

Network Media

TURCK offers a complete line of molded industrial networking cordsets to aid network installation, providing easier startup with fewer wiring errors. We are dedicated to providing solutions and support the most common protocols including Ethernet, PROFINET™, DeviceNet™, CANopen, FOUNDATION™ Fieldbus and AS-Interface®.



Industrial Ethernet Cordsets including PROFINET

- TPE jacketing provides excellent flexibility and resistance to flame, oil and moisture
- Shielding, including braid and foil, is effective for both RFI and EMI noise
- Solid conductor is used for horizontal cabling in fixed applications
- Stranded conductor is designed with flex-life for high mobility applications



DeviceNet and CANopen

- Cables are ODVA compliant and available in thin, mid and thick styles
- PVC jacketing is UL PLTC and CSA listed, flame retardant and sunlight resistant
- TPE jacketing is UL and CSA AWM recognized, oil resistant and excellent cold performance



PROFIBUS and PROFIBUS-DP

- Cables meet the requirements for EN 50170 for communication supporting up to 12 Mbps
- PVC jacketing is UL PLTC listed and rated for exposed run (ER) and direct burial (DB), and it is also suitable for use in Class 1, Div 2 hazardous locations
- Polyurethane jacketing is UL and CSA AWM recognized, oil resistant and excellent cold performance



PROFIBUS-PA

- Cordsets meet the requirements of IEC 61158-2 (ISA/SP-50) and PROFIBUS-PA
- Cables are UL ITC/PLTC and CSA listed, FT4 recognized, rated for Exposed Run (ER) and Direct Burial (DB) and suitable for Class 1, Div 2 hazardous locations
- Jacketing is flame retardant, sunlight resistant and available in armored options



FOUNDATION Fieldbus

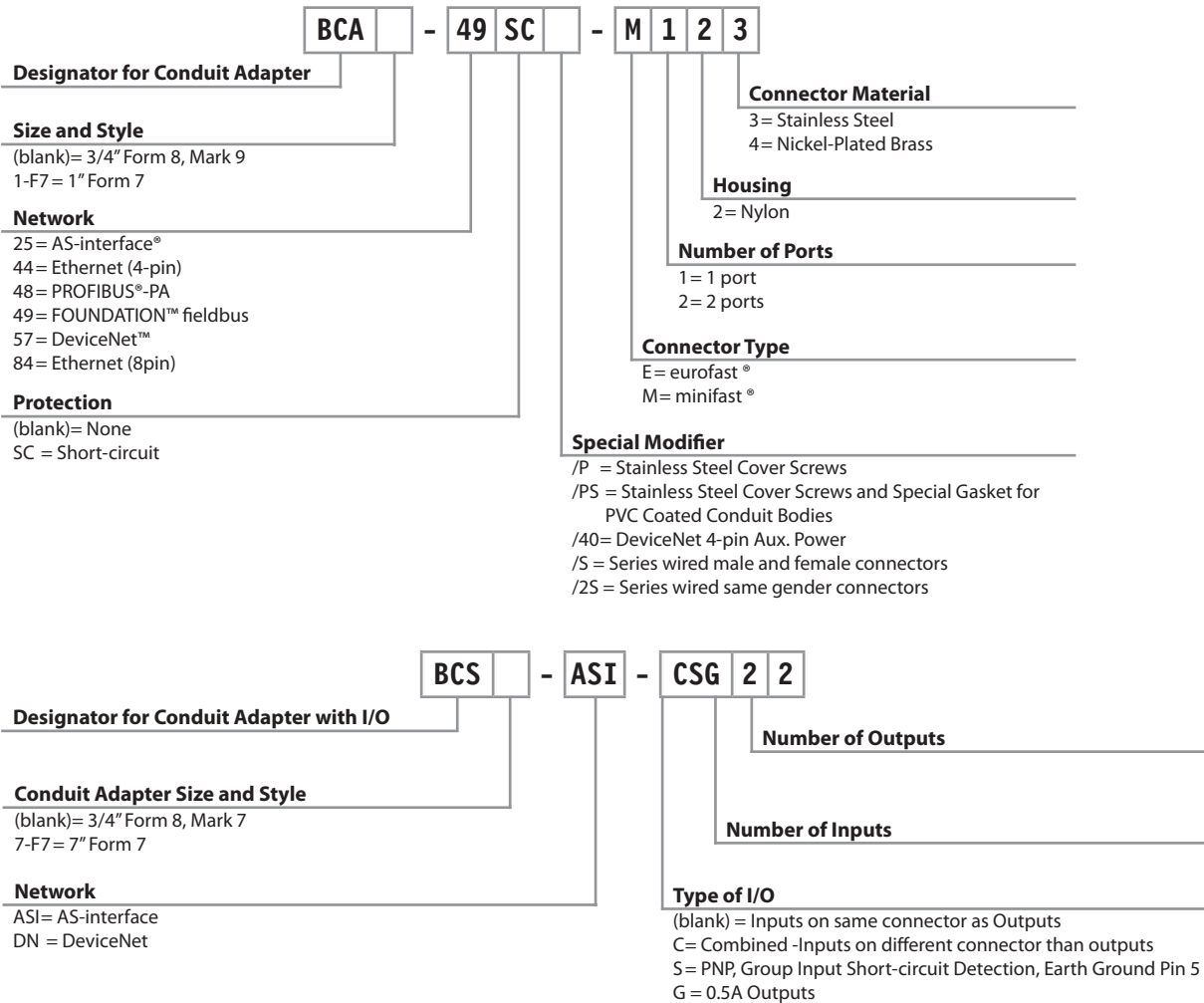
- Cordsets meet the requirements of IEC 61158-2 (ISA/SP-50) and FF-844 Type A
- Cables are UL ITC/PLTC and CSA listed, FT4 recognized, rated for Exposed Run (ER) and Direct Burial (DB) and suitable for Class 1, Div 2 hazardous locations
- Jacketing is flame retardant and sunlight resistant



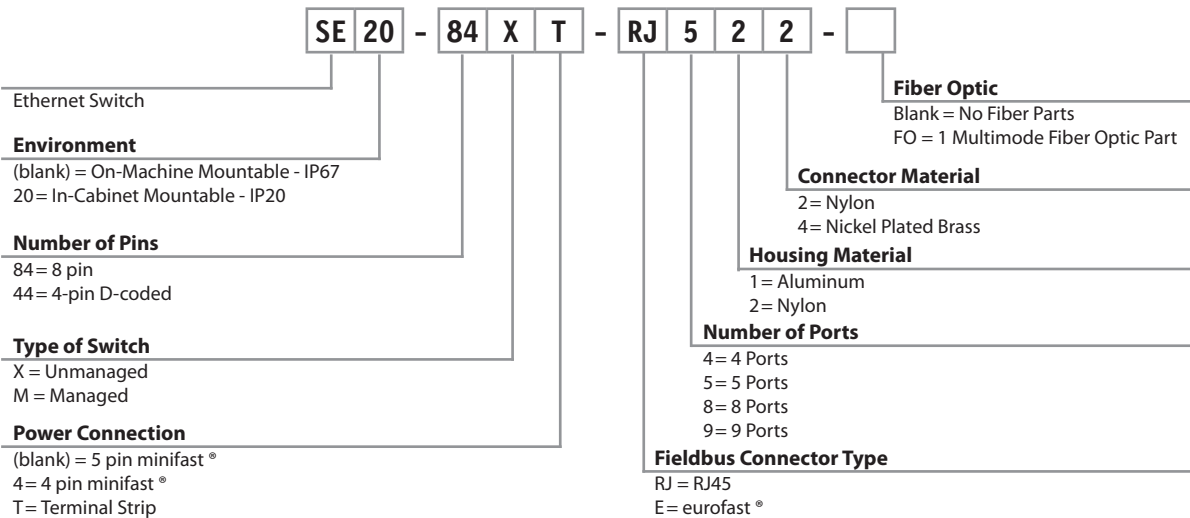
PRODUCT	PAGE
Part number keys	H3
Industrial Ethernet Cordsets including PROFINET	H8
DeviceNet and CANopen	H44
FOUNDATION™ fieldbus	H92
PROFIBUS® -DP/PA	H126
AS-interface®	H164

NETWORK WIRING

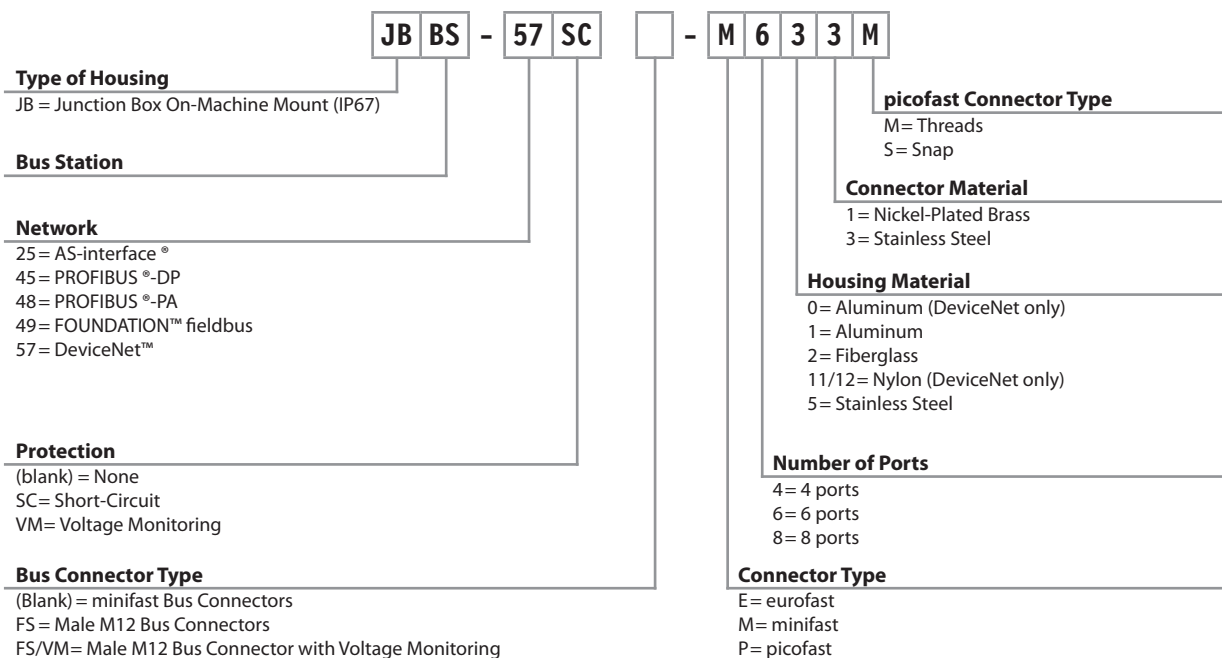
Network Conduit Adapter Part Number Keys



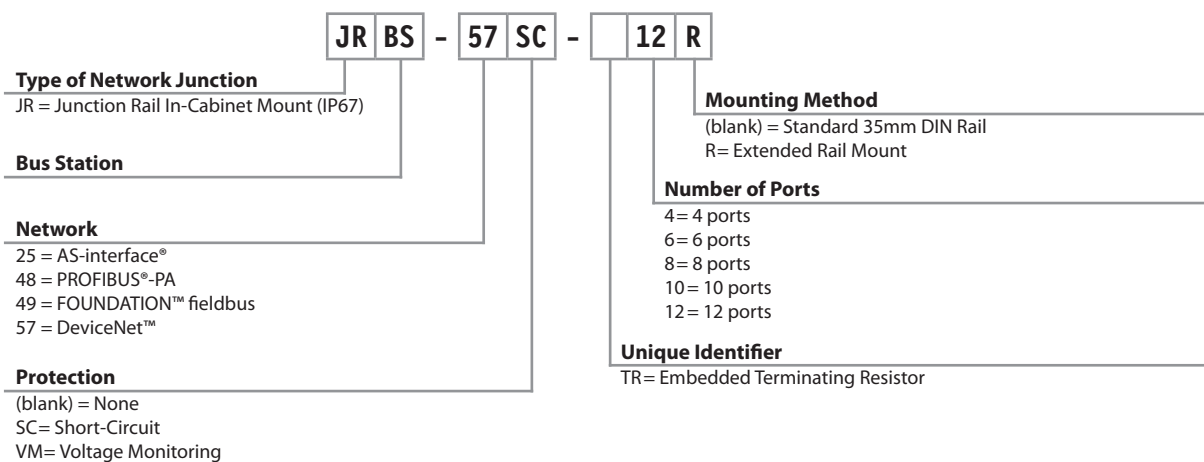
EtherNet Switches Part Number Key



EtherNet On-Machine Network Junctions Part Number Key

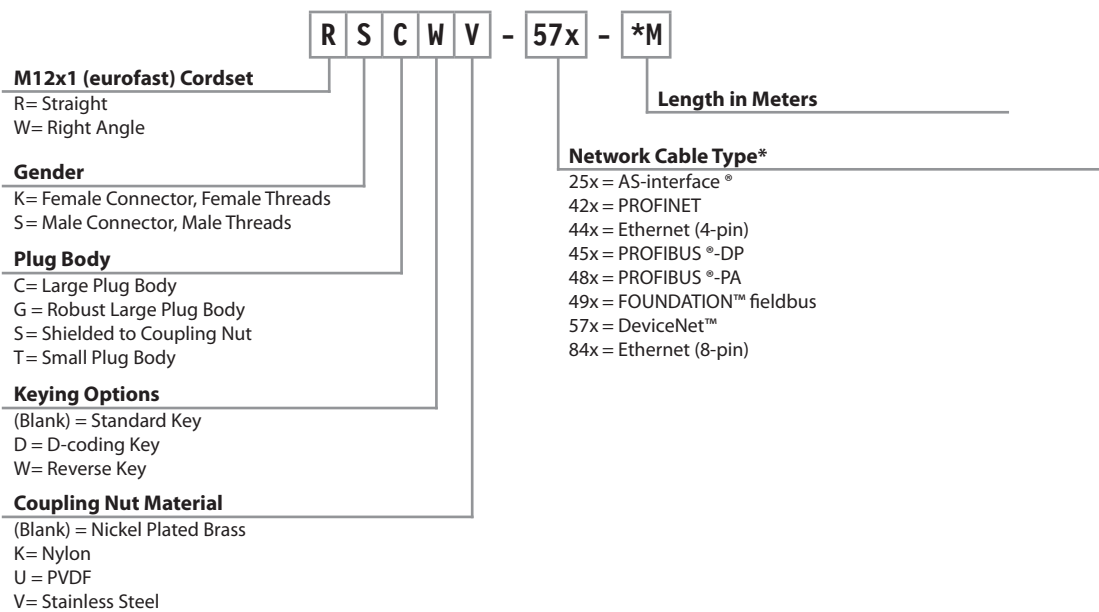


EtherNet In-Cabinet Network Junction Part Number Key

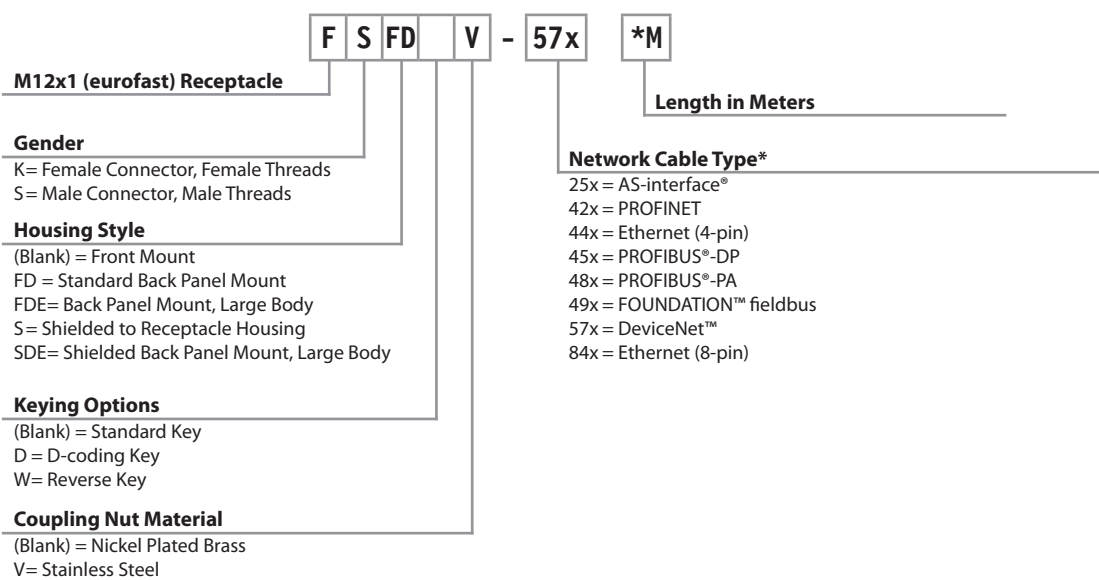


NETWORK WIRING

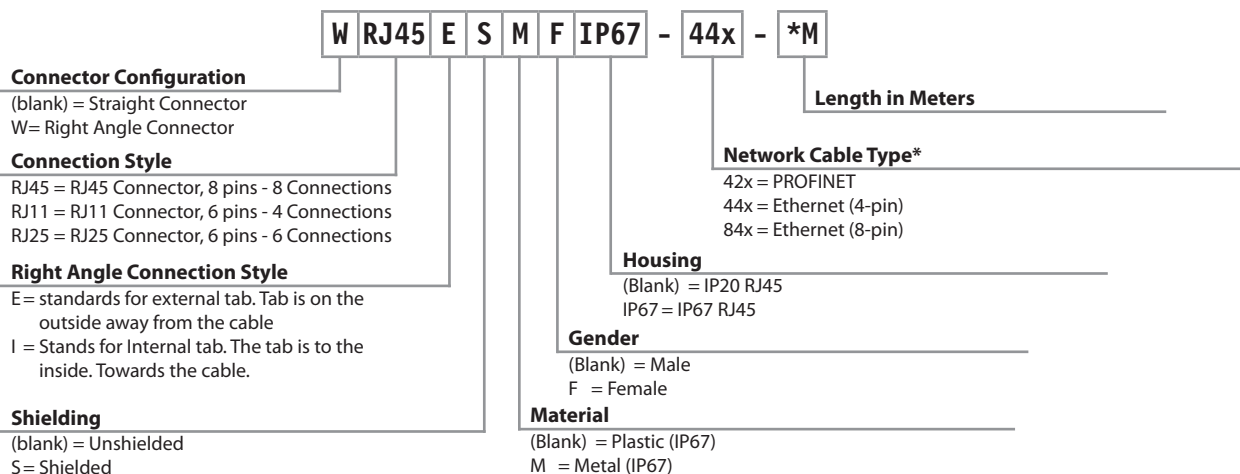
eurofast® Network Cordsets Part Number Key



eurofast Network Receptacle Part Number Key

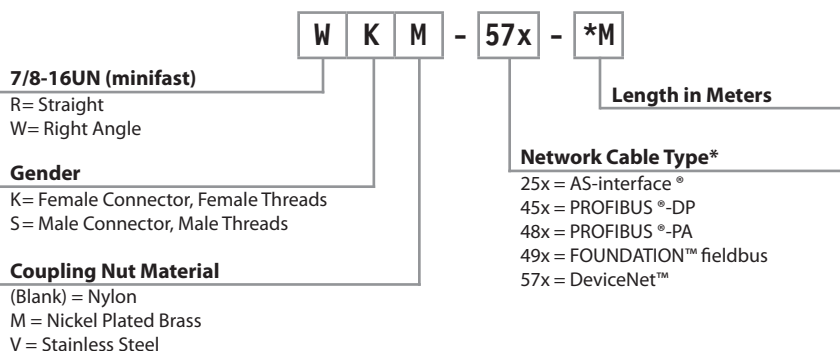


RJ Network Cordsets Part Number Key



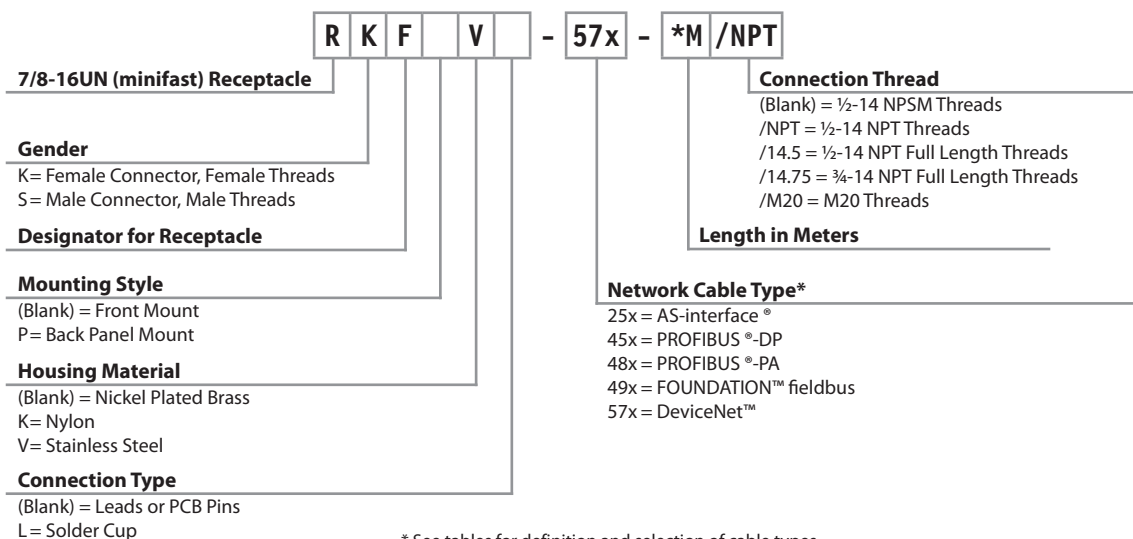
* See tables for definition and selection of cable types

minifast® Network Cordsets Part Number Key



* See tables for definition and selection of cable types

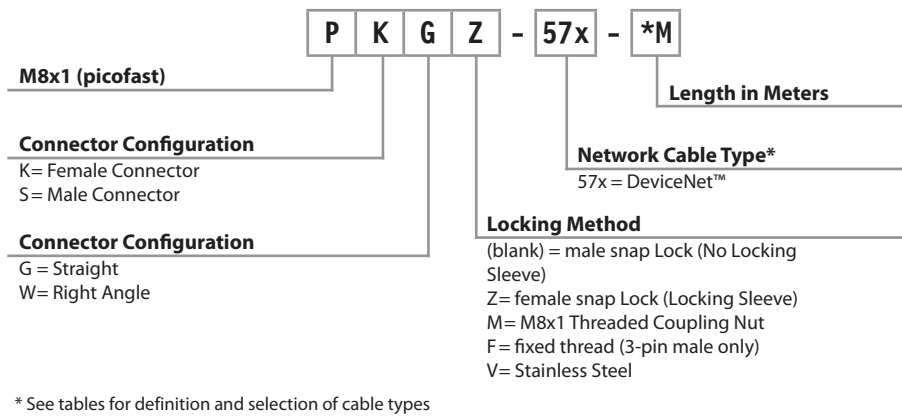
minifast Network Receptacle Part Number Key



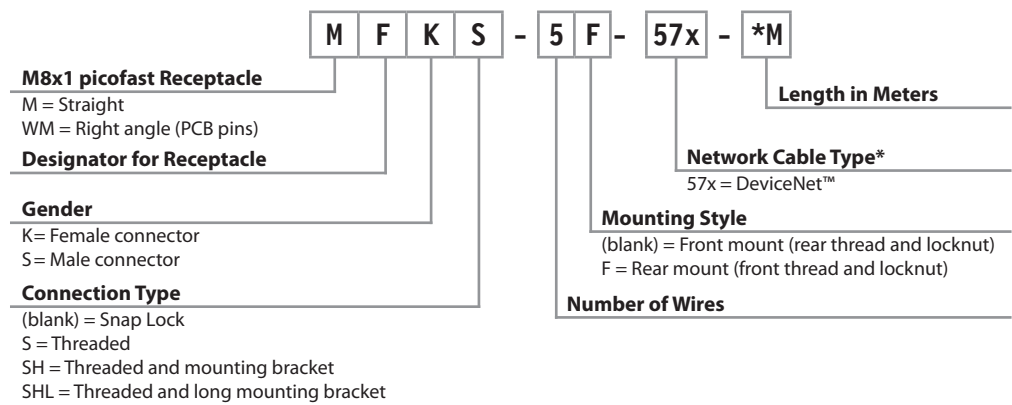
* See tables for definition and selection of cable types

NETWORK WIRING

picofast® Network Cordsets Part Number Key



picofast Network Receptacle Part Number Key



FOUNDATION™ Fieldbus Physical Media Connectivity

Cordsets	H95
Tees	H102
Receptacles	H105
Field Wireables	H109
Adapters/Junctions	H110

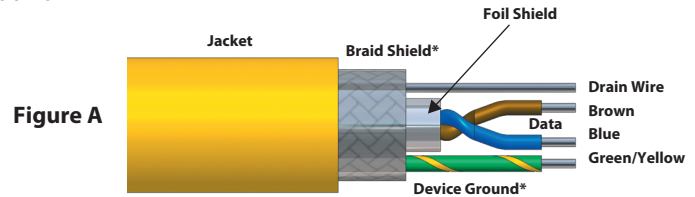
Features

- Cables that meet the requirements of Foundation Fieldbus FF-844 Type A Cable
- ITC/PLTC listed cable (CSA FT4)
- Expose Run (ER) and Direct Buried (DB) listed cable
- Oil resistant II and sunlight resistant
- 7/8 and M12 connectors
- Up to 9 Amps and 600 Volt rated
- IP67/IP69K rated

NETWORK WIRING

Cable Specifications

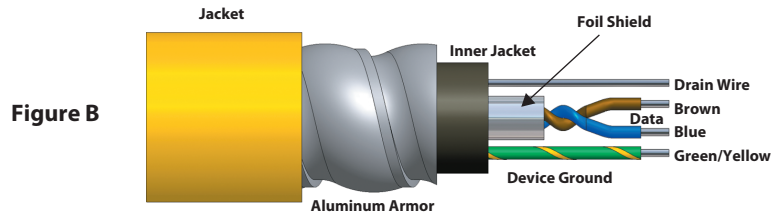
- Cables are compliant with FOUNDATION fieldbus FF-844 Cable Specification for Type A cable, IEC 61158-2 and ISA /SP50
- Cables are Available in 3-wire Versions with a Device Ground or 2-wire Versions



*Available on some cable types

Type A Cable Specifications

- Temperature range: -40 to +105°C
- UV Resistant
- PLTC and ITC Listed (CSA FT4)
- Exposed Run (ER) and Direct Buried (DB) Listed
- Maximum Attenuation at 1.25 f_c (39 kHz) = 3.0 dB/km
- Characteristic Impedance 100 Ω ± 10 Ω @ 31.25 KHz
- Capacitance: 20 pF/Ft nominal
- Inductance: 0.22 μH/Ft. nominal
- Conductor Cross-sectional area (wire size) = nominal 0.75 mm² (#18 AWG) or 1.5 mm² (#16 AWG)
- Shield Coverage =100 %



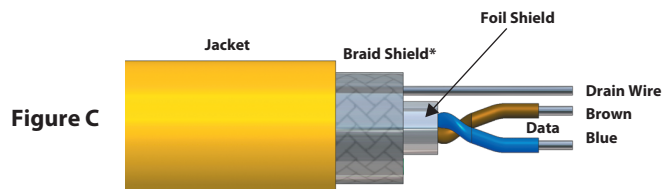
Type	Approvals	Data Pair		Device Ground	Outer Jacket	Shields	Bulk Cable Part Number / Weight/300 M	Figure
		AWG Color Code	DCR (/1000 feet) Insulation	AWG Color Code	Material Color Nominal O.D.	Type Drain Wire		
490 AWM 2586 105°C 600 Volts	NEC/UL ITC PLTC Exposed Run, Direct Burial, CEC/CSA [CMG] AWM I/II A/B FT4	2/18 AWG BU/BN	7.06 Ohms XLPE	18 AWG GN/YE	PVC Yellow 8.4 mm (.330 in)	Foil 20 AWG	RB50693-*M 65 lbs.	A
490B AWM 2586 105°C 600 Volts	NEC/UL ITC PLTC Exposed Run, Direct Burial, CEC/CSA [CMG] AWM I/II A/B FT4	2/18 AWG BU/BN	7.06 Ohms XLPE	18 AWG GN/YE	PVC Blue 8.4 mm (.330 in)	Foil 20 AWG	RB50783-*M 65 lbs.	A
492A 105°C 300 Volts	NEC/UL ITC PLTC Exposed Run, Direct Burial, CEC/CSA [CMG] HLABCD, ACIC	2/18 AWG BU/BN	7.06 Ohms XLPE	18 AWG GN/YE	Armor/PVC Yellow 15.6 mm (0.615 in)	Foil 18 AWG	RB50874-*M 108 lbs. armorfast *	B
492BA 105°C 300 Volts	NEC/UL ITC PLTC Exposed Run, Direct Burial, CEC/CSA [CMG] HLABCD, ACIC	2/18 AWG BU/BN	7.06 Ohms XLPE	18 AWG GN/YE	Armor/PVC Blue 15.6 mm (0.615 in)	Foil 18 AWG	RB50803-*M 108 lbs. armorfast *	B

* Indicates length in meters.

Standard cable spool lengths are 30, 75, 100, 150, 200, 225 and 300 meters.

Cable Specifications

- Cable that Meets the Requirements of ISA/SP50 and FOUNDATION™ fieldbus Requirements for Type A Cable
- Cables are Available in 3-wire Versions with a Device Ground or 2-wire Versions



Type A Cable Specifications

- Temperature range: -40 to +105°C
- UV Resistant
- PLTC and ITC Listed (CSA FT4)
- Exposed Run (ER) and Direct Buried (DB) Listed
- Maximum Attenuation at 1.25 f_c (39 kHz) = 3.0 dB/km
- Characteristic Impedance 100 Ω ± 10 Ω @ 31.25 KHz
- Capacitance: 20 pF/Ft nominal
- Inductance: 0.22 μH/Ft. nominal
- Conductor Cross-sectional area (wire size) = nominal 0.75 mm² (#18 AWG) or 1.5 mm² (#16 AWG)
- Shield Coverage = 100 %

Type	Approvals	Data Pair		Device Ground	Outer Jacket	Shields	Bulk Cable Part Number / Weight/300 M	Figure
		AWG Color Code	DCR (/1000 feet) Insulation	AWG Color Code	Material Color Nominal O.D.	Type Drain Wire		
493 AWM 2517 105°C 300 Volts	NEC/UL ITC PLTC Exposed Run, Direct Burial, CEC/CSA [CMG] HLABCD	2/18 AWG BU/BN	7.06 Ohms XLPE	None	PVC Yellow 8.5 mm (.335 in)	Foil/Braid 20 AWG	RB50784-*M 62 lbs.	C
493B AWM 2517 105°C 300 Volts	NEC/UL ITC PLTC Exposed Run, Direct Burial, CEC/CSA [CMG] HLABCD	2/18 AWG BU/BN	7.06 Ohms XLPE	None	PVC Blue 8.5 mm (.335 in)	Foil/Braid 20 AWG	RB50786-*M 62 lbs.	C
493O AWM 2517 105°C 300 Volts	NEC ITC PLTC Exposed Run, Direct Burial CEC [CMG] AWM I/II A/B FT4	2/18 AWG BU/BN	7.06 Ohms XLPE	None	PVC Orange 8.5 mm (.335 in)	Foil/Braid 20 AWG	RB50785-*M 59 lbs.	C
496 AWM 2517 105°C 600 Volts	NEC ITC PLTC Exposed Run, Direct Burial CEC [CMG] AWM I/II A/B FT4	2/16 AWG BU/BN	4.5 Ohms XLPE	None	PVC Yellow 9.6 mm (.378 in)	Foil 18 AWG	RB50891-*M 64 lbs.	C
496BK AWM 2517 105°C 300 Volts	NEC ITC PLTC Exposed Run, Direct Burial CEC [CMG] AWM I/II A/B FT4	2/16 AWG BU/BN	4.5 Ohms XLPE	None	PVC Black 9.6 mm (.378 in)	Foil 18 AWG	RB51300-*M 64 lbs.	C

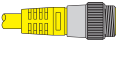
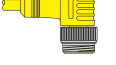
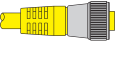
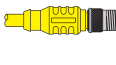
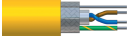
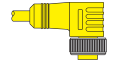
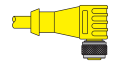
* Indicates length in meters.

Standard cable spool lengths are 30, 75, 100, 150, 200, 225 and 300 meters.

FOUNDATION™ fieldbus

NETWORK WIRING

Cable and Cordset Selection Matrix

		minifast®				eurofast®
		Pin (Male)		Socket (Female)		Pin (Male)
		1  RSV	2  WSV	3  RKV	4  WKV	7  RSCV
minifast	Bare 	RSV 49x-*M	WSV 49x-*M	RKV 49x-*M	WKV 49x-*M	RSCV 49x-*M
	1 RSV 	RSV RSV 49x-*M	RSV WSV 49x-*M	RSV RKV 49x-*M	RSV WKV 49x-*M	RSV RSCV 49x-*M
	2 WSV 		WSV WSV 49x-*M	WSV RKV 49x-*M	WSV WKV 49x-*M	WSV RSCV 49x-*M
	3 RKV 			RKV RKV 49x-*M	RKV WKV 49x-*M	RKV RSCV 49x-*M
	4 WKV 				WKV WKV 49x-*M	WKV RSCV 49x-*M
	7 RSCV 					RSCV RSCV 49x-*M
	8 WSCV 					
	9 RKCV 					
eurofast	10 WKCV 					

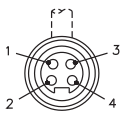
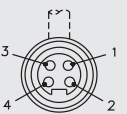
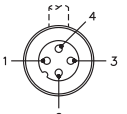
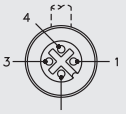
See pages H97 - H98 for dimensional drawings.

* Indicates length in meters.

x Indicates cable type.

Standard cable lengths are 1, 2, 4, 6, 8, 10, 15....50 Meters. Consult factory for other lengths.

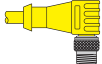
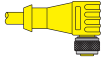
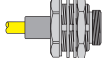
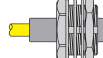
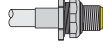
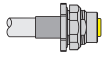
For stainless steel coupling nuts change part number RSM ... to RSV, WSM ... to WSV. For **eurofast armorfast®** cable RSC ... to RSA.

minifast		Pinouts	eurofast	
Male	Female		Male	Female
		1. Blue (- Voltage) 2. Brown (+ Voltage) 3. Bare (Shield Drain Wire) 4. Green/Yellow (Ground)		

DISTRIBUTED I/O SALES GUIDE

Cable and Cordset Selection Matrix



eurofast®			minifast® Bulkhead		eurofast Bulkhead	
Pin (Male)	Socket (Female)		Pin (Male)	Socket (Female)	Pin (Male)	Socket (Female)
8  WSCV	9  RKCVC	10  WKCVC	5  RSFPV	6  RKFPV	11  FSFDV	12  FKFDV
WSCV 49x-*M	RKCVC 49x-*M	WKCVC 49x-*M	RSFPV 49x-*M	RKFPV 49x-*M	FSFDV 49x-*M	FKFDV 49x-*M
RSV WSCV 49x-*M	RSV RKCVC 49x-*M	RSV WKCVC 49x-*M	RSV RSFPV 49x-*M	RSV RKFPV 49x-*M	RSV FSFDV 49x-*M	RSV FKFDV 49x-*M
WSV WSCV 49x-*M	WSV RKCVC 49x-*M	WSV WKCVC 49x-*M	WSV RSFPV 49x-*M	WSV RKFPV 49x-*M	WSV FSFDV 49x-*M	WSV FKFDV 49x-*M
RKV WSCV 49x-*M	RKV RKCVC 49x-*M	RKV WKCVC 49x-*M	RKV RSFPV 49x-*M	RKV RKFPV 49x-*M	RKV FSFDV 49x-*M	RKV FKFDV 49x-*M
WKV WSCV 49x-*M	WKV RKCVC 49x-*M	WKV WKCVC 49x-*M	WKV RSFPV 49x-*M	WKV RKFPV 49x-*M	WKV FSFDV 49x-*M	WKV FKFDV 49x-*M
RSCV WSCV 49x-*M	RSCV RKCVC 49x-*M	RSCV WKCVC 49x-*M	RSCV RSFPV 49x-*M	RSCV RKFPV 49x-*M	RSCV FSFDV 49x-*M	RSCV FKFDV 49x-*M
WSCV WSCV 49x-*M	WSCV RKCVC 49x-*M	WSCV WKCVC 49x-*M	WSCV RSFPV 49x-*M	WSCV RKFPV 49x-*M	WSCV FSFDV 49x-*M	WSCV FKFDV 49x-*M
	RKCVC RKCVC 49x-*M	RKCVC WKCVC 49x-*M	RKCVC RSFPV 49x-*M	RKCVC RKFPV 49x-*M	RKCVC FSFDV 49x-*M	RKCVC FKFDV 49x-*M
		WKCVC WKCVC 49x-*M	WKCVC RSFPV 49x-*M	WKCVC RKFPV 49x-*M	WKCVC FSFDV 49x-*M	WKCVC FKFDV 49x-*M

FOUNDATION™ fieldbus

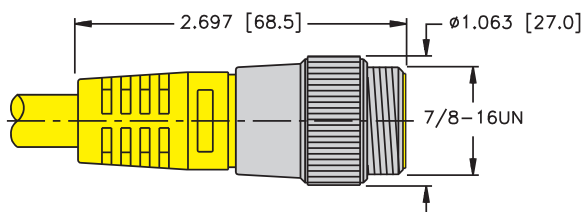
NETWORK WIRING

Cordset and Receptacle Connector Dimensions

Specifications

Overmold:	TPU
Coupling Nut:	Nickel Plated CuZn or Stainless Steel
Contact Carrier:	TPU
Contacts:	Gold Plated CuZn
Protection:	NEMA 1, 3, 4, 6P and IEC IP 68
Rated Voltage:	300 V
Rated Current:	9 A
Ambient Temperature:	-40° to +105°C (-40° to +221°F)

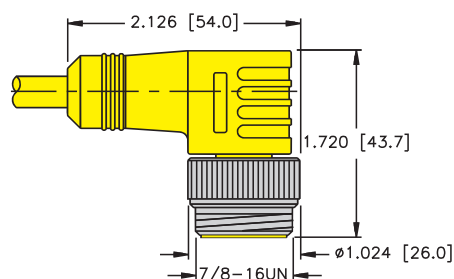
1



RSV ..

Page H95

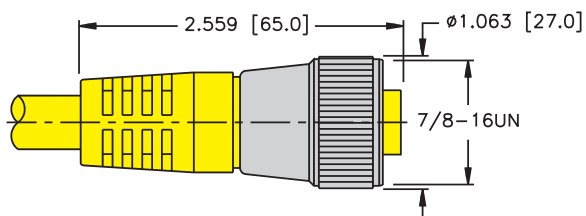
2



WSV ..

Page H95

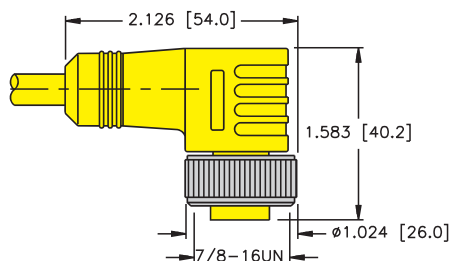
3



RKV ..

Page H95

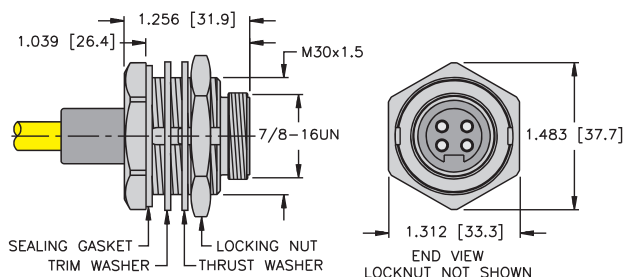
4



WKV ..

Page H95

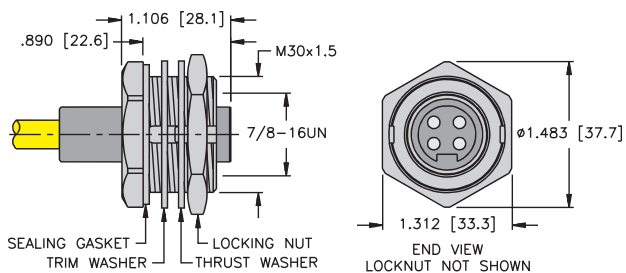
5



RSFPV ..

Page H95

6



RKFPV ..

Page H95

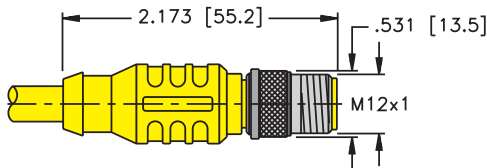
DISTRIBUTED I/O SALES GUIDE

Cordset and Receptacle Connector Dimensions

Specifications

Overmold:	TPU
Coupling Nut:	Nickel Plated CuZn or Stainless Steel
Contact Carrier:	TPU or POM (Nylon)
Contacts:	Gold Plated CuZn
Protection:	NEMA 1, 3, 4, 6P and IEC IP 68
Rated Voltage:	250 V
Rated Current:	4 A
Ambient Temperature:	-40° to +105°C (-40° to +221°F)

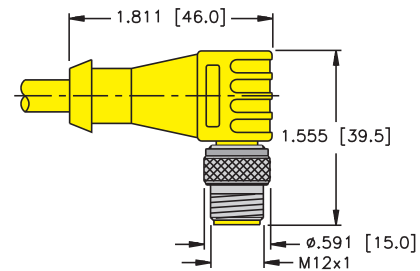
7



RSCV ..

Page H95

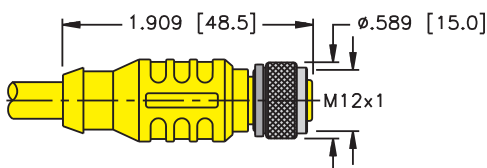
8



WSCV ..

Page H95

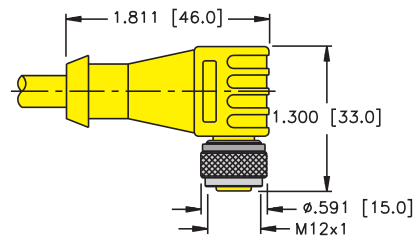
9



RKC ..

Page H95

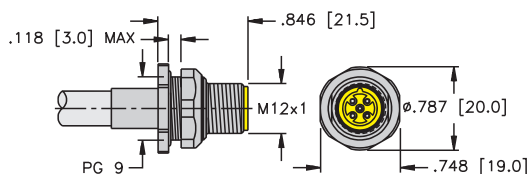
10



WKC ..

Page H95

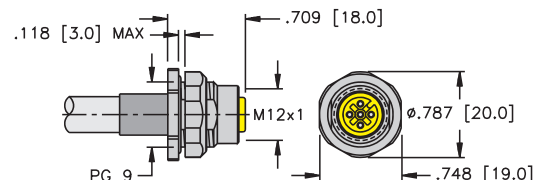
11



FSFDV ..

Page H95

12



FKFDV ..

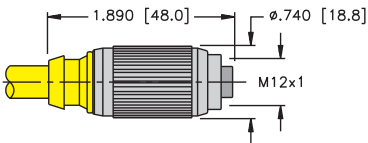
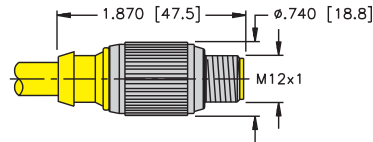
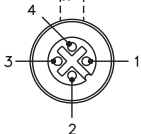
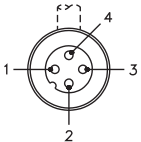
Page H95

NETWORK WIRING

eurofast® Heavy Duty Cordsets

- Heavy Duty Coupling Nut Completely Supports the Molded Plug Body
- Provides Superior Strength



Housing Style	Female Part Number	Male Part Number	Features	Pinouts
RKGV..  RSGV.. 	RKGV 49x-*M	RSGV 49x-*M	TPU Nickel plated CuZn or stainless steel, 250 V, 4 A, -40° to +105°C, heavy coupling nut completely supports the molded plug body to provide superior strength	Female  Male 

* Indicates length in meters.
 x Indicates cable type.
 For nickel plated brass coupling nut change: RSGV ... to RSG ... or RKGV ... to RKG ...

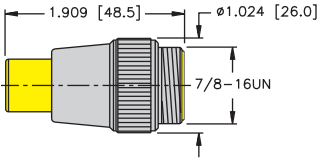
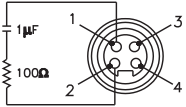
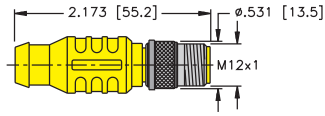
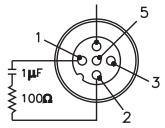
DISTRIBUTED I/O SALES GUIDE



Terminating Resistors

- Terminating Resistors Stabilize and Minimize Reflections on the Bus Line
- A Terminating Resistor is Required at the Beginning and End of the Main Bus Line



Housing Style	Part Number	Features	Pinouts
	RSV 49-TR	Nickel plated brass or stainless steel, 250 V, 4 A, -40° to +75°C, male <i>minifast</i> connector	Male 
	RSEV 49-TR	Nickel plated brass or stainless steel, 250 V, 4 A, -40° to +75°C, male <i>eurofast</i> connector	Male 

NETWORK WIRING

Feed Through Connectors

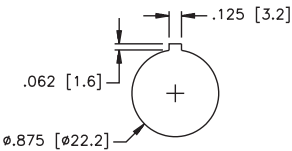
- Receptacles Provide Transition from Male to Female Connectors
- Available for Bulkhead and Feed Through Applications



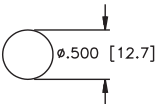
Housing Style	Part Number	Features	Pinouts
	RSFV RKFV 49/22	Nickel plated CuZn or stainless steel, 300 V, 9 A, -40° to +75°C, straight male/female feed-through, for use with minifast cordsets	Male Female
	FKV FSV 49/M12	Nickel plated CuZn or stainless steel, 250 V, 4 A, -40° to +75°C, straight male/female connector, for use with eurofast cordsets	Male Female

Standard housing material is nickel plated brass. "RSF RKF .."; "RSFV RKFV .." indicates stainless steel housing.

Panel Cutout
RSF RKF 49/22



Panel Cutout
FKM FS 49/M12



TURCK
works

Industrial
Automation

- **Creates a Drop or Branch from the Main Bus Line**
- ***minifast*® Connectors on Bus Line**
- ***minifast* or *eurofast*® Connectors on Dropline**



Housing Style	Part Number	Application	Wiring Diagrams
Technical drawing of the RSV-2RKV 49 housing style. The front view shows a yellow housing with a central mounting point and two side ports. Dimensions include a total width of 2.874 [73.0] REF, a central port diameter of $\phi 1.024$ [26.0], and a side port diameter of $\phi 1.024$ [26.0]. The side view shows a height of 1.102 [28.0], a side port diameter of $\phi 1.024$ [26.0], and a mounting hole diameter of $\phi 1.024$ [26.0].	RSV-2RKV 49	TPU, 250 V, 4 A, -40° to +75°C, data, ground, shield stainless steel coupling nuts	Wiring diagram for RSV-2RKV 49. It shows a male connector with 4 pins (1, 2, 3, 4) and a female connector with 4 pins (1, 2, 3, 4). The connections are: Male 1 to Female 1, Male 2 to Female 2, Male 3 to Female 3, and Male 4 to Female 4.
Technical drawing of the RSV FKV RKV 49 housing style. The front view shows a yellow housing with a central mounting point and two side ports. Dimensions include a total width of 2.874 [73.0], a central port diameter of $\phi 1.024$ [26.0], and a side port diameter of $\phi 1.024$ [26.0]. The side view shows a height of 1.102 [28.0], a side port diameter of $\phi 1.024$ [26.0], and a mounting hole diameter of $\phi 1.024$ [26.0].	RSV FKV RKV 49	TPU, 250 V, 4 A, -40° to +75°C, data, ground, shield stainless steel coupling nuts	Wiring diagram for RSV FKV RKV 49. It shows a male connector with 4 pins (1, 2, 3, 4) and a female connector with 4 pins (1, 2, 3, 4). The connections are: Male 1 to Female 1, Male 2 to Female 2, Male 3 to Female 3, and Male 4 to Female 4.
Technical drawing of the RSCV 2RKCV 49 housing style. The front view shows a yellow housing with a central mounting point and two side ports. Dimensions include a total width of 2.161 [54.9], a central port diameter of $\phi 1.024$ [26.0], and a side port diameter of $\phi 1.024$ [26.0]. The side view shows a height of 1.102 [28.0], a side port diameter of $\phi 1.024$ [26.0], and a mounting hole diameter of $\phi 1.024$ [26.0].	RSCV 2RKCV 49	TPU, 250 V, 4 A, -40° to +75°C, stainless steel coupling nuts	Wiring diagram for RSCV 2RKCV 49. It shows a male connector with 4 pins (1, 2, 3, 4) and a female connector with 4 pins (1, 2, 3, 4). The connections are: Male 1 to Female 1, Male 2 to Female 2, Male 3 to Female 3, and Male 4 to Female 4.
Technical drawing of the RSCV WKCV 49 housing style. The front view shows a yellow housing with a central mounting point and two side ports. Dimensions include a total width of 1.634 [41.5], a central port diameter of $\phi 1.024$ [26.0], and a side port diameter of $\phi 1.024$ [26.0]. The side view shows a height of 1.102 [28.0], a side port diameter of $\phi 1.024$ [26.0], and a mounting hole diameter of $\phi 1.024$ [26.0].	RSCV WKCV 49	TPU, 250 V, 4 A, -40° to +75°C, stainless steel coupling nuts	Wiring diagram for RSCV WKCV 49. It shows a male connector with 4 pins (1, 2, 3, 4) and a female connector with 4 pins (1, 2, 3, 4). The connections are: Male 1 to Female 1, Male 2 to Female 2, Male 3 to Female 3, and Male 4 to Female 4.
Technical drawing of the RSCV RKCV 49 housing style. The front view shows a yellow housing with a central mounting point and two side ports. Dimensions include a total width of 2.205 [56.0], a central port diameter of $\phi 1.024$ [26.0], and a side port diameter of $\phi 1.024$ [26.0]. The side view shows a height of 1.102 [28.0], a side port diameter of $\phi 1.024$ [26.0], and a mounting hole diameter of $\phi 1.024$ [26.0].	RSCV RKCV 49	TPU, 250 V, 4 A, -40° to +75°C, stainless steel coupling nuts	Wiring diagram for RSCV RKCV 49. It shows a male connector with 4 pins (1, 2, 3, 4) and a female connector with 4 pins (1, 2, 3, 4). The connections are: Male 1 to Female 1, Male 2 to Female 2, Male 3 to Female 3, and Male 4 to Female 4.

<i>minifast</i>		<i>eurofast</i>	
Male	Female	Male	Female

NETWORK WIRING

Gender Changers and Elbow Connectors

- Allows Quick and Easy Changes from Male to Female *minifast*® Connectors



Housing	Part Number	Specs	Application	Wiring Diagrams
	RSV RSV 49	TPU 250 V, 4 A -40° to +75°C	Male <i>minifast</i> Gender Changer Changes female cordset to male receptacle	
	RKV RKV 49		Female <i>minifast</i> Gender Changer Changes female cordset to male receptacle	
	WSV RKV 49		<i>minifast</i> Elbow Right angle male to female connector	

Pinouts

<i>minifast</i>	
Male	Female

DISTRIBUTED I/O SALES GUIDE

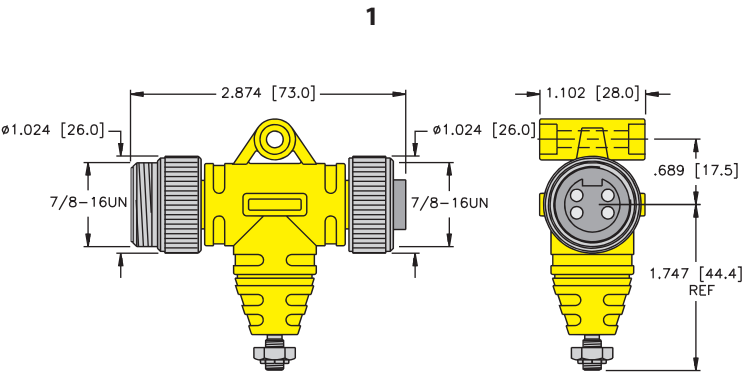


Surge Suppressor

- Protects Data Communication Lines (V+ and V-)
- Absorbs the Front End of the Transient, Responding in Less Than a Nanosecond
- Diverts the Surge Energy to Ground
- Automatically Resets and waits for Next Surge



Housing	Part Number	Specs	Application	Pinouts
See Drawing 1	RSV RKV 49 SS	Electrical Contact Carrier Material Thermoplastic Polyurethane Mold Material/Color Thermoplastic Polyurethane/Yellow Contact Material/Plating Gold-Plated Brass Coupling Nut Material Stainless Steel Max. Operating Voltage 36 VDC Max. Operating Current 600 mA Max. Clamping Voltage 58 V Surge Current (8/20µs ≤5 shots) 20kA Temperature Rating -40° to +85°C Protection Class (VDE 0110 b) Meets NEMA 1,3,4,6,13 Insulation Resistance ≥40 MΩ Capacitance Between V+, V- at 24 V 0.4nF Mechanical Ground stud 10-32 stainless steel Operating temperature -40° to +85°C	Male and Female <i>minifast</i> ®, 4-pin	Male Female



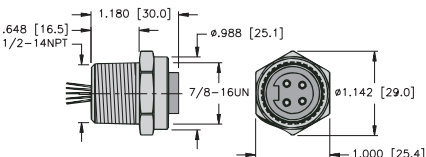
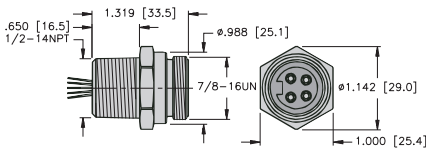
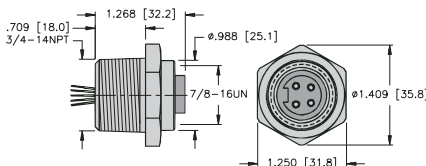
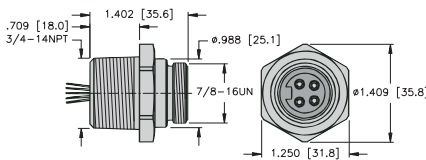
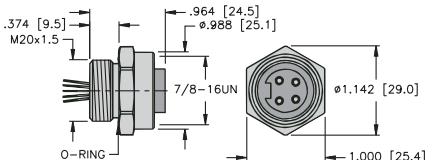
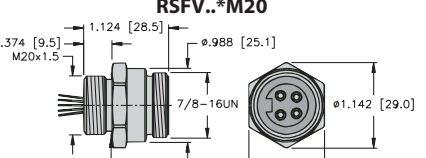
FOUNDATION™ fieldbus

NETWORK WIRING

(7/8-16UN) minifast® Receptacles

- Provides Quick Connection to Field Devices
- Available for 1/2-14NPT, 1/2-14NPSM, 3/4-14NPT and M20 Threads



Housing Style	Female Part Number	Male Part Number	Features	Pinout	
RKFV../14.5 	RK FV 49-*M/14.5	RS FV 49-*M/14.5	Nickel plated CuZn or stainless steel, 300 V, 9 A, -40° to +105°C, 1/2-14NPT full length threads	Female 	
RSFV../14.5 					
RKFV../14.75 	RK FV 49-*M/14.75	RS FV 49-*M/14.75	Nickel plated CuZn or stainless steel, 300 V, 9 A, -40° to +105°C, 3/4-14NPT full length threads	Male 	
RSFV../14.75 					
RKFV..*M20 	RK FV 49-*M/M20	RS FV 49-*M/M20	Nickel plated CuZn or stainless steel, 300 V, 9 A, -40° to +105°C, M20x1.5 threads		
RSFV..*M20 					

Standard cable length is 0.5 meters. Consult factory for other lengths.
Standard housing material is nickel plated brass housing. "RK FV .."; "RK FV .." indicates 316 stainless steel.
For locknuts to be included, add "W/LN" to the end of the part number.

DISTRIBUTED I/O SALES GUIDE

(7/8-16UN) minifast® Receptacles



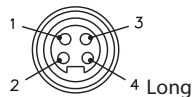
- Provides Quick Connection to Field Devices
- Available for 1/2-14NPT, 1/2-14NPSM, 3/4-14NPT and M20 Threads



Housing Style	Female Part Number	Male Part Number	Features	Pinout
RKFV..*M RSFV..*M	RKFV 49-*M	RSFV 49-*M	Nickel plated CuZn or stainless steel, 300 V, 9 A, -40° to +105°C, 1/2-14NPSM threads	Female Male

Standard cable length is 0.5 meters. Consult factory for other lengths.
Standard housing material is nickel plated brass housing. "RKF .."; "RKFV .." indicates 316 stainless steel .
For locknuts to be included, add "W/LN" to the end of the part number.

Male End View



1 = BU (-voltage)
2 = BN (+ voltage)
3 = N/C
4 = GN/YE (ground)

49 Series

Male End View



1 = BU
2 = BN
3 = N/C
4 = N/C

49T Series

Male End View



1 = BU (-voltage)
2 = BN (+ voltage)
3 = GY
4 = N/C

49D Series

Male End View



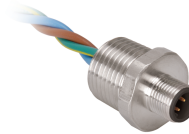
1 = BU (-voltage)
2 = BN (+ voltage)
3 = GY
4 = GN/YE (ground)

49E Series

NETWORK WIRING

(M12x1) eurofast® Female Receptacles

- Mounted for Quick Connection to Enclosures
- Available for 1/2-14NPT, 1/2-14NPSM, 3/4-14NPT and M20 Threads



Housing	Female Part Number	Male Part Number	Application	Pinout
FKV../14.5 FSV../14.5	FKV 49-*M/14.5	FSV 49-*M/14.5	Nickel plated CuZn or stainless steel, 250 V, 4 A, -40° to +105°C, 1/2-14NPT full length threads	Female
FKV../14.75 FSV../14.75	FKV 49-*M/14.75	FSV 49-*M/14.75	Nickel plated CuZn or stainless steel, 250 V, 4 A, -40° to +105°C, 3/4-14NPT full length threads	
FKV 49-*M/M20 24	FKV 49-*M/M20	FSV 49-*M/M20	Nickel plated CuZn or stainless steel, 250 V, 4 A, -40° to +105°C, M20x1.5 Threads	Male

Standard cable length is 0.5 meters. Consult factory for other lengths.

Standard housing material is stainless steel. "RKF .."; "RKfV .." indicates 316 nickel plated brass housing.

DISTRIBUTED I/O SALES GUIDE

(M12x1) eurofast® Female Receptacles



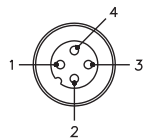
- Mounted for Quick Connection to Enclosures
- Available for 1/2-14NPT, 1/2-14NPSM, 3/4-14NPT and M20 Threads



Housing	Female Part Number	Male Part Number	Features	Pinout
FKV..*M FSV..*M	FKV 49-*M	FSV 49-*M	Nickel plated CuZn or stainless steel, 250 V, 4 A, -40° to +105°C, 1/2-14NPSM threads	Female Male

Standard cable length is 0.5 meters. Consult factory for other lengths.
Receptacles require a 13/16" (21.0 mm) clearance hole for panel mounting.
Standard housing material is stainless steel. "RKF .."; "RKFV .." indicates 316 nickel plated brass housing.

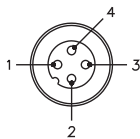
Male End View



1 = BU (-voltage)
2 = BN (+ voltage)
3 = N/C
4 = GN/YE (ground)

49 Series

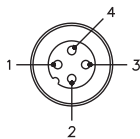
Male End View



1 = BU (-voltage)
2 = BN (+ voltage)
3 = N/C
4 = N/C

49T Series

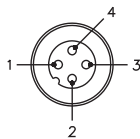
Male End View



1 = BU (-voltage)
2 = BN (+ voltage)
3 = GY
4 = N/C

49D Series

Male End View



1 = BU (-voltage)
2 = BN (+ voltage)
3 = GY
4 = GN/YE (ground)

49E Series

FOUNDATION™ fieldbus

NETWORK WIRING

minifast® Field Wireable Connectors with Labels

- Allows for Quick Connection when Pre-Molded Cables are not Available
- Available for Male and Female Connectors
- Color Coded Wire Connection for FOUNDATION fieldbus



Housing Style	Female Part Number	Male Part Number	Features	Pinouts
	BKV 4140-0/11/FF	BSV 4140-0/11/FF	Glass filled nylon, stainless steel coupling nut, PG 9 cable gland, accepts 8-10 mm cable diameter, screw terminals, 90°C, 300 V, 9 A, mates with standard, 4-pin cordsets and receptacles	Female
	BKV 4140-0/16/FF	BSV 4140-0/16/FF	Glass filled nylon, stainless steel coupling nut, PG 16 cable gland, accepts 12-14 mm cable diameter, screw terminals, 90°C, 600 V, 9 A, mates with standard, 4-pin cordsets and receptacles	Male

Gender Changer

- Allows Quick and Easy Changes from Male to Female and *minifast*® to *eurofast*® Connectors



Housing Style	Part Number	Features	Wiring Diagram
	RSM 49-FK 4.4	Nickel plated CuZn or stainless steel, 250 V, 4 A, -40° to +75°C, female <i>eurofast</i> , male <i>minifast</i> , 4-pin	

Pinouts

<i>minifast</i>	<i>eurofast</i>
Male	Female

DISTRIBUTED I/O SALES GUIDE



FOUNDATION™ fieldbus, Conduit Adapters

- Converts Standard Conduits to Quick Disconnect
- Fiberglass Reinforced Nylon Housings
- Nickel Plated Brass Connectors Available
- 3/4" Form 8 or Mark 9
- 1" Form 7 Available Upon Request
- Gasket and Mounting Screws Provided
- IP67



Housing Style	1 Port Part Number	2 Port Part Number	Specifications	Pinout
	BCA-49-E123	BCA-49-E223	3/4" Form 8 or Mark 9, M12 x 1 stainless steel connectors	
	BCA-49-M123	BCA-49-M223	3/4" Form 8 or Mark 9, 7/8"-16UN stainless steel connectors	
	BCA-49SC-M123	BCA-49SC-M223	Short circuit protection, 3/4" Form 8 or Mark 9, 7/8"-16UN stainless steel connectors	

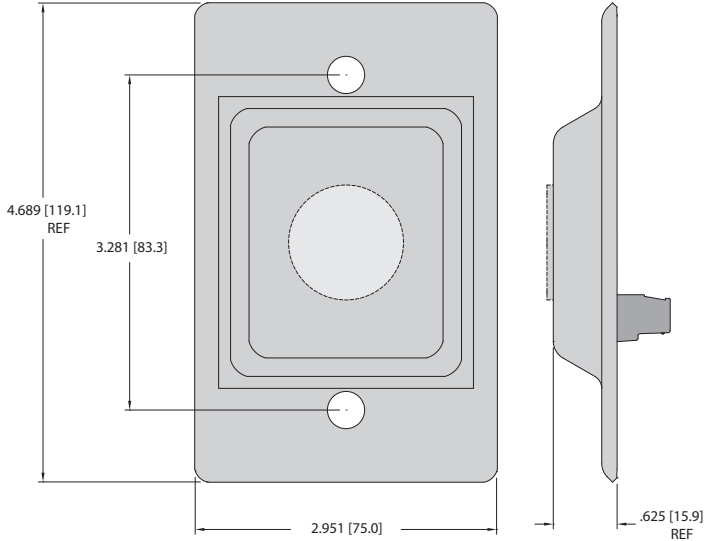
FOUNDATION fieldbus™ Media

NETWORK WIRING

FOUNDATION™ fieldbus, Wall Plate Adapters

- Attaches to Standard Single Gang Electrical Box
- Stainless Steel with Stainless Steel Connectors
- Gasket and Mounting Screws Provided
- IP67



Housing Style	Part Number	Specifications	Pinout
 Technical drawing of the wall plate adapter showing front and side views with dimensions: - Overall height: 4.689 [119.1] REF - Inner square opening side length: 3.281 [83.3] - Inner square opening width: 2.951 [75.0] - Mounting hole diameter: .625 [15.9] REF	BPA-49-M113	7/8"-16UN, -40°C to +75°C (-40°F to +167°F)	 Pinout diagram showing a 4-pin circular connector with pins numbered 1, 2, 3, and 4.

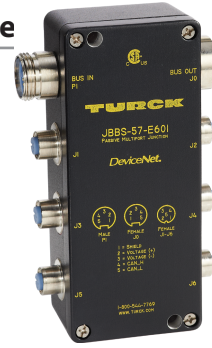
DISTRIBUTED I/O SALES GUIDE



FOUNDATION™ fieldbus, On-Machine Passive Junction Boxe

- Multiple Port Configurations Available
- Cast aluminum Housing*
- 7/8" x 1 Bus in/Bus out Connectors*
- Nickel Plated Brass Connectors Available
- CSA General Purpose
- -40°C to +75°C (-40°F to +167°F)
- IP67

*(Unless otherwise specified)



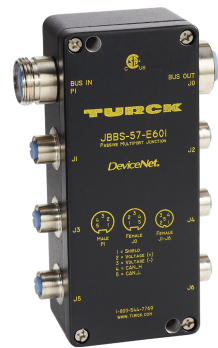
Housing Style	Part Number	Specifications	Pinouts
	JBBS-49-E813	M12x1 Bus-in/Bus-out plus 8 drops	
	JBBS-49-M613	7/8"-16UN Bus-in/Bus-out plus 6 drops	
	JBBS-49-M813	7/8"-16UN Bus-in/Bus-out plus 8 drops	
	JBBS-49SC-E413	M12x1 Bus-in/Bus-out plus 4 drops, short circuit protection	
	JBBS-49SC-E613	M12x1 Bus-in/Bus-out plus 6 drops, short circuit protection	
	JBBS-49SC-E813	M12x1 Bus-in/Bus-out plus 8 drops, short circuit protection	
	JBBS-49SC-M413	7/8"-16UN Bus-in/Bus-out plus 4 drops, short circuit protection	
	JBBS-49SC-M613	7/8"-16UN Bus-in/Bus-out plus 6 drops, short circuit protection	
	JBBS-49-E413	M12x1 Bus-in/Bus-out plus 4 drops	
	JBBS-49-M413	7/8"-16UN Bus-in/Bus-out plus 4 drops	

FOUNDATION fieldbus™ Media

NETWORK WIRING

FOUNDATION™ fieldbus, On-Machine Passive Junction Boxes

- Multiple Port Configurations Available
- Aluminum , Fiberglass or Stainless Steel Housings Available
- Short-Circuit Protection or Standard Wired
- -40°C to +75°C (-40°F to +167°F)
- IP67, IP68 and IP69k
- Terminating Resistors Available (P/N: RSV 49 TR)



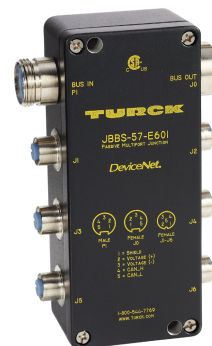
Housing Style	Part Number	Specifications	Pinouts
Technical drawing of the JBBS-49 series housing. The drawing shows a side view with dimensions: 7.480 [190.0] (total height), 7.008 [178.0] (height to top of ports), 1.772 [45.0] (width of mounting flange), 2.953 [75.0] (width of mounting flange), and 2.224 [56.5] REF (width of main body). It also shows a top view with four circular ports. A note indicates: MOUNTING SCREW #8 [M4] 2x NOT INCLUDED.	JBBS-49-E623	M12x1 Bus-in/Bus-out plus 6 drops, fiberglass housing	
	JBBS-49-E823	M12x1 Bus-in/Bus-out plus 8 drops, fiberglass housing	
	JBBS-49-M623	7/8"-16UN Bus-in/Bus-out plus 6 drops, fiberglass housing	
	JBBS-49-M823	7/8"-16UN Bus-in/Bus-out plus 8 drops, fiberglass housing	

DISTRIBUTED I/O SALES GUIDE

FOUNDATION™ fieldbus, On-Machine Passive Junction Boxes

- Multiple Port Configurations Available
- Cast Aluminum Housing*
- 7/8" x 1 Bus In/Bus Out Connectors*
- Nickel Plated Brass Connectors Available
- CSA General Purpose
- -40°C to +75°C (-40°F to +167°F)
- IP67

*(Unless otherwise specified)



TURCK
works

Industrial
Automation

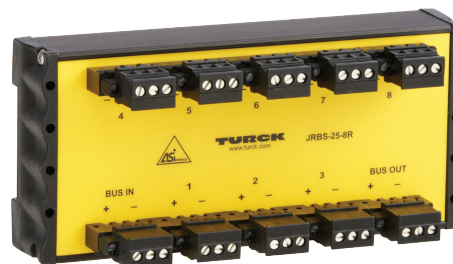
Housing Style	Part Number	Specifications	Pinouts
	JBBS-49SC-M653	7/8"-16UN Bus-in/Bus-out plus 6 drops, cast stainless steel housing, short circuit protection	
	JBBS-49SC-M853	7/8"-16UN Bus-in/Bus-out plus 8 drops, cast stainless steel housing, short circuit protection	
	JBBS-49-E423	M12x1 Bus-in/Bus-out plus 4 drops, fiberglass housing	
	JBBS-49-M423	7/8"-16UN Bus-in/Bus-out plus 4 drops, fiberglass housing	

FOUNDATION fieldbus™ Media

NETWORK WIRING

FOUNDATION™ fieldbus, In-Cabinet Passive Junction Boxes

- Multiple Port Configurations Available
- Extruded Aluminum Housing
- Removable Screw Terminals
- Short-circuit Protection
- -30°C to +70°C (-22°F to +158°F)
- IP20
- Terminating Resistors Available (P/N: JRBS-49TR)



Housing Style	Part Number	Specifications	Pinouts
	JRBS-49SC-12R	Bus-in/Bus-out plus 12 drops	No Image Supplied
	JRBS-49SC-10R	Bus-in/Bus-out plus 10 drops	No Image Supplied
	JRBS-49SC-8R	Bus-in/Bus-out plus 8 drops	No Image Supplied

DISTRIBUTED I/O SALES GUIDE



Industrial
Automation

FOUNDATION™ fieldbus, In-Cabinet Passive Junction Boxes

- Multiple Port Configurations Available
- Extruded Aluminum Housing
- Removable Screw Terminals
- Short-circuit Protection
- -30°C to +70°C (-22°F to +158°F)
- IP20
- Terminating Resistors Available (P/N: JRBS-49TR)



Housing Style	Part Number	Specifications	Pinouts
	JRBS-49SC-6R	Bus-in/Bus-out plus 6 drops	No Image Supplied
	JRBS-49SC-4R	Bus-in/Bus-out plus 4 drops	No Image Supplied

FOUNDATION fieldbus™ Media

DPC-System (Diagnostic Power Conditioner)

The DPC-System (Diagnostic Power Conditioner) is a power supply system for the installation of FOUNDATION™ fieldbus H1 segments. It provides comprehensive diagnostic functions for monitoring FOUNDATION fieldbus segments, and supports asset management for the entire system. This includes asset management of the physical layer which is extremely valuable.

A - DPC-49-IPS1 - galvanically isolated voltage supply (isolated power supply).

B - Diagnostic module "DPC-49-ADU" OR "DPC-49-DU"

C - Connection for the diagnostic bus

D - Address switch "Addr." for diagnostic bus multiplexing

E - H1 connections to the host

F - H1 connections into the field

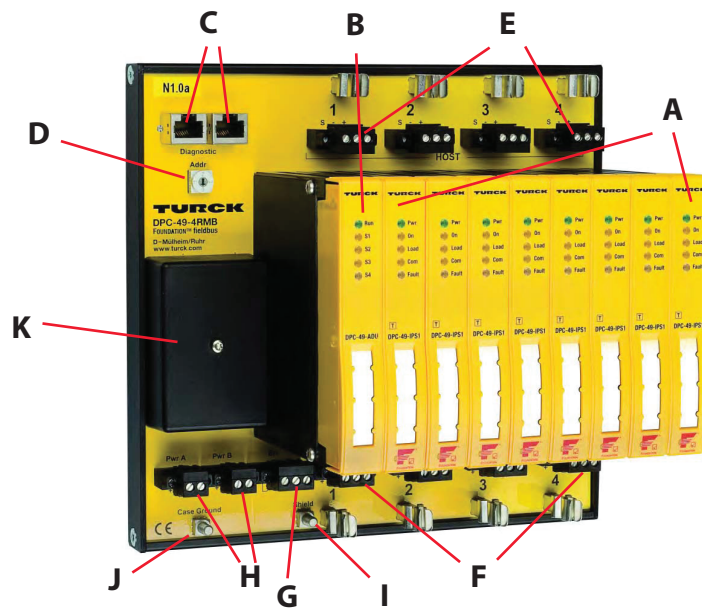
G - Connection for the "alarm relay"

H - Power supply - Pwr A/Pwr B

I - Shield connection

J - Connection of the housing - potential equalization

K - Overvoltage protection and EMC filter

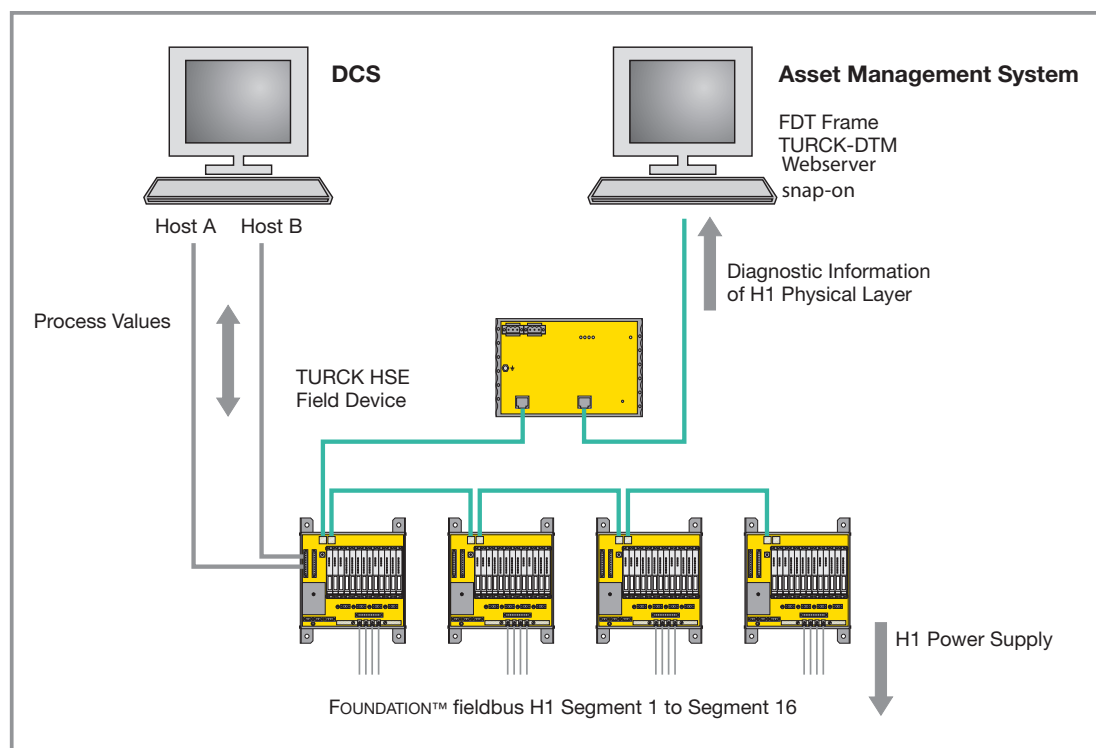


DPC system consists of one or more module racks (DPC-49-4RMB) each with up to eight power supply modules (DPC-49-IPS1) and one diagnostic module (DPC-49-ADU). Up to four H1 segments for each module rack can be operated and monitored redundantly. The diagnostic data from the H1 segments is transmitted via the HSE interface module (DPC-49-HSEFD/24VDC) to the higher level asset management system.

The diagnostic module (DPC-49-ADU) is used as a communication and diagnostic interface between the H1 segments and the power supply module. The diagnostics module monitors the electrical parameters and the communication parameters of the H1 segments. Operation without diagnostic module is possible. In this configuration, simple diagnostics are provided locally.

The diagnostic information is collected in the device and transmitted via the HSE interface module to the higher fieldbus level (e.g. to the host) as diagnostic and alarm data. The diagnostic module can be plugged and unplugged during operation (hot swappable).

The DPC system provides complete galvanic isolation; H1 to H1, H1 to 24 VDC power ADU/DU to H1, and HSE to H1. The DPC system can also be used to supply devices in hazardous classified areas when FISCO power supplies/repeaters or multibarriers from TURCK are used.



With the DPC system, the physical layer components are continuously monitored providing information regarding the quality and the status of the communication link.

This aspect of the system is the key to achieving the main objective of asset management: to minimize maintenance and lower system operating costs.

TURCK has made drastic improvements to existing physical layer components for use in FOUNDATION™ fieldbus applications. By continuously monitoring every physical layer component, the DPC treats the entire physical as an asset and manages it accordingly. The DPC system also supports the set-up of fieldbus assets by using localization of error sources, as well as documentation indicating a “good condition” of the segment structure.

The DPC system provides an option for redundant segment supplies. The system provides an option for redundant segment supplies. The system, fully loaded, can accommodate up to 16 fully redundant FOUNDATION fieldbus segments, each with an output of 800 mA and 30 VDC.

Extending H1 Fieldbus Diagnostics via HSE

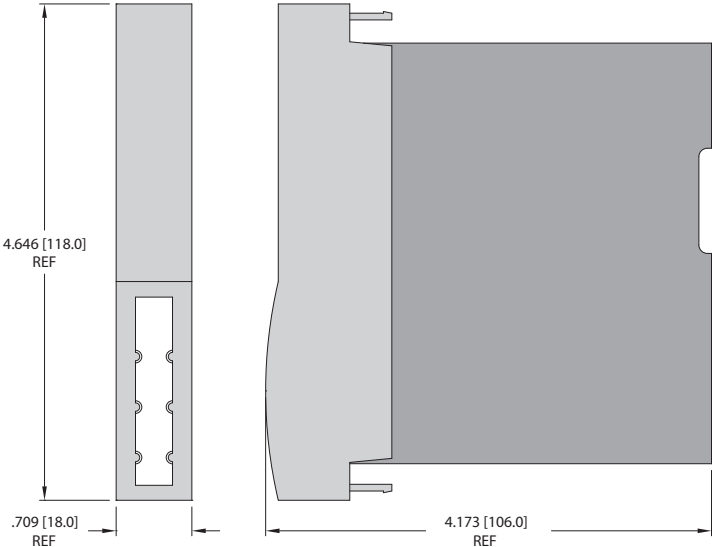
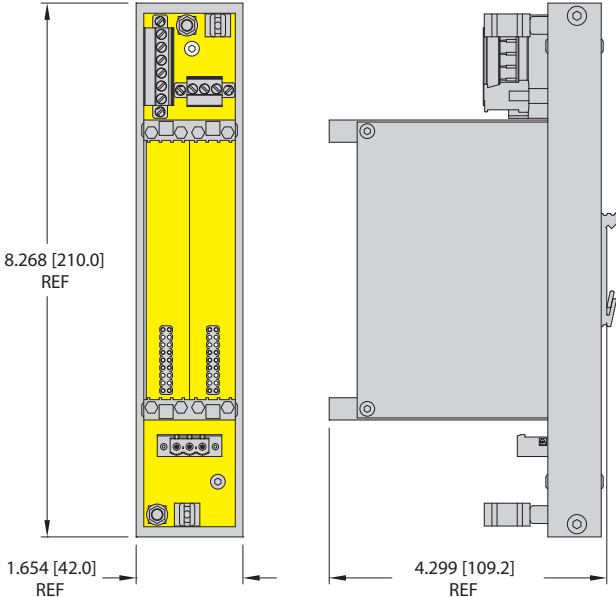
TURCK's FF Power Alert SNAP-ON provides H1 physical layer diagnostics from multiple segments and sends them directly into AMS Device Manager.

Additionally, with the DPC-49-HSEFD/24VDC embedded webserver, you have the ability to view, record, and parameterize alarms (a maximum of 192 field devices or 12 devices per segment) from any computer on the network.

NETWORK WIRING

FOUNDATION™ Fieldbus Power Supply or FF Diagnostic Power Conditioner

- Provides 800 mA per Segment
- Provides Single or Redundant Segment Power
- Up to 4 Redundant Segments per Backplane
- Monitors Electrical Alarms such as Supply Voltage and Segment Current.
- Monitors Physical Layer Communication Alarms such as LAS Level, Noise, Jitter, Ripple, Field Device Signal, Idle Time, and Frame Errors.

Housing Style	Part Number
	DPC-49-ADU
	DPC-49-DU
	DPC-49-IPS1
	DPC-49-BM-DPC
	DPC-49-1RMB

DISTRIBUTED I/O SALES GUIDE



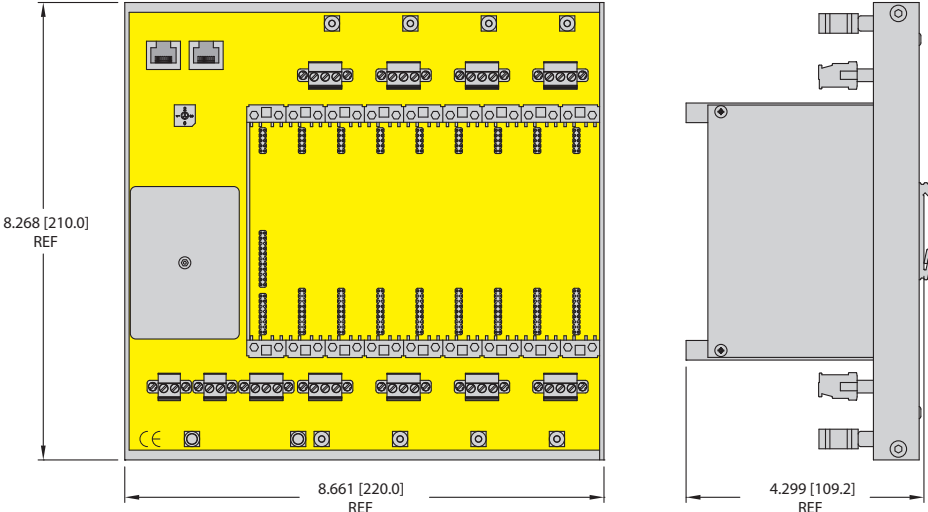
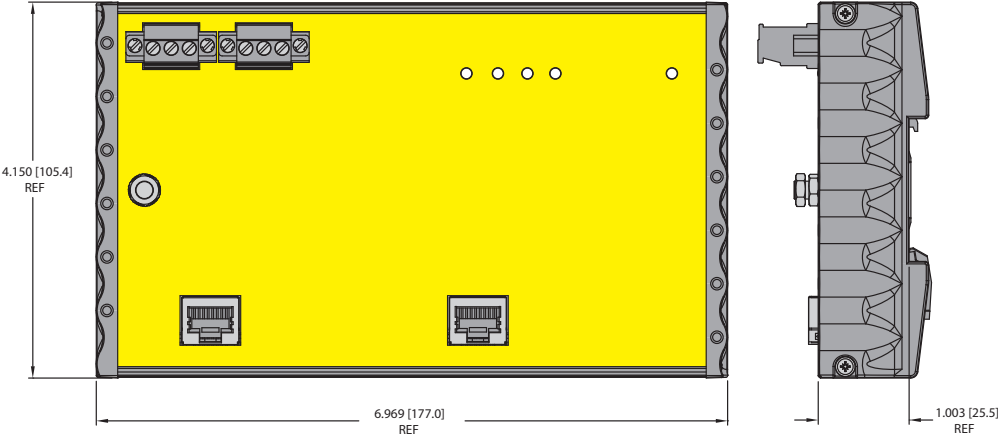
Protocol	Description	Segments	Connectors	Relay Output	Temperature
Foundation Fieldbus	Advanced Diagnostic Card	up to 16	NA	NA	-20...+60°C
Foundation Fieldbus	Basic Diagnostic Card	up to 16	NA	NA	-20...+60°C
Foundation Fieldbus	Power Supply Card	1	NA	NA	-20...+60°C
Foundation Fieldbus	Dummy Module Card	NA	NA	NA	-20...+60°C
Foundation Fieldbus	DPC Backplane	1	Removable Terminal Blocks	Yes	-20...+60°C

FOUNDATION fieldbus™ Media

NETWORK WIRING

FOUNDATION™ Fieldbus Power Supply Accessories

- Up to 16 Redundant Segments per HSE Field Device
- HSE Webserver for Electrical and Physical Layer Communication Alarms

Housing Style	Part Number
	DPC-49-4RMB DPC-49-4RMB/Y0
	DPC-49-HSEFD/24VDC

DISTRIBUTED I/O SALES GUIDE



Protocol	Description	Segments	Connectors	Relay Output	Temperature
FOUNDATION Fieldbus-H1	DPC Backplane	4	Removable Terminal Blocks, RJ45 Connectors	Yes	-20...+60°C
FOUNDATION Fieldbus-H1	DPC Backplane with Host connection for AKB336 Yokogawa system connector	4	Removable Terminal Blocks, RJ45 Connectors	Yes	-20...+60°C
FOUNDATION Fieldbus-HSE	High Speed Ether- net Device	16	Removable Terminal Blocks, RJ45 Connectors	NA	-20...+60°C

FOUNDATION fieldbus™ Media

NETWORK WIRING

FOUNDATION™ Fieldbus FISCO Power Supply and Multi-barrier

- FISCO Compliant Power Supplies
- PROFIBUS PA or Foundation Fieldbus Multibarrier
- Powder-coated Die Cast Aluminum Housing

Housing Style	Part Number
	RPC49-10120EX
	RPC49-10265EX
	MBD40-T0415/EX/000
	MBD40-T0815/EX/000

DISTRIBUTED I/O SALES GUIDE



Protocol	Description	Segments	Connectors	Relay Output	Temperature
FISCO	FISCO Power Supply	6	Removable Terminal Blocks	NA	-40...+70°C
FISCO	FISCO Power Supply	12	Removable Terminal Blocks	NA	-40...+70°C
Foundation Fieldbus, PROFIBUS PA, FISCO	Multibarrier	4	Cable glands	NA	-20...+70°C
Foundation Fieldbus, PROFIBUS PA, FISCO	Multibarrier	8	Cable glands	NA	-20...+70°C

IN-CABINET MODULAR I/O

Notes: