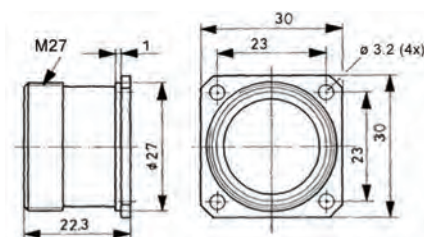
all dimensions are in mm



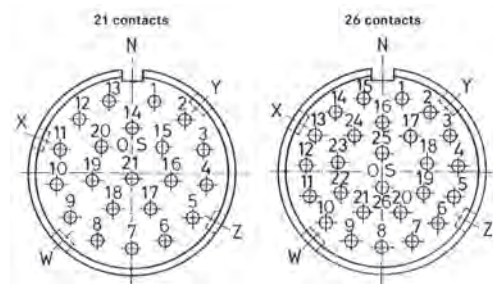
Number of contacts	Part number	
	male (E)	female (P)
21	00009082	00009135
26	—	00008978

Complete the installationFlat gasket:
50202203**EPIC® SIGNAL R3.0 style B2**

Inside of panel mounting; 202030AA



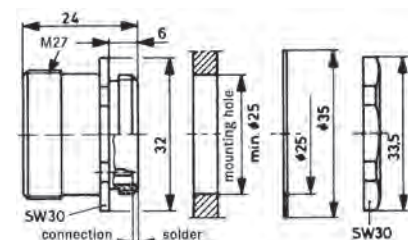
all dimensions are in mm



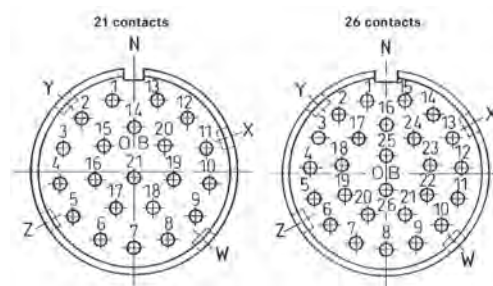
Number of contacts	Part number	
	male (E)	female (P)
21	—	—
26	—	00009470

Complete the installationFlat gasket:
50202203**EPIC® SIGNAL R3.0 style G1**

Inside of panel with locknut; 202060AA



all dimensions are in mm



Number of contacts	Part number	
	male (E)	female (P)
21	00009371	00009057
26	00009894	00009005

Complete the installationSealing ring:
50206204

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- 458 EPIC® pin & sleeve connectors**
- 460 Pin & sleeve construction**
- 462 EPIC® MULTIMAX installation**
- 463 EPIC® ULYSSE**
High-performance mechanical interlocks; IP66/67
- 464 EPIC® ALUPRES**
High-performance mechanical interlocks; IP55/67
- 465 North American standard**
- 466 International standard**

Dimensions

- 467 EPIC® MULTIMAX plugs (IP44)**
- 467 EPIC® MULTIMAX plugs (IP67)**
- 468 EPIC® CEE plugs (IP67)**
- 469 EPIC® CEE 90° plugs (IP44)**
- 469 EPIC® MULTIMAX connectors (IP44)**
- 469 EPIC® MULTIMAX connectors (IP67)**
- 470 EPIC® CEE connectors (IP67)**
- 471 EPIC® CEE angled panel mount receptacles (IP67)**
- 472 EPIC® CEE flush mount receptacles (IP44)**
- 473 EPIC® CEE flush mount receptacles (IP67)**
- 474 EPIC® CEE surface mount receptacles (IP44)**
- 475 EPIC® CEE 90° wall mount inlets (IP67)**
- 476 EPIC® CEE flush mount inlets (IP67)**
- 477 EPIC® ULYSSE mechanical interlocks (IP66/67)**
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Mining



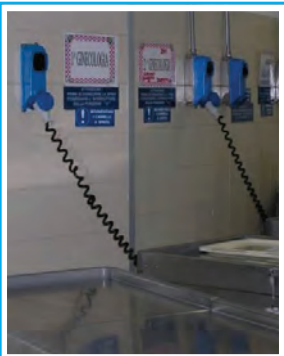
Airport



Commercial port



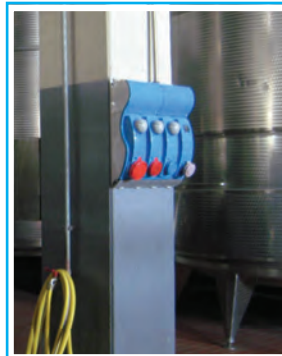
Hydroelectric power plant



Hospital



Railway tunnel



Food & beverage



Quarry

EPIC® CEE & MULTIMAX pin & sleeve connectors

EPIC® CEE



EPIC® MULTIMAX



EPIC® pin & sleeve connectors are designed to meet the power connectivity needs and requirements of your business. Whether you are designing machinery for that important international customer, specifying mobile power solutions on the factory floor, or planning outdoor power distribution systems, EPIC® pin & sleeve connectors and interlocked switched-socket outlets can provide a safe, cost-effective solution for your industrial wiring requirements.

EPIC® pin & sleeve connectors conform to IEC 60309-1 and -2 standards and are UL approved. North American devices are available for 20, 30, 60, and 100A. International-rated devices are available for 16, 32, 63, and 125A. Both North American and international devices are available in splash-proof (IP44) and watertight (IP67) configurations.

EPIC® ULYSSE interlocked socket outlets



The revolutionary, fully-patented ULYSSE range of interlocked switched-socket outlets offers several unique features:

- Outlets comes prewired, saving time and money.
- Outlets have been tested and rated to both IP66 and IP67, and provide an environmental seal from high-pressure jets of water and temporary immersion.
- Disconnect-rated cam switches allow direct switching of induction motor loads.
- Safety interlocks incorporate numerous safety precautions: power is prevented from being turned on unless a plug has been inserted in the outlet, plugs cannot be removed while the power is turned on, and the enclosure interior is prevented from being accessed while the device is energized.
- Double insulation eliminates electrical paths from the inside of the enclosure to the exterior.
- Outlets have a tough, reinforced thermoset plastic enclosure, which passes a 960°C glow wire test and provides outstanding resistance to extremes of heat and chemical agents.
- UL 508 approved as a manual motor starter.

Quality & certification

LAPP is ISO 9001-2000 certified, and as such all North American products carry the  mark and are certified for use in the US and Canada in accordance with UL 1682 & UL 1686 standards and CSA standard C22.2 No. 182.1-02. The UL file number for EPIC® pin & sleeve connectors is E223777. All products comply with IEC 60309-1, -2, and carry the  mark.

EPIC® pin & sleeve connectors

EPIC® MULTIMAX plugs



Protected straight plug with rapid wiring (IP44)

Characteristics: Patented click-lock housing eliminates screws and speeds up assembly. Patented self-locking cable grip is vibration-proof and eliminates external stress to the cable seal and contact terminals. Available in 20 & 30A North American configurations and 16 & 32A international versions. International 16, 32 & 63A connectors are rated IP67.

Uses: Indoor cable-to-cable connections & cable-to-power outlet connections

EPIC® CEE plugs



High-performance protected straight plug (IP44)

Characteristics: Nickel-plated rounded pins provide easy insertion. Incorporates a non-slip grip, cable entry with a screw-in cable gland, an internal saddle-clamp strain relief, and a very thick self-extinguishing body and grip. Available in 20 & 30A North American and 16 & 32A international configurations.

Uses: Indoor cable-to-cable connections & cable-to-power outlet connections



High-performance watertight straight plug (IP67)

Characteristics: Nickel-plated rounded pins provide easy insertion. Incorporates a non-slip grip, cable entry with a screw-in cable gland, an internal saddle-clamp strain relief, a very thick self-extinguishing body and grip, and a gasketed locking ring for watertight connections.

Uses: Indoor cable-to-cable connections & cable-to-power outlet connections



High-performance 90° angled protected plug (IP44)

Characteristics: Nickel-plated rounded pins provide easy insertion. Incorporates cable entry with a screw-in cable gland, an internal saddle-clamp strain relief, and a very thick self-extinguishing body and grip. Available in 20A North American and 16A international configurations.

Uses: Indoor cable-to-power outlet connections



High-performance 90° angled watertight plug (IP67)

Characteristics: Nickel-plated rounded pins provide easy insertion. Incorporates cable entry with a screw-in cable gland, an internal saddle-clamp strain relief, a very thick self-extinguishing body and grip, and a gasketed locking ring for watertight connections. Available in 20A North American and 16A international configurations.

Uses: Indoor wash-down/corrosive & heavy dust atmospheres; outdoor cable-to-power outlet connections

EPIC® CEE inlets



90° angled protected wall mounting appliance inlet (IP44)

Characteristics: Suitable for both wall mounting and mounting on machines. Incorporates a smooth upper wall for drilling a cable entry hole and a very thick self-extinguishing plug body and case. Available in 20 & 30A North American and 16 & 32A international configurations.

Uses: Indoor equipment-to-cable connections



90° angled watertight wall mounting appliance inlet (IP67)

Characteristics: Suitable for both wall mounting and mounting on machines. Incorporates a smooth upper wall for drilling a cable entry hole, a very thick self-extinguishing plug body and case, and a gasketed locking ring for watertight connections. Available in 20 & 30A North American and 16 & 32A International configurations.

Uses: Indoor wash-down/corrosive & heavy dust atmospheres; outdoor equipment-to-cable connections



High-performance watertight straight flush mounting appliance inlet (IP67)

Characteristics: Nickel-plated rounded pins provide easy insertion. Incorporates a thermoset plastic contact holder, a very thick self-extinguishing plug body, and a gasketed locking ring for watertight connections. Available in 60 & 100A North American and 63 & 125A international configurations.

Uses: Indoor wash-down/corrosive & heavy dust atmospheres, outdoor equipment-to-cable connections

EPIC® MULTIMAX connectors



Protected straight connector with rapid wiring (IP44)

Characteristics: Patented click-lock housing eliminates screws and speeds up assembly. Patented self-locking cable grip is vibration-proof and eliminates external stress to the cable seal and contact terminals. Available in 20 & 30A North American and 16 & 32A international configurations. International 16, 32 & 63A connectors are rated IP67.

Uses: Indoor cable-to-cable connections & cable-to-equipment inlet connections

EPIC® CEE connectors



High-performance watertight straight connector (IP67)

Characteristics: Solid brass rounded socket contacts provide easy insertion. Incorporates a very thick self-extinguishing body and non-slip grip, cable entry with a screw-in cable gland, an internal saddle-clamp strain relief, and a gasketed locking ring for watertight connections.

Uses: Indoor wash-down/corrosive & heavy dust atmospheres; outdoor cable-to-cable connections & cable-to-equipment inlet connections

EPIC® CEE panel mount receptacles



Straight flush mounting protected socket outlet (IP44)

Characteristics: Solid brass rounded socket contacts provide easy insertion. Incorporates a very thick self-extinguishing body and cover and non-aging elastomer gaskets. Available in 20 & 30A North American and 16 & 32A international configurations.

Uses: Indoor fixed power source-to-cable plug connections



Watertight angled flush mounting socket outlet (IP67)

Characteristics: Solid brass rounded socket contacts provide easy insertion. Incorporates a very thick self-extinguishing body and cover, non-aging elastomer gaskets, and a gasketed locking ring for watertight connections.

Uses: Indoor wash-down/corrosive & heavy dust atmospheres; outdoor fixed power source-to-cable plug connections



Angled wall mounting protected socket outlet (IP44)

Characteristics: Suitable for both wall mounting and mounting on machines. Solid brass rounded socket contacts provide easy insertion. Incorporates outer cable entry through screw-type cable gland and a very thick self-extinguishing body and cover. Available in 20 & 30A North American and 16 & 32A international configurations.

Uses: Indoor fixed power source-to-cable plug connections

EPIC® ULYSSE mechanical interlock



Wall mounting interlocked socket outlet with fuse holder base (IP66/67)

Characteristics: Heavy duty reinforced thermoset plastic modular enclosure for superior heat & chemical resistance. Incorporates a heavy duty safety interlocked disconnect-rated switch for direct switching of motor loads. Available in 20, 30 & 60A North American and 16, 32 & 63A international configurations. UL 508 approved as a manual motor controller.

Uses: Indoor wash-down/corrosive & heavy dust atmospheres; outdoor fixed source disconnect-to-cable plug connections

EPIC® ALUPRES mechanical interlock



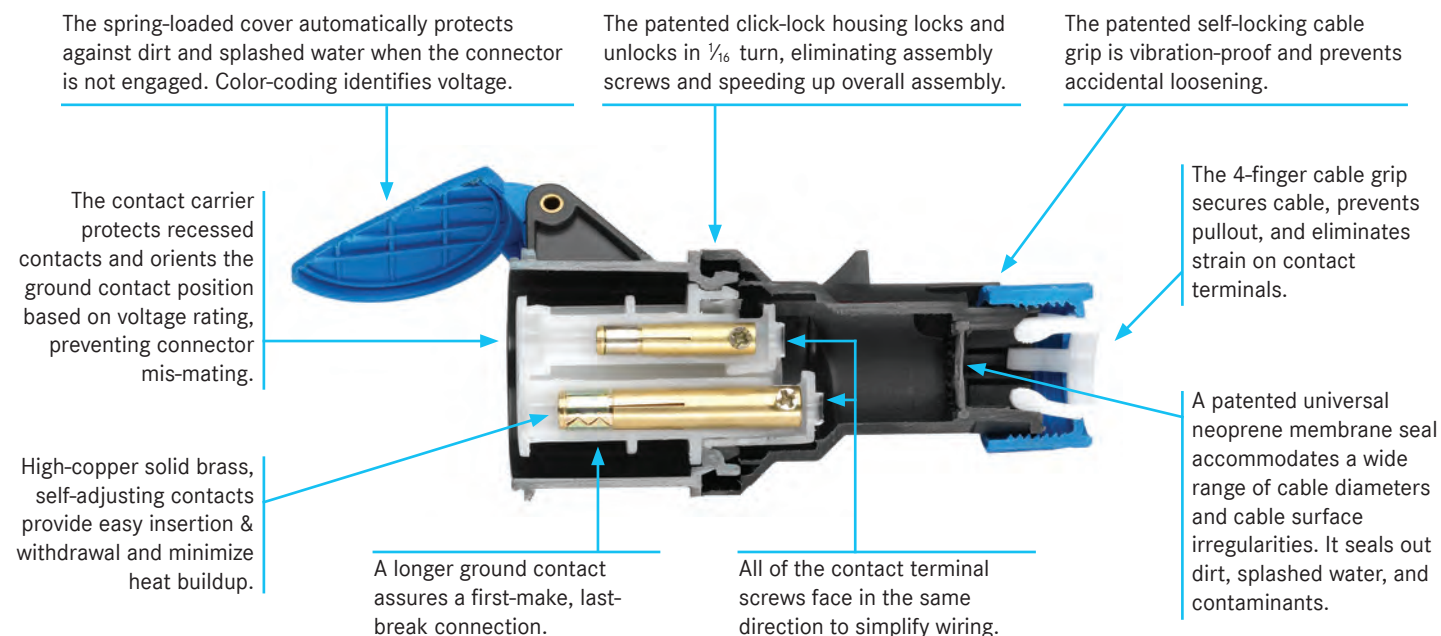
Wall mounting interlocked socket outlet in aluminum alloy (IP55/67)

Characteristics: Heavy duty aluminum alloy modular enclosure for superior strength and heat resistance. Incorporates a heavy duty safety interlocked disconnect-rated switch for direct switching of motor loads. IP67 for 20 & 30A outlets (16 & 32 A international) and IP55 for 60A outlets (63A international). UL 508 approved as a manual motor controller.

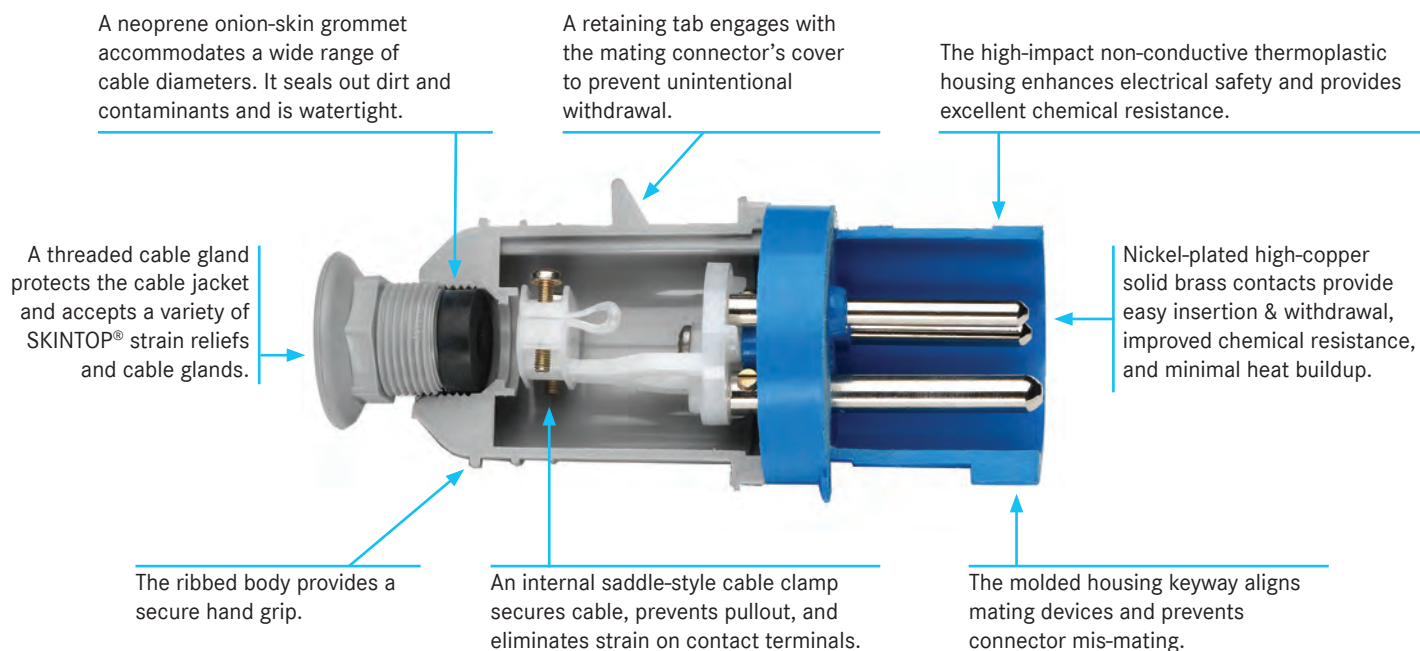
Uses: Indoor wash-down/corrosive & heavy dust atmospheres; outdoor fixed source disconnect-to-cable plug connections

Pin & sleeve construction

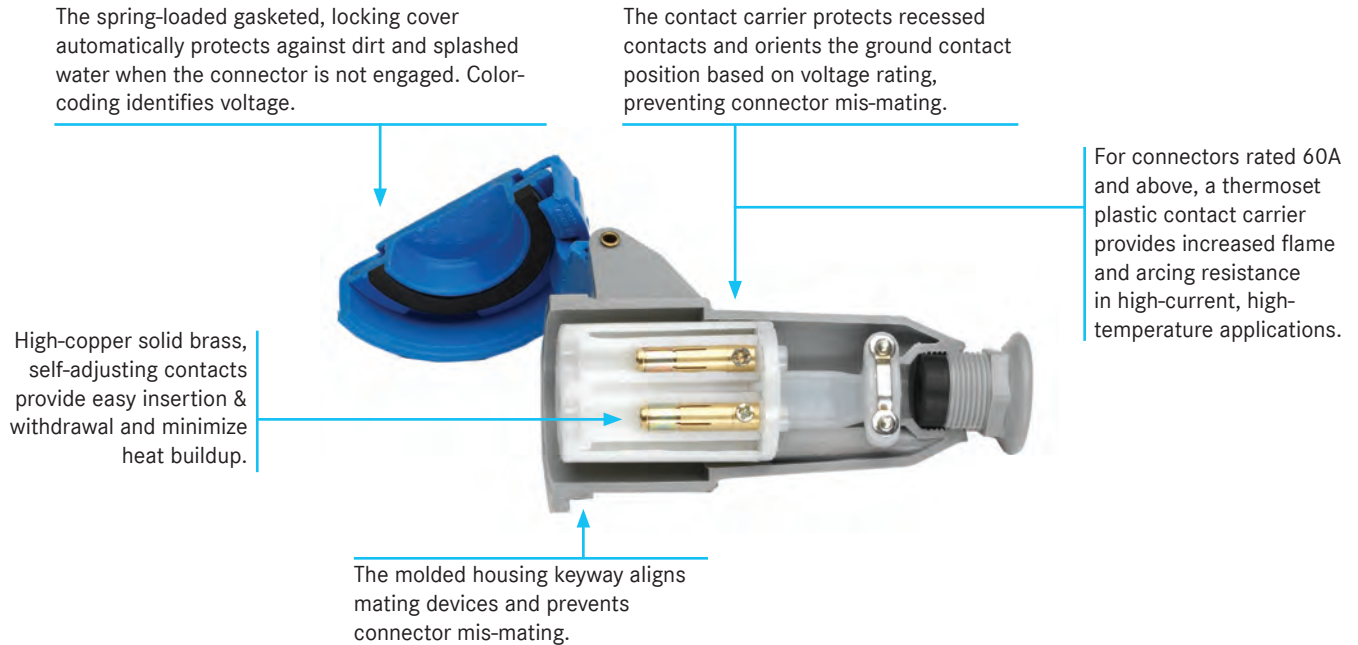
MULTIMAX IP44 connectors



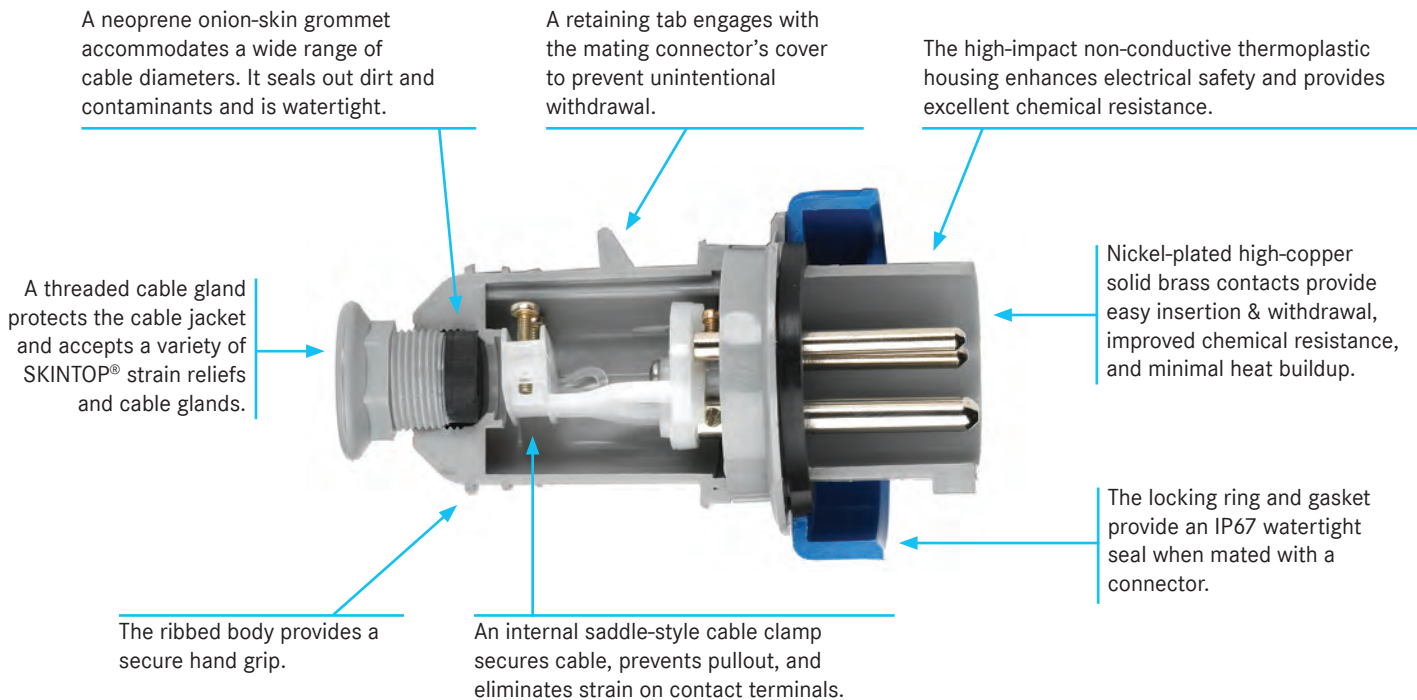
CEE IP44 plugs



CEE IP67 connectors

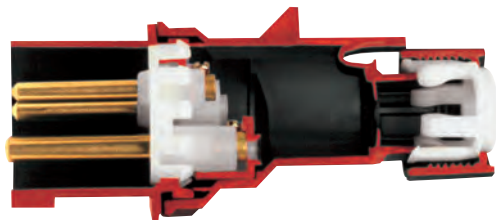


CEE IP67 plugs



EPIC® MULTIMAX installation

Assembly In 20 seconds



Snaplock function provides speed in assembling

The grip is assembled without any tools with $\frac{1}{16}$ turn.

Guaranteed cable clamping over time

The cord grip and shade ring locking device prevent accidental cable loosening.

Protection rating even with the cable stressed

The radial clamping cord grip is located external to the universal membrane seal and does not compromise the seal's environmental rating.

1. Insert the prepared cable into the grip.



2. Tighten the terminal screws, which are unscrewed in advance and positioned on the same side.



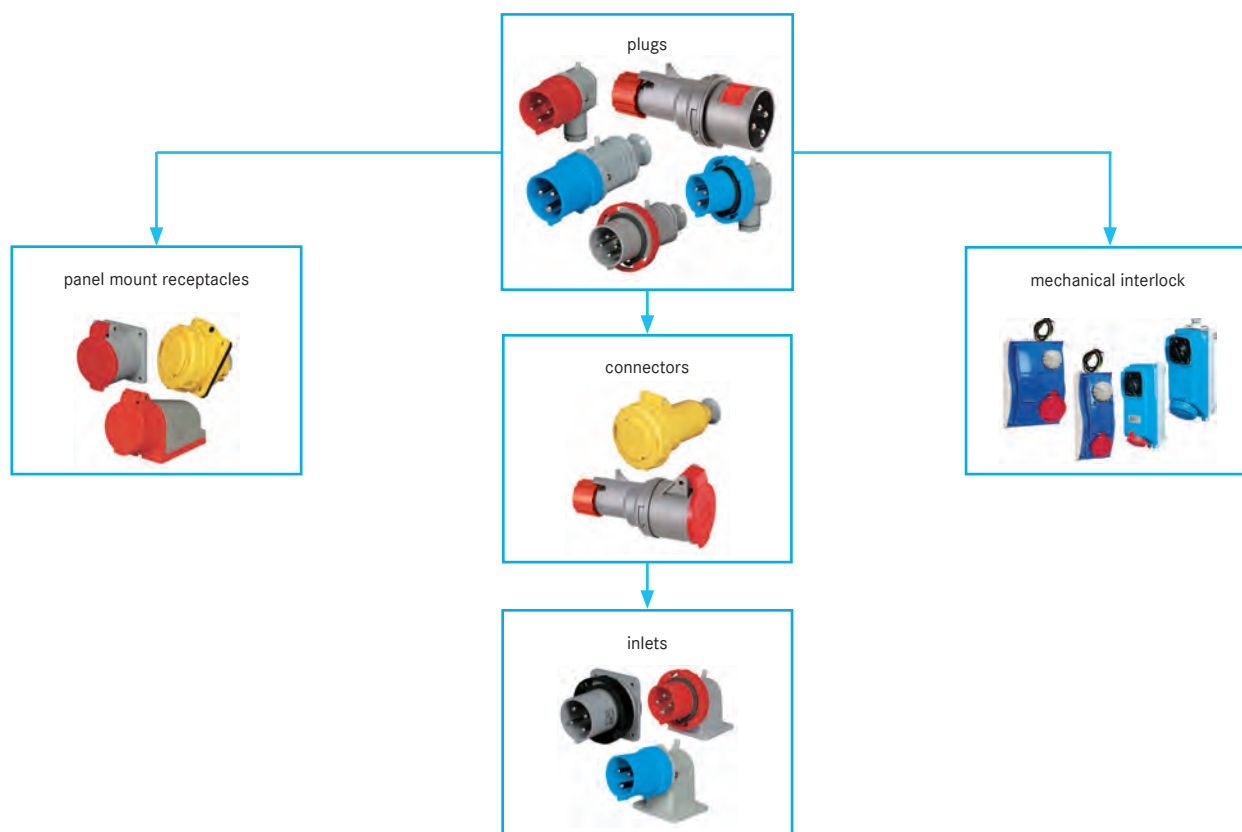
3. Close the grip until it clicks ($\frac{1}{16}$ turn).



4. Lock the cable by turning the shade ring until it is locked.



Connector mating configurations



EPIC® ULYSSE

High-performance mechanical interlocks; IP66/67

The EPIC® ULYSSE series of interlocked switched-socket outlets are ideal for indoor and outdoor power service on/off control. The range consists of North American (20, 30 & 60A) and international (16, 32 & 63A) models. These interlocked outlets can be mounted individually by using the integral mounting feet or as part of a multiple-unit distribution board assembly by utilizing the patented quick-mount support plate and a selection of wire connection junction boxes. The rugged, double-insulated thermoset plastic enclosure, internal fuse holder, and zinc-plated steel interlocking mechanism contribute to long-term operator safety. The rotary switches used in the EPIC® ULYSSE series socket

outlets are AC23A-AC3 category devices suitable for direct-switching of motor and other highly inductive electrical loads. They have a conditional short circuit rating of 10,000A. EPIC® ULYSSE devices meet or exceed compliance with the following standards:

- CEI EN 60309 • CEI EN 60947 • CEI EN 60529
- CEI EN 60742 • IEC 60309 • IEC 947
- IEC 529 • IEC 742 • UL 1682
- UL 1686 • UL 508

Application advantage

- **Quick & easy installation:** Used individually, surface mounting is quickly accomplished using the four integral mounting feet. A patented quick-mount support plate (optional) allows multiple units to be assembled into a distribution panel. All devices are provided pre-wired with stripped and numbered cables 70 cm long, eliminating the need to open the enclosure. This reduces installation time by up to 30%.
- **Thermoset plastic enclosure:** The use of low smoke, low toxicity, halogen-free reinforced thermoset plastic ensures the highest possible dimensional stability and resistance to heat, chemical, and mechanical stress. A double-insulated design ensures that no electrical path exists from internal components to the outside of the enclosure.
- **Double environmental protection (watertight):** All EPIC® ULYSSE devices carry both IP66 and IP67 protection ratings for watertight service against violent water jets as well as accidental immersion.
- **Mechanical interlock:** The zinc-plated steel interlock mechanism guarantees electrical operation only when a plug is inserted into the outlet. Plug removal is blocked while power is turned on, eliminating arc-flash hazards
- **Ergonomic control with lockout:** The unique semi-spherical control knob is easily operated even with a gloved hand. To prevent unauthorized operation, the knob can be padlocked in either the “on” or “off” position.
- **Direct motor control:** Use of AC23A-AC3 category cam switches allows direct switching of motor and other highly inductive electrical loads and have a conditional short circuit rating of 10,000A. UL 508 approved as a manual motor controller.

Safety features

EPIC® ULYSSE devices are made of reinforced thermoset plastic. These products are ideal for outdoor applications. Their rugged industrial design ensures high impact resistance (20 joules) at both low and high temperature extremes, electrical insulation, outstanding resistance to extremes of heat and fire (960°C glow wire test; self-extinguishing in acc. with UL 94: V-0), as well as resistance to chemical agents, humidity, prolonged UV exposure, and atmospheric agents. Fuse holders and receptacle contacts are finger safe.

EPIC® ULYSSE devices use standard IEC-60269 cylindrical fuses. Fuse selection is application-specific and typically based on providing short circuit line protection (gL-gG fast-acting type) or motor protection (aM slow-acting type). Consult with a fuse manufacturer for proper selection and to place an order. LAPP does not carry fuses. The table here shows general fuse information for each EPIC® ULYSSE outlet size. Order one fuse for each outlet pole.

Recommended applications

Manufacturing facilities; food processing; breweries & distilleries; amusement parks; marinas; ski facilities; machine power distribution; boiler room locations

Specifications

	North American	International
Number of contacts	3, 4, 5	3, 4, 5
Contact configurations	1+N+PE, 2+PE, 3+PE, 3+N+PE	2+PE, 3+PE, 3+N+PE
Rated voltage (others available)	125V, 250V, 480V, 120/208V	110-130V, 200-250V, 380-415V
Rated current	20A, 30A, 60A	16A, 32A, 63A
Switched category	AC23A	AC23A
Wire gauge 20/16A: 30/32A: 60/63A:	12 AWG 8 AWG 6 AWG	12 AWG 8 AWG 6 AWG
Cable OD range	11 - 25 mm	11 - 25 mm
Protection class	IP66 & IP67	IP66 & IP67
Housing material	UV-stabilized thermoset plastic	UV-stabilized thermoset plastic
Flammability	self-extinguishing: V-0 per UL 94	self-extinguishing: V-0 per UL 94
Standards of conformity	UL 508, UL 1682, UL 1686	IEC 60309-1 and -2, IEC 60529, IEC60947-3
Approvals	CE, cULus, E330239	CE, IMQ

Fuses

EPIC® ULYSSE devices use standard IEC-60209 cylindrical fuses. Fuse selection is application-specific and typically based on providing short circuit line protection (gL-gG fast-acting type) or motor protection (aM slow-acting type). Consult with a fuse manufacturer for proper selection and to place an order. LAPP does not carry fuses.

The table here shows general fuse information for each device outlet size. Order one fuse for each outlet pole.

Device rating	Fuse size A x B mm	Fuse current	Fuse voltage
20/16A	10 x 38	0.5 - 32A	500V
30/32A	14 x 51	2 - 50A	500V
63A	22 x 58	16 - 100A	500V

EPIC® ALUPRES

High-performance mechanical interlocks; IP55/67

The EPIC® ALUPRES series of interlocked switched-socket outlets are ideal for indoor and outdoor power service on/off control. The range consists of North American (20, 30 & 60A) and international (16, 32 & 63A) models. These devices can be mounted individually by using the integral mounting tabs or as a part of a multiple-unit distribution board assembly. The rugged aluminum alloy enclosure and zinc-plated steel interlocking mechanism contribute to long service life and long-term operator safety. The rotary switches used in EPIC® ALUPRES are AC23A-AC3 category devices suitable for direct switching of motor and other

highly inductive electrical loads. They have a conditional short circuit rating of 10,000A. EPIC® ALUPRES devices comply with the following standards:

- CEI EN 60309
- CEI EN 60947
- CEI EN 60529
- IEC 60309
- IEC 947
- IEC 529
- IEC 742
- UL 1682
- UL 1686
- UL 508

Application advantage

- **Quick & easy installation:** Used individually, surface mounting is quickly accomplished using the four integral mounting tabs. An optional support plate allows multiple units to be assembled into a distribution panel.
- **Rugged aluminum alloy enclosure:** The powder-painted aluminum alloy enclosure provides excellent resistance to heat and corrosive agents. Resistance to impact and mechanical stress is over 50% greater than outlets constructed using standard thermoplastics. It is made with low smoke, low toxicity, and halogen-free materials.
- **Environmental protection (watertight):** 20/16A & 30/32A devices are IP67 rated for watertight service against violent water jets. The 60/63A devices are IP55 rated for watertight service in lower pressure wash-down applications.
- **Mechanical interlock:** The zinc-plated steel interlock mechanism guarantees electrical operation only when a plug is inserted into the outlet. Plug removal is blocked while power is turned on, eliminating arc-flash hazard.
- **Direct motor control:** Use of AC23A-AC3 category cam switches allows direct switching of motor and other highly inductive electrical loads and has a conditional short circuit rating of 10,000A.



Construction

EPIC® ALUPRES devices are made of a die-cast aluminum alloy and are powder-painted with polymerized non-scratch paint at 180°C. This makes them ideally suited for abrasive environments. Their rugged industrial design ensures high impact resistance (30 joules) at both low and high temperature extremes, and outstanding resistance to extremes of fire and heat. A special chrome treatment applied prior to painting ensures protection from corrosion.

Recommended applications

Steelworks; foundries; rolling mills; tunnels; abrasive areas near metal removal machinery and carpentry machines

Motor horsepower & full load

Switch outlet maximum current / power		
20A / 10kW	30A / 15kW	60A / 30kW
120V, 1ph HP/FLA		
1.5 hp/20A	2 hp/24A	5 hp/56A
240V, 1ph HP/FLA		
3 hp/17A	5 hp/28A	10 hp/50A
240V, 3ph HP/FLA		
5 hp/15.2A	10 hp/28A	15 hp/42A
480V, 3ph HP/FLA		
10 hp/14A	15 hp/21A	30 hp/40A

Horsepower rating per UL 508 approval listing for ULYSSE & ALUPRES devices: Manual Motor Controller. FLA per NFPA 70 Table 430.148 (single phase AC motors) and Table 420.150 (three phase AC motors).

Specifications

	North American	International
Number of contacts	3, 4, 5	3, 4, 5
Contact configurations	1+N+PE, 2+PE, 3+PE, 3+N+PE	2+PE, 3+PE, 3+N+PE
Rated voltage (others available)	125V, 250V, 480V, 120/208V	110-130V, 200-250V, 380-415V
Rated current	20A, 30A, 60A	16A, 32A, 63A
Switched category	AC23A	AC23A
Wire gauge 20/16A: 30/32A: 60/63A:	12 AWG 8 AWG 6 AWG	12 AWG 8 AWG 6 AWG
Cable OD range (entry flange w/gland)	depending on entry flange selection: 9-20 mm (20/16A), 9-26 mm (all others)	depending on entry flange selection: 9-20 mm (20/16A), 9-26 mm (all others)
Protection class	IP67 (20/16A & 30/32A), IP55 (60/63A)	IP67 (20/16A & 30/32A), IP55 (60/63A)
Housing material	die-cast aluminum alloy	die-cast aluminum alloy
Flammability	self-extinguishing: V-0 per UL 94	self-extinguishing: V-0 per UL 94
Standards of conformity	UL 508, UL 1682, UL 1686	IEC 60309-1 and -2, IEC 60529, IEC60947-3
Approvals	CE, cULus, E330239	CE, IMQ

North American standard

Dimensional drawings can be found on the indicated pages. Circuit wiring diagrams can be found on page 479. Additional configurations are available: see www.lappusa.com for a complete listing.

Complete the installation



Covers for
IP67 plugs
page 479

Approvals



IP44 splash-proof connectors



Voltage / current rating	# of poles	Ground- clock position	Color code	MULTIMAX plug	CEE 90° plug	MULTIMAX connector	CEE flush mount receptacle	CEE surface mount receptacle	ULYSSE mechanical interlock	ALUPRES mechanical interlock
20A										
125	1+N+PE	4	Yellow	700124FX	475202FX	720124FX	431611FX	471262FX	400124FX	460124FX
250	2+PE	6	Blue	700126FX	475302FX	720126FX	431622FX	471362FX	400126FX	460126FX*
3Ø 250	3+PE	9	Blue	700139FX	475312FX	720139FX	441622FX	471372FX	400139FX	460139FX*
3Ø 480	3+PE	7	Red	700137FX	475512FX	720137FX	441650FX	471572FX	400137FX	460137FX*
30A										
125	1+N+PE	4	Yellow	700224FX	—	720224FX	433211FX	471266FX	400224FX	460224FX
250	2+PE	6	Blue	700226FX	—	720226FX	433222FX	471366FX	400226FX	460226FX
3Ø 250	3+PE	9	Blue	700239FX	—	720239FX	443222FX	471376FX	400239FX	460239FX
3Ø 480	3+PE	7	Red	700237FX	—	720237FX	443250FX	471576FX	400237FX	460237FX
3Ø Y 120/208	3+N+PE	9	Blue	700249FX	—	720249FX	453222FX	471386FX	400249FX	460249FX
Connector dimensions				page 467	page 469	page 469	page 472	page 474	page 477	page 478

* Includes flat flange & NPT 1/2" gland

IP67 watertight connectors



Voltage / current rating	# of poles	Ground- clock position	Color code	CEE plug	CEE connector	CEE angled panel mount receptacle	CEE flush mount receptacle	CEE wall mount inlet	CEE flush mount inlet	ULYSSE mechanical interlock*	ALUPRES mechanical interlock*
20A											
125	1+N+PE	4	Yellow	477203FX	473203FX	471263FX	—	476203FX	—	400124FX	460124FX
250	2+PE	6	Blue	477303FX	473303FX	471363FX	—	476303FX	—	400126FX	460126FX*
3Ø 250	3+PE	9	Blue	477313FX	473313FX	471373FX	—	476313FX	—	400139FX	460139FX*
3Ø 480	3+PE	7	Red	477513FX	473513FX	471573FX	—	476513FX	—	400137FX	460137FX*
30A											
125	1+N+PE	4	Yellow	477206FX	473206FX	471267FX	—	476206FX	—	400224FX	460224FX
250	2+PE	6	Blue	477306FX	473306FX	471367FX	—	476306FX	—	400226FX	460226FX
3Ø 250	3+PE	9	Blue	477316FX	473316FX	471377FX	—	476316FX	—	400239FX	460239FX
3Ø 480	3+PE	7	Red	477516FX	473516FX	471577FX	—	476516FX	—	400237FX	460237FX
3Ø Y 120/208	3+N+PE	9	Blue	477326FX	473326FX	471387FX	—	476326FX	—	400249FX	460249FX
60A											
3Ø 250	3+PE	9	Blue	477317FX	473317FX	546322FX	446322FX	—	476317FX	408339FX	460339FX**
3Ø 480	3+PE	7	Red	477517FX	346350FX	546350FX	446350FX	—	476517FX	408337FX	460337FX**
3Ø 120/208	3+N+PE	9	Blue	477327FX	473327FX	556322FX	456322FX	—	476327FX	408349FX	460349FX**
100A											
3Ø 250	3+PE	9	Blue	477318FX	473318FX	549322FX	449322FX	—	476318FX	—	—
3Ø 480	3+PE	7	Red	249550FX	349550FX	549550FX	449550FX	—	749550FX	—	—
3Ø 120/208	3+N+PE	9	Blue	477328FX	473328FX	559322FX	459322FX	—	476328FX	—	—
Connector dimensions				page 468	page 470	page 471	page 473	page 475	page 476	page 477	page 478

* Includes flat flange & NPT 1/2" gland

** Rated IP55

International standard

Dimensional drawings can be found on the indicated pages. Circuit wiring diagrams can be found on page 479. Additional configurations are available: see www.lappusa.com for a complete listing.

Complete the installation



Covers for
IP67 plugs
page 479

Approvals



IP44 splash-proof connectors



Voltage / current rating	# of poles	Ground- clock position	Color code	MULTIMAX plug	MULTIMAX connector	CEE flush mount receptacle	CEE surface mount receptacle	ULYSSE mechanical interlock	ALUPRES mechanical interlock
16A									
110 - 130	2+PE	4	Yellow	700124	720124	431611	471262	400124	460124*
200 - 250	2+PE	6	Blue	700126	720126	431622	471362	400126	460126*
200 - 250	3+PE	9	Blue	700139	720139	441622	471372	400139	460139*
380 - 415	3+PE	6	Red	700136	720136	441638	471472	400136	460136*
200 - 250	3+N+PE	9	Blue	700149	720149	451622	471332	400149	—
380 - 415	3+N+PE	6	Red	700146	720146	451638	471482	400146	460146*
32A									
110 - 130	2+PE	4	Yellow	700224	720224	433211	471266	400224	460224
200 - 250	2+PE	6	Blue	700226	720226	433222	471366	400226	460226
200 - 250	3+PE	9	Blue	700239	720239	443222	471376	400239	460239
380 - 415	3+PE	6	Red	700236	720236	443238	471476	400236	460236
200 - 250	3+N+PE	9	Blue	700249	720249	453222	471386	400249	460249
380 - 415	3+N+PE	6	Red	700246	720246	453238	471486	400246	460246
Connector dimensions				page 467	page 469	page 472	page 474	page 477	page 478

* Includes flat flange & NPT 1/2" gland

IP67 watertight connectors



Voltage / current rating	# of poles	Ground- clock position	Color code	MULTIMAX plug	MULTIMAX connector	CEE plug	CEE connector	CEE angled panel mount receptacle	CEE flush mount receptacle	CEE wall mount inlet	CEE flush mount inlet	ULYSSE mechanical interlock	ALUPRES mechanical interlock
16A													
110 - 130	2+PE	4	Yellow	710124	730124	477203	473203	471263	—	476203	—	400124	460124*
200 - 250	2+PE	6	Blue	710126	730126	477303	473303	471363	—	476303	—	400126	460126*
200 - 250	3+PE	9	Blue	—	—	477313	473313	471373	—	476313	—	400139	460139*
380 - 415	3+PE	6	Red	710136	730136	477413	473413	471473	—	476413	—	400136	460136*
200 - 250	3+N+PE	9	Blue	—	—	477323	473323	471333	—	476323	—	400149	—
380 - 415	3+N+PE	6	Red	710146	730146	477423	473423	471483	—	476423	—	400146	460146*
32A													
110 - 130	2+PE	4	Yellow	710224	730224	477206	473206	471267	—	476206	—	400224	460224
200 - 250	2+PE	6	Blue	710226	730226	477306	473306	471367	—	476306	—	400226	460226
200 - 250	3+PE	9	Blue	—	—	477316	473316	471377	—	476316	—	400239	460239
380 - 415	3+PE	6	Red	710236	730236	477416	473416	471477	—	476416	—	400236	460236
200 - 250	3+N+PE	9	Blue	—	—	477326	473326	471387	—	476326	—	400249	460249
380 - 415	3+N+PE	6	Red	710246	730246	477426	473426	471487	—	476426	—	400246	460246
63A													
200 - 250	3+PE	9	Blue	—	—	477317	473317	546322	446322	—	476317	400339	460339**
380 - 415	3+PE	6	Red	710336	730336	477417	346338	546338	446338	—	746338	400336	—
200 - 250	3+N+PE	9	Blue	—	—	477327	473327	556322	456322	—	476327	400349	460349**
380 - 415	3+N+PE	6	Red	710346	730346	477427	356338	556338	456338	—	756338	400346	—
125A													
200 - 250	3+PE	9	Blue	—	—	477318	473318	549322	449322	—	476318	—	—
380 - 415	3+PE	6	Red	—	—	249538	349538	549538	449538	—	749538	—	—
200 - 250	3+N+PE	9	Blue	—	—	477328	473328	559322	459322	—	476328	—	—
380 - 415	3+N+PE	6	Red	—	—	259538	359538	559538	459538	—	759538	—	—
Connector dimensions				page 467	page 469	page 468	page 470	page 471	page 473	page 475	page 476	page 477	page 478

* Includes flat flange & NPT 1/2" gland

** Rated IP55

EPIC® MULTIMAX plugs (IP44)



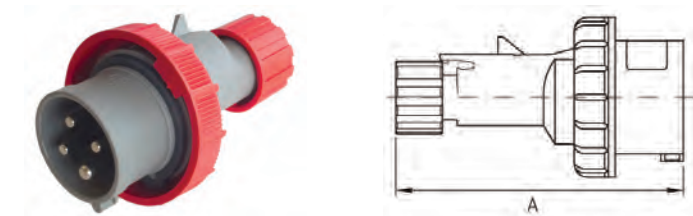
North American standard

Part number	Number of wires	Voltage / current rating	Number of poles	Ground-clock position	Color code	A in
20A						
700124FX	3	125	1+N+PE	4		5.00
700126FX	3	250	2+PE	6		
700139FX	4	3Ø 250	3+PE	9		5.28
700137FX	4	3Ø 480	3+PE	7		
30A						
700224FX	3	125	1+N+PE	4		6.06
700226FX	3	250	2+PE	6		
700239FX	4	3Ø 250	3+PE	9		
700237FX	4	3Ø 480	3+PE	7		
700249FX	5	3Ø Y 120/208	3+N+PE	9		6.81

International standard

Part number	Number of wires	Voltage / current rating	Number of poles	Ground-clock position	Color code	A in
16A						
700124	3	110 - 130	2+PE	4		5.00
700126	3	200 - 250	2+PE	6		
700139	4	200 - 250	3+PE	9		5.28
700136	4	380 - 415	3+PE	6		
700149	5	200 - 250	3+N+PE	9		5.59
700146	5	380 - 415	3+N+PE	6		
32A						
700224	3	110 - 130	2+PE	4		6.06
700226	3	200 - 250	2+PE	6		
700239	4	200 - 250	3+PE	9		
700236	4	380 - 415	3+PE	6		
700249	5	200 - 250	3+N+PE	9		6.81
700246	5	380 - 415	3+N+PE	6		

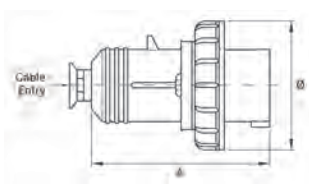
EPIC® MULTIMAX plugs (IP67)



International standard

Part number	Number of wires	Voltage / current rating	Number of poles	Ground-clock position	Color code	A in
16A						
710124	3	110 - 130	2+PE	4	Yellow	5.31
710126	3	200 - 250	2+PE	6	Blue	
710136	4	380 - 415	3+PE	6	Red	5.52
710146	5	380 - 415	3+N+PE	6	Red	5.91
32A						
710224	3	110 - 130	2+PE	4	Yellow	6.50
710226	3	200 - 250	2+PE	6	Blue	
710236	4	380 - 415	3+PE	6	Red	
710246	5	380 - 415	3+N+PE	6	Red	6.69
63A						
710336	4	380 - 415	3+PE	6	Red	9.84
710346	5	380 - 415	3+N+PE	6	Red	

EPIC® CEE plugs (IP67)



North American standard

Part number	Number of wires	Voltage / current rating	Number of poles	Ground-clock position	Color code	A in	Ø in	Cable entry	SKINTOP® SL PG thread
20A									
477203FX	3	125	1+N+PE	4		4.41	2.87	PG 13	53015030
477303FX	3	250	2+PE	6					
477313FX	4	3Ø 250	3+PE	9		4.61	3.15	PG 16	53015040
477513FX	4	3Ø 480	3+PE	7					
30A									
477206FX	3	125	1+N+PE	4		5.55	3.70	PG 21	53015050
477306FX	3	250	2+PE	6					
477316FX	4	3Ø 250	3+PE	9					
477516FX	4	3Ø 480	3+PE	7		5.55	3.98	PG 21	53015050
477326FX	5	3Ø Y 120/208	3+N+PE	9					
60A									
477317FX	4	3Ø 250	3+PE	9		8.19	4.33	PG 29	53015060
477517FX	4	3Ø 480	3+PE	7					
477327FX	5	3Ø 120/208	3+N+PE	9					
100A									
477318FX	4	3Ø 250	3+PE	9		11.14	4.96	NP 2"	—
249550FX	4	3Ø 480	3+PE	7					
477328FX	5	3Ø 120/208	3+N+PE	9					

International standard

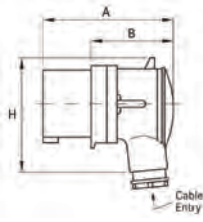
Part number	Number of wires	Voltage / current rating	Number of poles	Ground-clock position	Color code	A in	Ø in	Cable entry	SKINTOP® SL PG thread
16A									
477203	3	110 - 130	2+PE	4		4.41	2.87	PG 13	53015030
477303	3	200 - 250	2+PE	6					
477313	4	200 - 250	3+PE	9		4.61	3.15	PG 16	53015040
477413	4	380 - 415	3+PE	6					
477323	5	200 - 250	3+N+PE	9		4.88	3.46	PG 16	53015040
477423	5	380 - 415	3+N+PE	6					
32A									
477206	3	110 - 130	2+PE	4		5.55	3.70	PG 21	53015050
477306	3	200 - 250	2+PE	6					
477316	4	200 - 250	3+PE	9					
477416	4	380 - 415	3+PE	6		5.55	3.98	PG 21	53015050
477326	5	200 - 250	3+N+PE	9					
477426	5	380 - 415	3+N+PE	6					
63A									
477317	4	200 - 250	3+PE	9		8.19	4.33	PG 29	53015060
477417	4	380 - 415	3+PE	6					
477327	5	200 - 250	3+N+PE	9					
477427	5	380 - 415	3+N+PE	6					
125A									
477318	4	200 - 250	3+PE	9		11.14	4.96	NPT 2"	—
249538	4	380 - 415	3+PE	6					
477328	5	200 - 250	3+N+PE	9					
259538	5	380 - 415	3+N+PE	6					

Recommended SKINTOP® assumes minimal OD variance. Additional configurations are available; please see our SKINTOP® section.

If not otherwise specified, all values relating to the product are nominal values.

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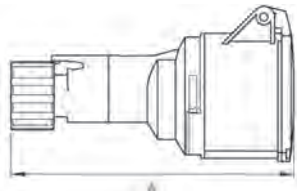
EPIC® CEE 90° plugs (IP44)



North American standard

Part number	Number of wires	Voltage / current rating	Number of poles	Ground-clock position	Color code	A in	B in	H in	Cable entry	SKINTOP® SL PG thread
20A										
475202FX	3	125	1+N+PE	4	Yellow	3.50	2.05	2.87	PG 13	53015030
475302FX	3	250	2+PE	6	Blue					
475312FX	4	3Ø 250	3+PE	9	Blue					
475512FX	4	3Ø 480	3+PE	7	Red	3.82	2.36	3.31	PG 16	53015040

EPIC® MULTIMAX connectors (IP44)



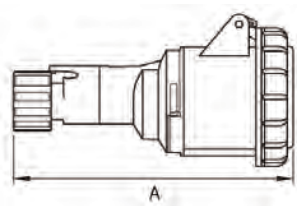
North American standard

Part number	Number of wires	Voltage / current rating	Number of poles	Ground-clock position	Color code	A in
20A						
720124FX	3	125	1+N+PE	4		5.28
720126FX	3	250	2+PE	6		
720139FX	4	3Ø 250	3+PE	9		5.63
720137FX	4	3Ø 480	3+PE	7		
30A						
720224FX	3	125	1+N+PE	4		6.42
720226FX	3	250	2+PE	6		
720239FX	4	3Ø 250	3+PE	9		
720237FX	4	3Ø 480	3+PE	7		
720249FX	5	3Ø Y 120/208	3+N+PE	9		7.17

International standard

Part number	Number of wires	Voltage / current rating	Number of poles	Ground-clock position	Color code	A in
16A						
720124	3	110 - 130	2+PE	4		5.28
720126	3	200 - 250	2+PE	6		
720139	4	200 - 250	3+PE	9		5.63
720136	4	380 - 415	3+PE	6		
720149	5	200 - 250	3+N+PE	9		5.94
720146	5	380 - 415	3+N+PE	6		
32A						
720224	3	110 - 130	2+PE	4		6.42
720226	3	200 - 250	2+PE	6		
720239	4	200 - 250	3+PE	9		
720236	4	380 - 415	3+PE	6		7.17
720249	5	200 - 250	3+N+PE	9		
720246	5	380 - 415	3+N+PE	6		

EPIC® MULTIMAX connectors (IP67)



International standard

Part number	Number of wires	Voltage / current rating	Number of poles	Ground-clock position	Color code	A in
16A						
730124	3	110 - 130	2+PE	4		5.71
730126	3	200 - 250	2+PE	6		
730136	4	380 - 415	3+PE	6		5.91
730146	5	380 - 415	3+N+PE	6		6.50
32A						
730224	3	110 - 130	2+PE	4		7.09
730226	3	200 - 250	2+PE	6		
730236	4	380 - 415	3+PE	6		7.28
730246	5	380 - 415	3+N+PE	6		
63A						
730336	4	380 - 415	3+PE	6		10.63
730346	5	380 - 415	3+N+PE	6		

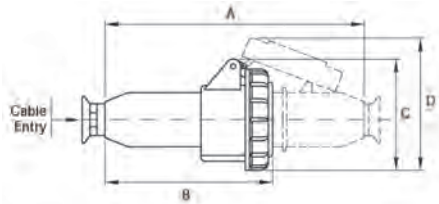
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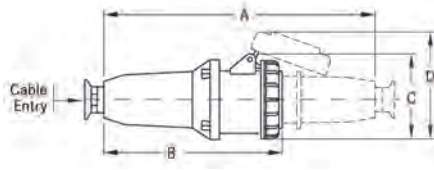
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EPIC® CEE connectors (IP67)

16A, 20A, 30A, 32A



60A, 63A, 100A, 125A



North American standard

Part number	Number of wires	Voltage / current rating	Number of poles	Ground-clock position	Color code	A in	B in	C in	D in	Cable entry	SKINTOP® SL PG thread
20A											
473203FX	3	125	1+N+PE	4		7.28	4.72	3.23	3.93	PG 13	53015030
473303FX	3	250	2+PE	6							
473313FX	4	3Ø 250	3+PE	9		7.68	4.88	3.54	4.21	PG 16	53015040
473513FX	4	3Ø 480	3+PE	7							
30A											
473206FX	3	125	1+N+PE	4		9.37	6.02	4.13	4.92	PG 21	53015050
473306FX	3	250	2+PE	6							
473316FX	4	3Ø 250	3+PE	9							
473516FX	4	3Ø 480	3+PE	7		9.37	6.02	4.33	5.12	PG 21	53015050
473326FX	5	3Ø Y 120/208	3+N+PE	9							
60A											
473317FX	4	3Ø 250	3+PE	9		14.76	9.76	4.72	5.91	PG 29	53015060
346350FX	4	3Ø 480	3+PE	7							
473327FX	5	3Ø 120/208	3+N+PE	9							
100A											
473318FX	4	3Ø 250	3+PE	9		19.02	11.42	5.12	6.61	NPT 2"	—
349550FX	4	3Ø 480	3+PE	7							
473328FX	5	3Ø 120/208	3+N+PE	9							

International standard

Part number	Number of wires	Voltage / current rating	Number of poles	Ground-clock position	Color code	A in	B in	C in	D in	Cable entry	SKINTOP® SL PG thread
16A											
473203	3	110 - 130	2+PE	4		7.28	4.72	3.23	3.93	PG 13	53015030
473303	3	200 - 250	2+PE	6							
473313	4	200 - 250	3+PE	9		7.68	4.88	3.54	4.21	PG 16	53015040
473413	4	380 - 415	3+PE	6							
473323	5	200 - 250	3+N+PE	9		7.87	4.88	3.93	4.61	PG 16	53015040
473423	5	380 - 415	3+N+PE	6							
32A											
473206	3	110 - 130	2+PE	4		9.37	6.02	4.13	4.92	PG 21	53015050
473306	3	200 - 250	2+PE	6							
473316	4	200 - 250	3+PE	9							
473416	4	380 - 415	3+PE	6		9.37	6.02	4.33	5.12	PG 21	53015050
473326	5	200 - 250	3+N+PE	9							
473426	5	380 - 415	3+N+PE	6							
63A											
473317	4	200 - 250	3+PE	9		14.76	9.76	4.72	5.91	PG 29	53015060
346338	4	380 - 415	3+PE	6							
473327	5	200 - 250	3+N+PE	9							
356338	5	380 - 415	3+N+PE	6							
125A											
473318	4	200 - 250	3+PE	9		19.02	11.42	5.12	6.61	NPT 2"	—
349538	4	380 - 415	3+PE	6							
473328	5	200 - 250	3+N+PE	9							
359538	5	380 - 415	3+N+PE	6							

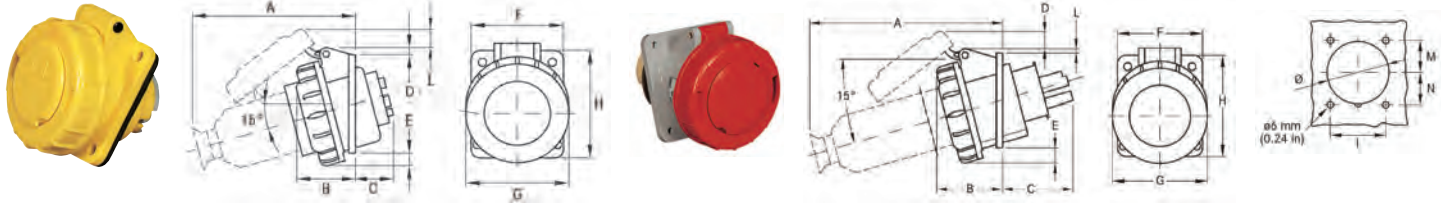
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EPIC® CEE angled panel mount receptacles (IP67)

16A, 20A, 30A, 32A

60A, 63A, 100A, 125A

drilling pattern



North American standard

Part number	Number of wires	Voltage / current rating	Number of poles	Ground-clock position	Color code	A in	B in	C in	D in	E in	F in	G in	H in	L in	I in	M in	N in	Ø in
20A																		
471263FX	3	125	1+N+PE	4		4.84	1.81	1.22	0.28	0.35	2.44	3.03	2.76	0.59	1.85	1.02	1.14	2.09
471363FX	3	250	2+PE	6														
471373FX	4	3Ø 250	3+PE	9		5.24	1.89	1.18	0.24	0.39	2.76	3.15	3.03	0.59	2.09	1.18	1.18	2.36
471573FX	4	3Ø 480	3+PE	7														
30A																		
471267FX	3	125	1+N+PE	4		6.18	2.20	1.54	0.12	0.24	3.35	3.70	3.82	0.79	2.36	1.38	1.46	2.76
471367FX	3	250	2+PE	6														
471377FX	4	3Ø 250	3+PE	9														
471577FX	4	3Ø 480	3+PE	7		6.22	2.28	1.50	0.12	0.30	3.54	3.98	4.13	0.79	2.56	1.50	1.65	2.95
471387FX	5	3Ø Y 120/208	3+N+PE	9														
60A																		
546322FX	4	3Ø 250	3+PE	9		8.90	3.15	3.15	0.91	0.39	3.94	4.29	4.25	0.31	3.03	1.54	1.81	3.39
546350FX	4	3Ø 480	3+PE	7														
556322FX	5	3Ø 120/208	3+N+PE	9														
100A																		
549322FX	4	3Ø 250	3+PE	9		12.60	3.98	3.23	1.38	0.79	4.49	5.03	4.49	0.31	3.54	1.69	1.85	3.78
549550FX	4	3Ø 480	3+PE	7														
559322FX	5	3Ø 120/208	3+N+PE	9														

International standard

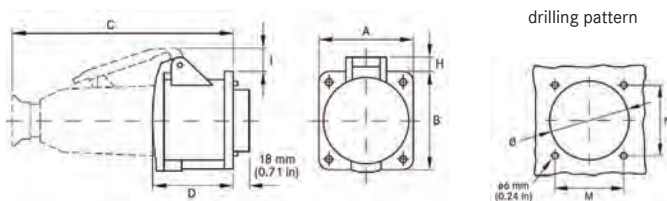
Part number	Number of wires	Voltage / current rating	Number of poles	Ground-clock position	Color code	A in	B in	C in	D in	E in	F in	G in	H in	L in	I in	M in	N in	Ø in
16A																		
471263	3	110 - 130	2+PE	4		4.84	1.81	1.22	0.28	0.35	2.44	3.03	2.76	0.59	1.85	1.02	1.14	2.09
471363	3	200 - 250	2+PE	6		5.24	1.89	1.18	0.24	0.39	2.76	3.15	3.03	0.59	2.09	1.18	1.18	2.36
471373	4	200 - 250	3+PE	9														
471473	4	380 - 415	3+PE	6		5.51	2.01	0.94	0.30	0.35	3.03	3.46	3.35	0.59	2.24	1.22	1.34	2.60
471333	5	200 - 250	3+N+PE	9														
471483	5	380 - 415	3+N+PE	6														
32A																		
471267	3	110 - 130	2+PE	4		6.18	2.20	1.54	0.12	0.28	3.35	3.70	3.82	0.79	2.36	1.38	1.46	2.76
471367	3	200 - 250	2+PE	6														
471377	4	200 - 250	3+PE	9		6.18	2.20	1.54	0.12	0.24	3.35	3.70	3.82	0.79	2.36	1.38	1.46	2.76
471477	4	380 - 415	3+PE	6														
471387	5	200 - 250	3+N+PE	9		6.22	2.28	1.50	0.12	0.30	3.54	3.98	4.13	0.79	2.56	1.50	1.65	2.95
471487	5	380 - 415	3+N+PE	6														
63A																		
546322	4	200 - 250	3+PE	9		8.90	3.15	3.15	0.91	0.39	3.94	4.29	4.25	0.31	3.03	1.54	1.81	3.39
546338	4	380 - 415	3+PE	6														
556322	5	200 - 250	3+N+PE	9														
556338	5	380 - 415	3+N+PE	6														
125A																		
549322	4	200 - 250	3+PE	9		12.60	3.98	3.23	1.38	0.79	4.49	5.03	4.49	0.31	3.54	1.69	1.85	3.78
549538	4	380-415	3+PE	6														
559322	5	200 - 250	3+N+PE	9														
559538	5	380 - 415	3+N+PE	6														

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EPIC® CEE flush mount receptacles (IP44)



North American standard

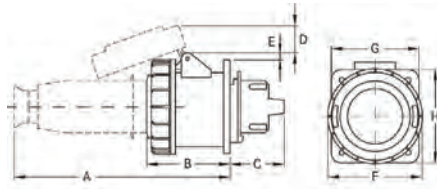
Part number	Number of wires	Voltage / current rating	Number of poles	Ground-circuit position	Color code	A in	B in	C in	D in	H in	I in	M in	N in	Ø in
20A														
431611FX	3	125	1+N+PE	4	Yellow	2.44	2.44	5.12	1.85	0.31	0.71	1.85	1.85	1.97
431622FX	3	250	2+PE	6	Blue									
441622FX	4	3Ø 250	3+PE	9	Blue									
441650FX	4	3Ø 480	3+PE	7	Red	2.95	2.95	5.12	1.85	0.31	0.71	2.36	2.36	2.48
30A														
433211FX	3	125	1+N+PE	4	Yellow	2.95	2.95	6.69	2.44	0.47	0.79	2.36	2.36	2.49
433222FX	3	250	2+PE	6	Blue									
443222FX	4	3Ø 250	3+PE	9	Blue									
443250FX	4	3Ø 480	3+PE	7	Red									
453222FX	5	3Ø Y 120/208	3+N+PE	9	Blue	2.95	2.95	6.69	2.44	0.59	1.02	2.36	2.36	2.49

International standard

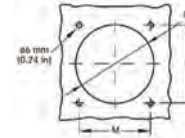
Part number	Number of wires	Voltage / current rating	Number of poles	Ground-clock position	Color code	A in	B in	C in	D in	H in	I in	M in	N in	Ø in
16A														
431611	3	110 - 130	2+PE	4		2.44	2.44	5.12	1.85	0.31	0.71	1.85	1.85	1.97
431622	3	200 - 250	2+PE	6										
441622	4	200 - 250	3+PE	9										
441638	4	380 - 415	3+PE	6		2.95	2.95	5.12	1.85	0.31	0.71	2.36	2.36	2.48
451622	5	200 - 250	3+N+PE	9		2.95	2.95	5.51	1.85	0.39	0.79	2.36	2.36	2.48
451638	5	380 - 415	3+N+PE	6										
32A														
433211	3	110 - 130	2+PE	4		2.95	2.95	6.69	2.44	0.47	0.79	2.36	2.36	2.49
433222	3	200 - 250	2+PE	6										
443222	4	200 - 250	3+PE	9										
443238	4	380 - 415	3+PE	6										
453222	5	200 - 250	3+N+PE	9		2.95	2.95	6.69	2.44	0.59	1.02	2.36	2.36	2.49
453238	5	380 - 415	3+N+PE	6										

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EPIC® CEE flush mount receptacles (IP67)



drilling pattern



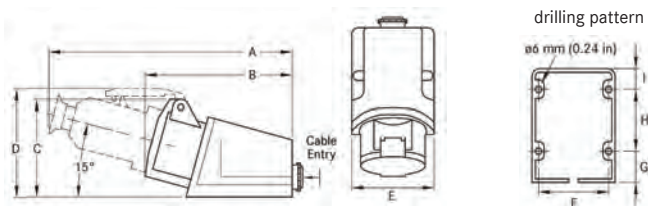
North American standard

Part number	Number of wires	Voltage / current rating	Number of poles	Ground-clock position	Color code	A in	B in	C in	D in	E in	F in	G in	H in	M in	N in	Ø in
60A																
446322FX	4	3Ø 250	3+PE	9		9.84	3.78	2.52	1.26	0.35	4.33	3.94	4.25	3.03	3.35	3.35
446350FX	4	3Ø 480	3+PE	7												
456322FX	5	3Ø 120/208	3+N+PE	9												
100A																
449322FX	4	3Ø 250	3+PE	9		13.78	4.45	3.07	1.50	0.39	4.96	4.49	4.49	3.54	3.54	3.86
449550FX	4	3Ø 480	3+PE	7												
459322FX	5	3Ø 120/208	3+N+PE	9												

International standard

Part number	Number of wires	Voltage / current rating	Number of poles	Ground-clock position	Color code	A in	B in	C in	D in	E in	F in	G in	H in	M in	N in	Ø in
63A																
446322	4	200 - 250	3+PE	9		9.84	3.78	2.52	1.26	0.35	4.33	3.94	4.25	3.03	3.35	3.35
446338	4	380 - 415	3+PE	6												
456322	5	200 - 250	3+N+PE	9												
456338	5	380 - 415	3+N+PE	6												
125A																
449322	4	200 - 250	3+PE	9		13.78	4.45	3.07	1.50	0.39	4.96	4.49	4.49	3.54	3.54	3.78
449538	4	380 - 415	3+PE	6												
459322	5	200 - 250	3+N+PE	9												
459538	5	380 - 415	3+N+PE	6												

EPIC® CEE surface mount receptacles (IP44)



North American standard

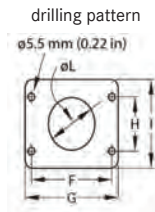
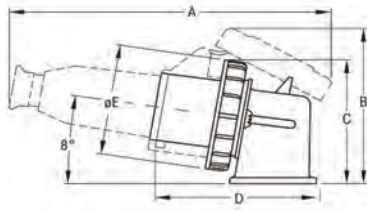
Part number	Number of wires	Voltage / current rating	Number of poles	Ground-clock position	Color code	A in	B in	C in	D in	E in	F in	G in	H in	I in	Cable entry	SKINTOP® SL PG thread
20A																
471262FX	3	125	1+N+PE	4	Yellow	5.66	4.92	3.15	3.54	2.56	2.13	0.98	1.73	0.63	PG 13	53015030
471362FX	3	250	2+PE	6	Blue	5.66	5.28	3.46	3.90	2.95	2.52	1.10	2.05	0.63	PG 16	53015040
471372FX	4	3Ø 250	3+PE	9	Blue	5.66	5.28	3.46	3.90	2.95	2.52	1.10	2.05	0.63	PG 16	53015040
471572FX	4	3Ø 480	3+PE	7	Red	5.66	5.28	3.46	3.90	2.95	2.52	1.10	2.05	0.63	PG 16	53015040
30A																
471266FX	3	125	1+N+PE	4	Yellow	10.08	6.06	3.94	4.53	3.31	2.83	1.24	2.20	0.89	PG 21	53015050
471366FX	3	250	2+PE	6	Blue											
471376FX	4	3Ø 250	3+PE	9	Blue											
471576FX	4	3Ø 480	3+PE	7	Red											
471386FX	5	3Ø Y 120/208	3+N+PE	9	Blue	10.18	6.10	4.06	4.72	3.31	2.83	1.24	2.20	0.89	PG 21	53015050

International standard

Part number	Number of wires	Voltage / current rating	Number of poles	Ground-clock position	Color code	A in	B in	C in	D in	E in	F in	G in	H in	I in	Cable entry	SKINTOP® SL PG thread
16A																
471262	3	110 - 130	2+PE	4	Yellow	5.66	4.92	3.15	3.54	2.56	2.13	0.98	1.73	0.63	PG 13	53015030
471362	3	200 - 250	2+PE	6	Blue	5.66	5.28	3.46	3.9	2.95	2.52	1.10	2.05	0.63	PG 16	53015040
471372	4	200 - 250	3+PE	9	Blue	5.66	5.28	3.46	3.9	2.95	2.52	1.10	2.05	0.63	PG 16	53015040
471472	4	380 - 415	3+PE	6	Red	5.66	5.28	3.46	3.9	2.95	2.52	1.10	2.05	0.63	PG 16	53015040
471332	5	200 - 250	3+N+PE	9	Blue	5.66	5.28	3.62	4.13	2.95	2.52	1.10	2.05	0.63	PG 16	53015040
471482	5	380 - 415	3+N+PE	6	Red	5.66	5.28	3.62	4.13	2.95	2.52	1.10	2.05	0.63	PG 16	53015040
32A																
471266	3	110 - 130	2+PE	4	Yellow	10.08	6.06	3.94	4.53	3.31	2.83	1.24	2.20	0.89	PG 21	53015050
471366	3	200 - 250	2+PE	6	Blue											
471376	4	200 - 250	3+PE	9	Blue											
471476	4	380 - 415	3+PE	6	Red											
471386	5	200 - 250	3+N+PE	9	Blue	10.18	6.10	4.06	4.72	3.31	2.83	1.24	2.20	0.89	PG 21	53015050
471486	5	380 - 415	3+N+PE	6	Red											

Recommended SKINTOP® assumes minimal OD variance. Additional configurations are available; please see our SKINTOP® section.
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EPIC® CEE 90° wall mount inlets (IP67)



North American standard

Part number	Number of wires	Voltage / current rating	Number of poles	Ground-clock position	Color code	A in	B in	C in	D in	øE in	F in	G in	H in	I in	øL in
20A															
476203FX	3	125	1+N+PE	4		4.68	4.33	3.39	3.82	2.97	2.16	2.56	1.118	2.05	1.18
476303FX	3	250	2+PE	6											
476313FX	4	3Ø 250	3+PE	9		8.07	4.72	3.74	4.17	3.15	2.36	2.76	1.38	2.24	1.30
476513FX	4	3Ø 480	3+PE	7											
30A															
476206FX	3	125	1+N+PE	4		9.76	5.35	4.25	4.92	3.70	2.68	3.15	1.57	2.60	1.57
476306FX	3	250	2+PE	6											
476316FX	4	3Ø 250	3+PE	9		10.04	5.83	4.72	5.24	3.98	3.07	3.54	1.77	2.95	1.77
476516FX	4	3Ø 480	3+PE	7											
476326FX	5	3Ø Y 120/208	3+N+PE	9											

International standard

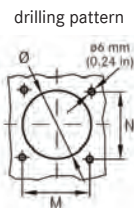
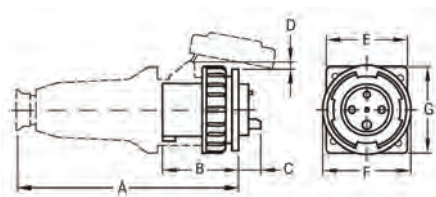
Part number	Number of wires	Voltage / current rating	Number of poles	Ground-clock position	Color code	A in	B in	C in	D in	øE in	F in	G in	H in	I in	øL in
16A															
476203	3	110 - 130	2+PE	4		4.68	4.33	3.39	3.82	2.97	2.56	2.05	2.16	1.18	1.18
476303	3	200 - 250	2+PE	6											
476313	4	200 - 250	3+PE	9		8.07	4.72	3.74	4.17	3.15	2.76	2.24	2.36	1.38	1.30
476413	4	380 - 415	3+PE	6											
476323	5	200 - 250	3+N+PE	9		8.46	5.12	4.13	4.61	3.46	3.15	2.60	2.69	1.57	1.57
476423	5	380 - 415	3+N+PE	6											
32A															
476206	3	110 - 130	2+PE	4		9.76	5.35	4.25	4.92	3.70	3.15	2.60	2.68	1.57	1.57
476306	3	200 - 250	2+PE	6											
476316	4	200 - 250	3+PE	9		10.04	5.83	4.72	5.24	3.98	3.54	2.95	3.07	1.77	1.77
476416	4	380 - 415	3+PE	6											
476326	5	200 - 250	3+N+PE	9											
476426	5	380 - 415	3+N+PE	6											

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Courtesy of Steven Engineering, Inc - (800) 258-9200 - sales@steveneng.com - www.stevenengineering.com

EPIC® CEE flush mount inlets (IP67)



North American standard

Part number	Number of wires	Voltage / current rating	Number of poles	Ground-clock position	Color code	A in	B in	C in	D in	E in	F in	G in	M in	N in	Ø in
60A															
476317FX	4	3Ø 250	3+PE	9		11.22	3.74	1.02	0.39	3.94	4.33	4.25	3.03	3.35	3.35
476517FX	4	3Ø 480	3+PE	7											
476327FX	5	3Ø 120/208	3+N+PE	9											
100A															
476318FX	4	3Ø 250	3+PE	9		13.98	4.65	2.64	0.39	4.49	4.96	4.49	3.54	3.54	3.90
749550FX	4	3Ø 480	3+PE	7											
476328FX	5	3Ø 120/208	3+N+PE	9											

International standard

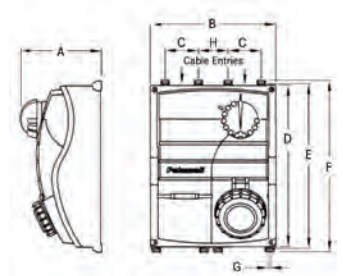
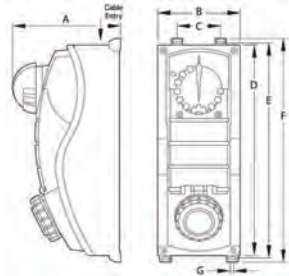
Part number	Number of wires	Voltage / current rating	Number of poles	Ground-clock position	Color code	A in	B in	C in	D in	E in	F in	G in	M in	N in	Ø in
63A															
476317	4	200 - 250	3+PE	9		11.22	3.74	1.02	0.39	3.94	4.33	4.25	3.03	3.35	3.35
746338	4	380 - 415	3+PE	6											
476327	5	200 - 250	3+N+PE	9											
756338	5	380 - 415	3+N+PE	6											
125A															
476318	4	200 - 250	3+PE	9		13.98	4.65	2.64	0.39	4.49	4.96	4.49	3.54	3.54	3.90
749538	4	380 - 415	3+PE	6											
476328	5	200 - 250	3+N+PE	9											
759538	5	380 - 415	3+N+PE	6											

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EPIC® ULYSSE mechanical interlocks (IP66/67)

16A, 20A, 30A, 32A

60A, 63A



North American standard

Part number	Number of wires	Voltage / current rating	Number of poles	Ground-clock position	Color code	A in	B in	C in	D in	E in	F in	G in	H in	Cable entry (unthreaded)
20A														
400124FX	3	125	1+N+PE	4		6.50	4.92	2.60	12.60	12.87	13.39	0.20	—	PG 29
400126FX	3	250	2+PE	6										
400139FX	4	3Ø 250	3+PE	9										
400137FX	4	3Ø 480	3+PE	7										
30A														
400224FX	3	125	1+N+PE	4		6.50	4.92	2.60	12.60	12.87	13.39	0.20	—	PG 29
400226FX	3	250	2+PE	6										
400239FX	4	3Ø 250	3+PE	9										
400237FX	4	3Ø 480	3+PE	7										
400249FX	5	3Ø Y 120/208	3+N+PE	9										
60A														
408339FX	4	3Ø 250	3+PE	9		6.50	9.84	2.60	12.60	12.87	13.39	0.20	2.32	2x PG 29
408337FX	4	3Ø 480	3+PE	7										
408349FX	5	3Ø Y 120/208	3+N+PE	9										

International standard

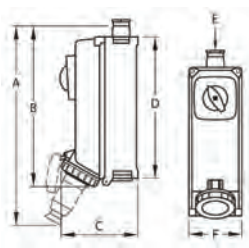
Part number	Number of wires	Voltage / current rating	Number of poles	Ground-clock position	Color code	A in	B in	C in	D in	E in	F in	G in	H in	Cable entry (unthreaded)
16A														
400124	3	110 - 130	2+PE	4		6.50	4.92	2.60	12.60	12.87	13.39	0.20	—	PG 29
400126	3	200 - 250	2+PE	6										
400139	4	200 - 250	3+PE	9										
400136	4	380 - 415	3+PE	6										
400149	5	200 - 250	3+N+PE	9										
400146	5	380 - 415	3+N+PE	6										
32A														
400224	3	110 - 130	2+PE	4		6.50	4.92	2.60	12.60	12.87	13.39	0.20	—	PG 29
400226	3	200 - 250	2+PE	6										
400239	4	200 - 250	3+PE	9										
400236	4	380 - 415	3+PE	6										
400249	5	200 - 250	3+N+PE	9										
400246	5	380 - 415	3+N+PE	6										
63A														
400339	4	200 - 250	3+PE	9		6.50	2.60	2.60	12.60	12.87	13.39	0.20	2.32	2x PG 29
400349	4	380 - 415	3+PE	6										
400349	5	200 - 250	3+N+PE	9										
400346	5	380 - 415	3+N+PE	6										

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EPIC® ALUPRES mechanical interlocks (IP55/67)



drilling pattern



North American standard

Part number	Number of wires	Voltage / current rating	Number of poles	Ground-clock position	Color code	A in	B in	C in	D in	E* in	F in	G in	H in
20A: IP67													
460124FX	3	125	1+N+PE	4		11.61	9.84	11.81	8.66	0.50	3.60	3.01	8.07
460126FX*	3	250	2+PE	6									
460139FX*	4	3Ø 250	3+PE	9		12.01	9.84	12.01	8.66	0.50	3.60	3.01	8.07
460137FX*	4	3Ø 480	3+PE	7									
30A: IP67													
460224FX	3	125	1+N+PE	4		16.54	13.19	8.19	12.40	6.61	4.92	4.33	11.81
460226FX	3	250	2+PE	6									
460239FX	4	3Ø 250	3+PE	9		16.54	13.29	8.28	12.40	6.69	4.92	4.33	11.81
460237FX	4	3Ø 480	3+PE	7									
460249FX	5	3Ø Y 120/208	3+N+PE	9		16.54	13.29	8.28	12.40	6.69	4.92	4.33	11.81
60A: IP55													
460339FX	4	3Ø 250	3+PE	9		20.39	15.04	9.84	13.98	7.40	4.92	4.33	13.39
460337FX	4	3Ø 480	3+PE	7									
460349FX	5	3Ø Y 120/208	3+N+PE	9		20.39	15.04	9.84	13.98	7.40	4.92	4.33	13.39

* Includes flat flange

International standard

Part number	Number of wires	Voltage / current rating	Number of poles	Ground-clock position	Color code	A in	B in	C in	D in	E* in	F in	G in	H in
16A: IP67													
460124*	3	110 - 130	2+PE	4		11.61	9.84	11.81	8.66	0.50	3.60	3.01	8.07
460126*	3	200 - 250	2+PE	6									
460139*	4	200 - 250	3+PE	9		12.01	9.84	12.01	8.66	0.50	3.60	3.01	8.07
460136*	4	380 - 415	3+PE	6									
460146*	5	380 - 415	3+N+PE	6		12.40	9.92	12.40	8.66	0.50	3.60	3.01	8.07
32A: IP67													
460224	3	110 - 130	2+PE	4		16.54	13.19	8.19	12.40	6.61	4.92	4.33	11.81
460226	3	200 - 250	2+PE	6									
460239	4	200 - 250	3+PE	9		16.54	13.29	8.28	12.40	6.69	4.92	4.33	11.81
460236	4	380 - 415	3+PE	6									
460249	5	200 - 250	3+N+PE	9		16.54	13.29	8.28	12.40	6.69	4.92	4.33	11.81
460246	5	380 - 415	3+N+PE	6									
63A: IP55													
460339	4	200 - 250	3+PE	9		20.39	15.04	9.84	13.98	7.40	4.92	4.33	13.39
460349	5	200 - 250	3+N+PE	9									

* Includes flat flange

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Watertight covers for IP67 plugs & inlets

North American & international devices



Part number	Device rating	Plug type
476903	20/16A	2+PE
476913	20/16A	3+PE
476923	20/16A	3+N+PE
476905	30/32A	2+PE
476905	30/32A	3+PE
476925	30/32A	3+N+PE
476907	60/63A	all
476909	100/125	all

Long thread plastic cable gland for EPIC® ULYSSE



Part number		Cable outer diameter		Thread	Thread length	
gland	locknut	in	mm	size	in	mm
571129	571229	0.70 - 0.98	18 - 25	PG 29	0.59	15

Flanges with cable gland for EPIC® ALUPRES

raised flange

flat flange



Part number	Window size	Cable outer diameter		Thread
		in	mm	
F0 flat flange				
541080FX*	20/16A	0.35 - 0.47	9 - 12	NPT 1/2"
541090FX**	20/16A	0.47 - 0.63	12 - 16	NPT 3/4"
541030FX	20/16A	0.67 - 0.79	17 - 20	NPT 1"
F1 flat flange				
541011FX	30/32A, 60/63A	0.35 - 0.47	9 - 12	NPT 1/2"
541021FX	30/32A, 60/63A	0.55 - 0.63	14 - 16	NPT 3/4"
F1 raised flange				
540151FX	30/32A, 60/63A	0.63 - 0.87	16 - 22	NPT 1"
540141FX	30/32A, 60/63A	0.98 - 1.02	25 - 26	NPT 1 1/4"

* Supplied with 20/16A EPIC® ALUPRES: 2+PE, 3+PE

** Supplied with 20/16A EPIC® ALUPRES: 3+N+PE

Pin & sleeve cordsets

Harmonized or UL cordsets

These pre-assembled and tested cable connector cordsets are easy to order and stock. They speed up initial installation and replacement, minimizing installation cost and downtime. They are available in both North American and international voltage and current configurations using LAPP's wide offering of pin & sleeve connectors and cables. Please contact a representative with your specific requirements for a custom cordset.

IP44 cordsets

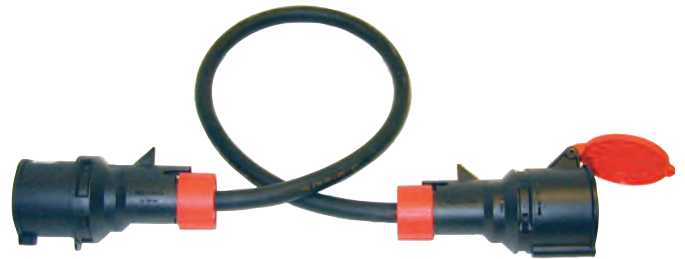
type A: plug to flying leads



type B: connector to flying leads



type C: plug to connector



IP67 cordsets

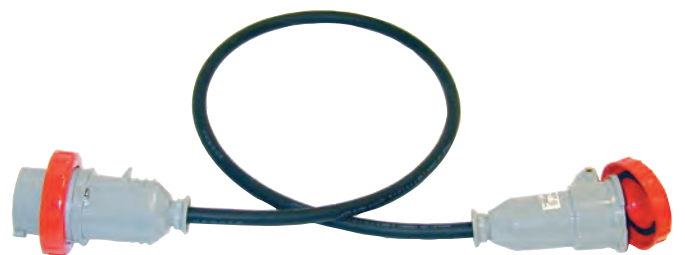
type A: plug to flying leads



type B: connector to flying leads



type C: plug to connector



IEC & UL standards

Founded in 1906, the International Electrotechnical Commission (IEC) is the global organization that prepares and publishes international standards for all electrical, electronic, and related technologies. The IEC was founded as a result of a resolution passed at the International Electrical Congress held in St. Louis, Missouri in 1904. The membership consists of more than 60 participating countries, including all the world's major trading nations, and a growing number of industrialized countries.

IEC 60309-1 (1999-02)

Plugs, socket-outlets, and couplers for industrial purposes

Part 1: General Requirements

Applies to plugs and socket-outlets, cable couplers, and appliance couplers with a rated operating voltage not exceeding 690V DC or AC, 500Hz AC, and a rated current not exceeding 250A, primarily intended for industrial use, either indoors or outdoors, when the ambient temperature does not normally exceed 40°C.

Part 2: Dimensional Interchangeability Requirements for Pin and Contact-tube Accessories

Applies to plugs and socket-outlets, cable couplers, and appliance couplers with a rated operating voltage not exceeding 690V, 500Hz, and a rated current not exceeding 125A, primarily intended for industrial use, either indoors or outdoors. Together, the IEC 60309 standards provide industrial pin and sleeve connectors that are coded to provide positive voltage and frequency matching. Physical characteristics of these connectors make it virtually impossible to mis-match plugs and receptacles of different voltage and current ratings. The size of the device is determined by its amperage rating. Devices with different amperage ratings cannot be coupled due to the size variance used.

The IEC's mission is to promote international cooperation on all electrotechnical standardization questions and related matters in the fields of electricity, electronics, and related technologies. IEC's international standards ensure that a component or system manufactured in one country to IEC specifications can be sold to and used in any other country using the same standards.

Pin & sleeve devices conforming to IEC 309-2 are single-rated with their voltage determined by the location of the oversized female ground contact relative to a keyway molded into the bottom of the housing. Twelve positions are possible (conforming to the positions of a clock face) to represent the ground pin location for specific voltages. Mismatched voltage devices are impossible to couple. In addition, each device is clearly marked and color-coded to indicate the voltage for which it is intended to be used.

As a result of this standardization, all manufacturers' devices that conform to these standards are intermateable and interchangeable.

All North American products in this catalog are designed, tested, and approved by Underwriters Labs in accordance with UL 1682 and UL 1686 standards:

UL 1682

Plugs, receptacles, and cable connectors of the pin & sleeve type

Describes the electrical and mechanical characteristics.

UL 1686

Pin & sleeve configurations

Describes contact location and other requirements relative to voltage rating for interchangeability.

The charts on the following page show the ground pin location (referenced to the female connector) and color coding for both the North American and international product configurations.

Ground pin location & voltage

Ground pin location is specified for the female connector referenced to the hour positions on the face of a clock.

The keyway is always at the 6 o'clock position. Color slices represent voltages. Voltage is represented by the color of the connector.

North American standard

3 wires: 2+PE & 1+N+PE



4 wires: 2+N+PE & 3+PE



5 wires: 3+N+PE

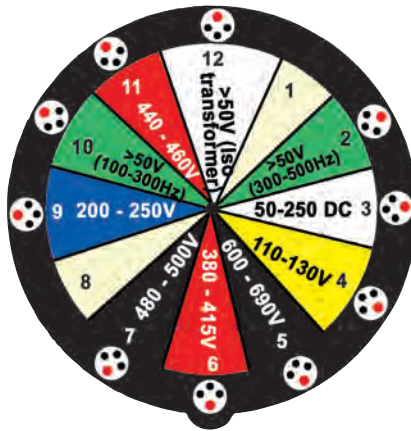


International standard

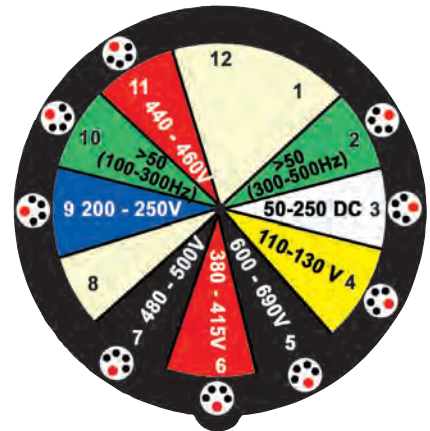
3 wires: 2+PE



4 wires: 3+PE



5 wires: 3+N+PE



Key features

■ EPIC® MULTIMAX

- Patented click-lock housing
- Patented integral cable grip with shade ring locking device
- Patented universal membrane seal
- High-copper solid brass contacts

■ EPIC® CEE series

- Integral cable clamp
- Peelable neoprene grommet
- PG-threaded cable gland
- Stainless steel assembly screws
- High-copper solid brass contacts with nickel-plated male pins for IP67 plugs:
 - North American: 20A & 30A plugs
 - International: all plugs

■ Common features

- Tough type 6 nylon housing
- Mate first/break last ground contact
- Voltage-polarized contacts and color-coded housings
- Conforms to IEC 60309-1 & -2
- UL 1682 & 1686 approved

Electrical features

Dielectric voltage withstand	up to 3000V for 1 minute
Maximum working voltage	600V (North American), 690V (International)
Insulation resistance	5 mΩ minimum
Overload	150% rated current at rated voltage for 50 make/break cycles
Current interrupting/load breaking	tested to 125% rated current at 110% rated voltage per IEC 60309-1, clause 20
Conditional short circuit current	10,000A at rated voltage per IEC 60309-1, clause 29
Endurance, connect & disconnect cycles	see Table 2 on next page
Ground path current	see Table 1 on next page

Mechanical features

Impact resistance (-25°C for 6 hours)	per UL 1682, section 34 & IEC 60309-1, clause 24
Crush resistance (-25°C for 6 hours)	250 lbs for 1 minute
Withdrawal force	see Table 4 on next page
Cable security	see Table 3 on next page
Polarization integrity	maintained by oversized ground pin and clock key
Wire size accommodation	see Table 6 on next page
Cable outer diameter accommodation	see Table 5 on next page

Environmental features

Operating temperature range	-25°C to +50°C
Flammability (self-extinguishing)	20/16A & 30/32A contact holders: Glow Wire 850°C (V-2 per UL 94)
	60/63A & 100/125A contact holders: Glow Wire 960°C (V-0 per UL 94)
	other components: Glow Wire 650°C
	EPIC® ULYSSE series: Glow Wire 960°C (V-0 per UL 94)
Moisture resistance	EPIC® MULTIMAX series: IP44 (indoor splash-proof)
	EPIC® CEE series: IP44 (indoor splash-proof) & IP67 (indoor/outdoor watertight)
	EPIC® ULYSSE series: IP66/67 (indoor/outdoor watertight)
	EPIC® ALUPRES series: IP65/67 (indoor/outdoor watertight)
Corrosion resistance	external screws & cover springs: stainless steel
	EPIC® CEE series contact pins: (North American: 20A & 30A; Int'l: all) nickel-plated brass
Chemical resistance	resists standard industrial hydrocarbons, acids, bases, and solvents
UV resistance	exposed plastic materials are UV-stabilized

Test data & cable outer diameter accommodation

Table 1: ground path current test

A test current that far exceeds the device rating is passed through the mating device and grounding wires.

Device rating	Grounding conductor min. size AWG	mm ²	Time sec	Test current A
20/16A	12	3.3	4	470
30/32A	10	5.3	4	750
60/63A	10	5.3	4	750
100/125A	8	8.4	4	1180

Table 2: endurance test

The test sequence is conducted using a no-load, followed by a loading sequence. The power factor of the load is 0.75 - 0.80.

Device rating	Cycles with load @ rated current & voltage	No-load cycles	Sequence
20/16A	5000	0	—
30/32A	1000	1000	alternating
60/63A	1000	1000	alternating
100/125A	250	250	alternating

Table 3: cable security test

The flexible cord or cable is simultaneously twisted and pulled. Values for the applied twisting torque and force of pull are shown. In all cases, the cord displacement is less than $\frac{3}{32}$ "

Device rating	Force		Torque		Max. displacement	
	lb	N	ft/lb	N/m	in	mm
20/16A	30	133	0.4	0.54	3/32	2.38
30/32A	75	333	0.5	0.68	3/32	2.38
60/63A	150	667	1.0	1.4	3/32	2.38
100/125A	150	667	2.0	2.7	3/32	2.38

Table 4: withdrawal force test

The pressure exerted by mating contacts of a plug and a connector must be sufficient to prevent unintentional withdrawal during normal use. During the test any locked rings or retaining means are not engaged.

Device rating	Min. withdrawal force	
	lb	N
20/16A	5	22
30/32A	6	27
60/63A	15	67
100/125A	20	89

Table 5: cable outer diameter accommodation

Device rating & configuration	Sleeve/ cable gland	Cable diameter range: 2+PE		Cable diameter range: 3+PE		Cable diameter range: 3+N+PE	
		in	mm	in	mm	in	mm
EPIC® MULTIMAX							
20/16A	—	0.32 - 0.55	8.1 - 14.0	0.33 - 0.55	8.5 - 14.0	0.39 - 0.60	10.0 - 15.3
30/32A	—	0.45 - 0.68	11.5 - 17.3	0.49 - 0.76	12.5 - 19.3	0.55 - 0.84	14.0 - 21.3
63A	—	0.67 - 1.02	17.0 - 26.0	0.75 - 1.13	19.0 - 28.6	0.83 - 1.24	21.0 - 31.5
EPIC® CEE							
20/16A: 2P+PE	PG 13	0.32 - 0.53	8.1 - 13.5	—	—	—	—
20/16A: 3P+PE	PG 16	—	—	0.35 - 0.60	8.8 - 15.3	—	—
20/16A: 3P+N+PE	PG 16	—	—	—	—	0.35 - 0.60	8.8 - 15.3
30/32A	PG 21	0.45 - 0.84	11.5 - 21.3	0.45 - 0.84	11.5 - 21.3	0.45 - 0.84	11.5 - 21.3
60/63A	PG 29	0.63 - 1.12	16.0 - 28.5	0.63 - 1.12	16.0 - 28.5	0.63 - 1.12	16.0 - 28.5
100/125A	NPT 2"	1.02 - 1.93	26.0 - 49.0	1.02 - 1.93	26.0 - 49.0	1.02 - 1.93	26.0 - 49.0
EPIC® ULYSSE							
20/16A	PG 29*	0.71 - 0.98	18.0 - 25.0	0.71 - 0.98	18.0 - 25.0	0.71 - 0.98	18.0 - 25.0
30/32A	PG 29*	0.71 - 0.98	18.0 - 25.0	0.71 - 0.98	18.0 - 25.0	0.71 - 0.98	18.0 - 25.0
60/63A	2x PG 29*	0.71 - 0.98	18.0 - 25.0	0.71 - 0.98	18.0 - 25.0	0.71 - 0.98	18.0 - 25.0
EPIC® ALUPRES							
20/16A: 2+PE, 3+PE	FO-NPT ½"	0.35 - 0.47	9.0 - 12.0	0.35 - 0.47	9.0 - 12.0	—	—
20/16A: 3+N+PE	FO-NPT ¾"	—	—	—	—	0.47 - 0.63	12.0 - 16.0
30/32A & 60/63A (order flanges separately)	F1-NPT ½"	0.35 - 0.47	9.0 - 12.0	0.35 - 0.47	9.0 - 12.0	0.35 - 0.47	9.0 - 12.0
	F1-NPT ¾"	0.55 - 0.63	14.0 - 160	0.55 - 0.63	14.0 - 160	0.55 - 0.63	14.0 - 160
	F1-NPT 1"	0.63 - 0.87	16.0 - 22.0	0.63 - 0.87	16.0 - 22.0	0.63 - 0.87	16.0 - 22.0
	F1-NPT 1¼"	0.98 - 1.02	25.0 - 26.0	0.98 - 1.02	25.0 - 26.0	0.98 - 1.02	25.0 - 26.0

* unthreaded entry hole. Cable ODs are based on switched-socket accessory strain relief (ordered separately). See page 479 for required strain relief and locknut.

Table 6: wire size accommodation

Device rating	Max. wire size*		Recommended torque for CEE contact set screws		Recommended torque for MULTIMAX contact set screws	
	AWG	mm ²	ft/lb	N/m	ft/lb	N/m
20/16A	12	4	0.60	0.8	0.60	0.8
30/32A	8	10	2x 0.60	2x 0.8	1.48	2.0
60/63A	6	16	2x 1.48	2x 2.0	—	—
100/125A	1	50	2x 2.95	2x 4.0	—	—

* subject to stranding configuration.

Construction materials

Plugs, connectors, receptacles & inlets

Component	Material
housing	thermoplastic
cable grip	thermoplastic
cover (splash-proof)	thermoplastic
locking ring / cover (watertight)	thermoplastic
contact carrier (20/16A & 30/32A)	thermoplastic
contact carrier (60/63A & 100/125A)	thermoset plastic
cable grommet / seal	neoprene
locking ring gasket	neoprene
flange seal gasket	neoprene
EPIC® MULTIMAX contact pins	high-copper brass
EPIC® CEE contact pins	nickel-plated high-copper brass
contact sleeves	high-copper brass
terminal screws (splash-proof)	brass
terminal screws (watertight)	nickel-plated brass
assembly screws	stainless steel
cover spring	stainless steel

Interlocked switched-socket outlets

Component	Material	
	EPIC® ULYSSE	EPIC® ALUPRES
housing	thermoset plastic	aluminum alloy with baked polymerized paint finish
control grip	thermoset plastic	thermoplastic
locking ring / cover	thermoplastic	thermoplastic
entry gland	thermoplastic	—
contact carrier (20/16A & 30/32A)	thermoplastic	thermoplastic
contact carrier (60/63A)	thermoset plastic	thermoset plastic
cable grommet	neoprene	neoprene
locking ring gasket	neoprene	neoprene
contact sleeves	high-copper brass	high-copper brass
terminal screws	brass	brass
mechanical interlock	tropicalized steel	tropicalized steel
switch lock-out device	stainless steel	—
assembly screws	stainless steel	stainless steel
cover spring	stainless steel	stainless steel

Reference data

Connectors

Reference standards

• General characteristics:	CEI EN 60309-1	IEC 309	CEI 23-12/1
• Standardization:	CEI EN 60309-2	IEC 309-2	CEI 23-12/2
• Protection ratings:	CEI EN 60529	IEC 529	CEI 70-1

Construction characteristics

IP44 & IP67 rated products

- Pins and plug contacts are made of solid brass bars with a high level of copper.
- External screws, where present, and spring clasps for lids are made of stainless steel.
- The cable clamp is designed to prevent strain from torque and/or traction on the wires in the terminals and also assures that the wire covering stays in good condition
- Elements holding live parts (for 20A & 30A North American or 16A & 32A international standards) are made of self-extinguishing thermoplastic technopolymer (V-2 per UL 94), with Glow Wire resistance to 850°C and resistance to tracking of > 600V. For products to 60A & 100A North American and 63A & 125A international standards, they are made of self-extinguishing thermoset technopolymer (V-0 per UL 94), with Glow Wire resistance to 960°C and resistance to tracking of > 600V.
- Body and lids are made of technopolymer with high impact resistance and excellent dimensional stability.

IP67 rated products

- Pins are subject to a thick nickel-plating treatment to increase their resistance to oxidation and wear even under the worst operating conditions.
- In products to 60A & 100A North American and 63A & 125A international standards, a standard pilot contact is included.
- Cable glands have parts in peelable rubber for adapting to a variety of cable sizes.
- For plug and socket-outlets to 60A & 100A North American and 63A & 125A international standards, bodies are made of extra-durable thermoplastic technopolymer to assure improved impact resistance even under extreme conditions.

Resistance & testing

Resistance to excess heat and fire

Glow Wire test (according to IEC Publication 695-2-1): This test checks the reaction of a given insulation after overheating of adjacent metallic parts caused by bad connections or faults in the system. A glow wire coil is pressed into the specimen for 30 seconds, penetrating up to 7 mm. A sheet of tissue paper is put under the point of contact. The temperature of the wire required by the standard is 850°C for items used for holding parts that carry current and 650°C for other insulations. The test is considered to have a positive outcome if the specimen does not catch fire or if it self-extinguishes within 30 seconds of the wire being removed without burning entirely and causing continuous burning of the tissue paper beneath.

All plugs and connector components meet or exceed the temperature test requirements set by IEC.

UL 94: self-extinguishing test

A Bunsen burner is twice brought into contact with an insulation specimen in a vertical position, each time lasting 10 seconds. Cotton wool is placed under the point of contact.

Classification	Reaction of specimen
V-0	Extinguishes within 5 seconds. The cotton beneath does not ignite.
V-1	Extinguishes within 25 seconds. The cotton beneath does not ignite.
V-2	Extinguishes within 25 seconds. The cotton beneath ignites.
HB	Does not extinguish within 25 seconds. When testing the specimen horizontally, burns at a speed lower than 38 mm/min (at a thickness greater than 3 mm) and less than 76 mm/min (at a thickness of up to 3 mm).

Testing for resistance to tracking (in compliance with IEC 112)

The surfaces of the insulated item being tested are arranged horizontally and two platinum electrodes are placed on them at a distance of 4 mm. The electrodes are connected to a 50 Hz supply source. Every 30 seconds a drop of 0.1% ammonium chloride in distilled water falls between the two electrodes. The test is passed if there are no electrical charges between the two electrodes before 50 drops have fallen. Results depend on the level of voltage applied to the electrodes, and this is taken as the index of resistance to tracking.

All plugs and connectors comply with the tracking resistance requirement of IEC.

Reference data

Mechanical interlocks

Reference standards

• Socket outlets:	CEI EN 60309-1	IEC 309	CEI 23-12/1	CEI EN 60309-2	IEC 309-2	CEI 23-12/2
• Enclosures:	CEI EN 60529	IEC 309-2	CEI 70-1			
• Safety transformer:	CEI EN 60742	IEC 742	CEI 96-2			
• Switches:	CEI EN 60974-3	IEC 947-3	CEI 17-11			

Construction characteristics

Socket outlets with mechanical interlock

- Socket outlets that are interlocked, both mechanically & electrically, make it possible to create electricity distribution systems in maximum safety. They also meet specific requirements of system regulations for special system configurations, as described in the following:
 - “socket outlets with a power load over 16A must be the interlocking type.” (CEI 64-8/7, sect. 752.55.1: In electrical systems for public entertainment places)
 - “in C2 sites the socket outlets must be of the interlocking type.” (CEI 64-2, chap. XII, sect. 3, para. 12.3.03: Socket outlet in making an operating safety system (AD-FT))
- The interlock device prevents the switch from being closed if the plug has not been inserted into the socket-outlet and thereafter stops it from being taken out if the switch is in the “closed” position. In addition to this safety feature, the switch knob is connected to a door lock that only allows the enclosure to be opened for maintenance purposes if the switch is in the “open” position.
- The complete functional unit is assembled onto the light alloy frame, which is in turn coupled to the thermoset plastic enclosure. The entire functional structure thus makes up a rigid sub-assembly that is mechanically defined, guaranteeing that the regulations and original functions are maintained in the long term.
- The parts making up the mechanical interlocking device are made in tropicalized steel plate, which guarantees the necessary rigidity and strength even if forced through incorrect use.
- The fuse-holder bases, where included, are in thermoset plastic (EPIC® ULYSSE) or ceramic-mounted (EPIC® ALUPRES) and wired in the switched outlet. Unless specifically requested, the fuses are not normally included with the equipment.
- The interlocked socket-outlets are available with a rotary control switch, with or without a fuse-holder base as indicated.

EPIC® ULYSSE interlocked socket-outlets in thermoset plastic

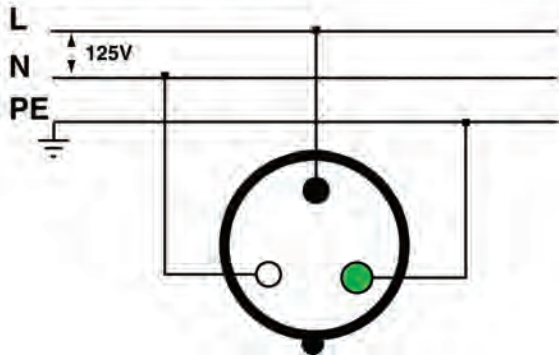
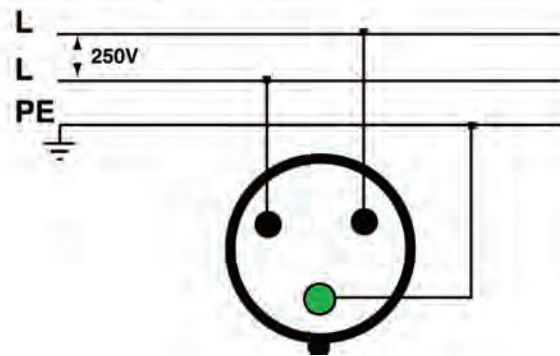
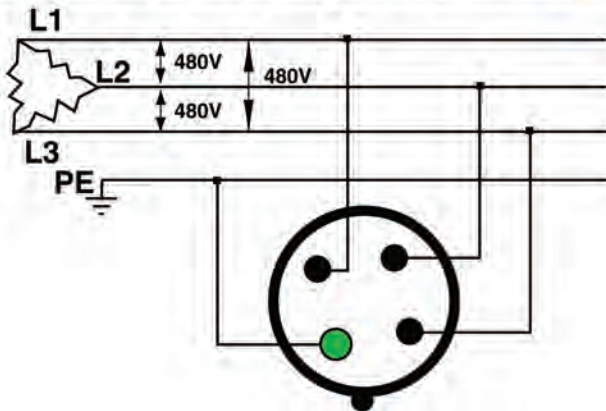
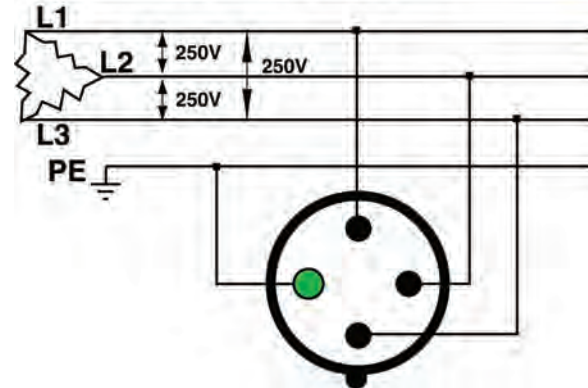
- Bottom boxes and covers are made of very thick reinforced thermoset plastic (SMC or CMC or BMC, according to use) with excellent dimensional stability, non-deformability, and resistance to extremes of heat and fire, to the action of chemical and atmospheric agents, and to mechanical stress even at very low temperatures. All these characteristics in the enclosure material ensures maximum performance in any environment, even when chemically aggressive, and represents perfection in terms of insulating material.
- The transparent covers are made of thick polycarbonate with a long-chain molecular structure. They are self-extinguishing and UV stabilized for maximum resistance to atmospheric and chemical agents.
- Captive screws for closing the covers are made of stainless steel, with gaskets in non-aging elastomer.
- All the enclosures in the EPIC® ULYSSE series are suitable for creating systems in compliance with standards CEI 64-8 and particularly for installation in places at “greater risk in case of fire” (64-8/7, sect. 751). They also permit the fitting out of distribution boards with protection through complete insulation (CEI EN 60439-1) and meet the requirements of the IEC 670 publication.
- The entire EPIC® ULYSSE series is completely modular and ideal for making even complex distribution boards using predefined configurations and standard accessories.

EPIC® ALUPRES interlocked socket-outlets in light alloy

- Bottom boxes and covers are made of UNI-5076 light alloy with a high aluminum content, oven-painted internally and externally over a pretreatment of chromate galvanizing for a maximum resistance to corrosion. The heavy thickness of the material used for making these enclosures assures maximum results in any environment, even when chemically aggressive, and represents perfection in terms of metal structures due to the very high impact resistance.
- Captive screws for closing the covers are made of stainless or tropicalized steel with gaskets in non-aging elastomer.
- Internal and external earth connection screws.
- All the enclosures in the EPIC® ALUPRES series are suitable for creating systems in compliance with CEI 64/8 standards, and particularly for installation in places with “greater risk in case of fire” (64-8/7, sect. 751).
- The entire EPIC® ALUPRES series is completely modular and ideal for making even complex distribution boards using predefined configurations and standard accessories.

Circuit wiring diagrams

North American standard female devices

125V; 1+N+PE, 3-wire, 4h**250V; 2+PE, 3-wire, 6h****480V; 3+PE, 4-wire, 7h, 3phase****250V; 3+PE, 4-wire, 9h, 3phase****120/208V; 3+N+PE, 5-wire, 9h, 3phY**