

Safety in System
Protection for man and machine

COMMAND AND SIGNALLING DEVICES

H PROGRAM



COMMAND AND SIGNALLING DEVICES H PROGRAM

AREA OF APPLICATION

With the H series, Schmersal presents a complete program of new command and signaling devices for hygiene-sensitive applications – especially for food processing.

The characteristic features of the command and signaling devices in this program include gap-free transitions between sealing elements and surfaces and the absence of protruding parts. The devices are easy to clean and are so well sealed that they can withstand regular cleaning, e.g. with high-pressure cleaners or aggressive cleaning agents.

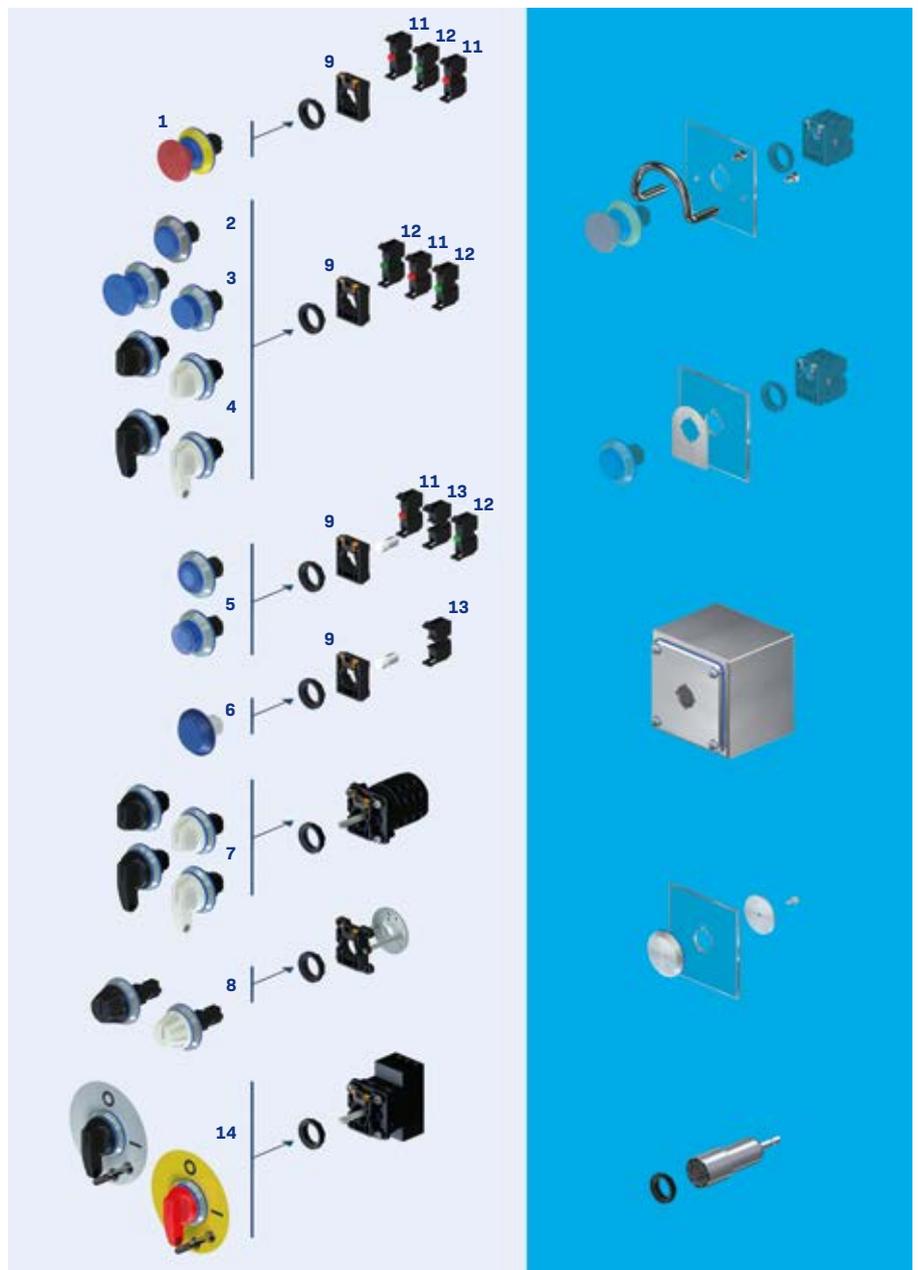
The new series fulfills the requirements of DIN EN ISO 14159 ("Safety of machinery – Hygiene requirements for the design of machinery") and the new version of EN 1672-2 ("Food processing machinery – General principles for design"). This standard specifies very precise requirements for the hygienic design of all operating elements on the human-machine interface (HMI) of food processing machines. Another regulation that formulates requirements for the selection of materials for this Area of application was also taken into account.

DESIGN AND WAY OF FUNCTIONING

The new H program not only meets the requirements of the standards and the "Hygienic Design" construction principle, but also has a fully modular structure. Thanks to snap-on contact carriers and individual contacts that can be combined – even in piggyback mode – this concept firstly enables very simple and quick installation, secondly a high degree of flexibility and thirdly it provides the prerequisite for pre-wiring.

There is a total of 147 different devices to choose from, including 26 mushroom pushbuttons, 24 selector switches with two or three positions and four potentiometer rotary switches. The designer of a food machine is therefore free to choose which type of operating elements of the H program to use for the design of the HMI. With its variety of different hygiene-compliant switchgear, the H program is unique on the market. In addition – and this is also new – the designer can order the control and signaling devices with individual laser marking, e.g. as an OEM version with a logo.

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COMMAND AND SIGNALLING DEVICES – H PROGRAM

EMERGENCY STOP CONTROL DEVICES



■ HDRZ40

Key Features

General description	Emergency stop command device with pull-to-unlatch mechanism by integrated snap-action mechanism
Area of application	Food and hygiene applications
Mounting-Ø	22.3 mm
Housing material	
Material of operating element	Plastic
Material front ring	Plastic

Technical features

Mechanical data	
Colour of the operating element	
Colour of sealing membranes	
Design	Round
Front plate thickness	1.5 ... 6 mm
Unlocking type	Pull-to-unlatch mechanism
Snap-action mechanism	
Integrated	–
Externally via additional module	■
Assembly	
Mounting flange included in delivery	■
Mounting position	Arbitrarily
Ambient conditions	
Ambient temperatures	–25 °C ... +80 °C
Degree of protection	IP67 / IP69K

Safety classification

Standards	IEC 60947-5-1, IEC 60947-5-5, IEC 60947-1, EN ISO 13850
Mechanical life	100,000 operations
Certificates	BG, UL, CCC (under preparation)

COMMAND AND SIGNALLING DEVICES – H PROGRAM

EMERGENCY STOP CONTROL DEVICES

Type	Unlocking	Operators	Bellows	Front ring	A	B	C	Type designation	Material number
Emergency stop command device	Pull-to-unlatch mechanism	red	blue	yellow	38	22.3	40	HDRZ40-BL-RT-GB	103037906

All dimensions in mm.

Key

- A Height Height of command device in front of the front panel
- B Mounting-Ø Installation diameter for the command device head
- C Key Ø Width of the command device head

COMMAND AND SIGNALLING DEVICES – H PROGRAM

INDICATOR LIGHTS



■ HML

Key Features

General description	LED indicator light for LED illuminants
Area of application	Food and hygiene applications
Mounting-Ø	22.3 mm
Housing material	
Material of operating element	Plastic
Material front ring	ABS, chrome-plated

Technical features

Mechanical data	
Colour of the operating element	
Colour of seal	
Design	All-round illuminated collar
Front plate thickness	1.5 ... 6 mm
Integrated LED 24 V	–
Assembly	
Mounting flange included in delivery	
Mounting position	Arbitrarily
Ambient conditions	
Ambient temperatures	–25 °C ... +80 °C
Degree of protection	IP67 / IP69K

Safety classification

Standards	IEC 60947-5-1, IEC 60947-1
Mechanical life	–
Certificates	BG, UL, CCC (under preparation)

* A voltage sensor CLP001 is also needed for driving. You can find the voltage sensors from page 115

COMMAND AND SIGNALLING DEVICES – H PROGRAM

INDICATOR LIGHTS

Type	Operators	Bellows	A	B	C	Type	Material number
Indicator lights	blue	blue	10	22.3	45	HML-BL-BL	103039525
	yellow					HML-BL-GB	103039526
	green					HML-BL-GN	103039522
	red					HML-BL-RT	103039524
	white					HML-BL-WS	103039523

All dimensions in mm.

Key

A	Height	Height of command device in front of the front panel
B	Mounting-Ø	Installation diameter for the command device head
C	Key Ø	Width of the command device head

COMMAND AND SIGNALLING DEVICES – H PROGRAM

PUSHBUTTONS AND ILLUMINATED PUSHBUTTONS



■ HDT



■ HDL

Key Features

General description	Pushbuttons	Illuminated pushbutton
Area of application	Food and hygiene applications	Food and hygiene applications
Mounting-Ø	22.3 mm	22.3 mm
Housing material		
Material of operating element	Plastic	Plastic
Material front ring	Stainless steel	Stainless steel

Technical features

Mechanical data		
Colour of the operating element	■ ■ ■ ■ ■ ■	■ ■ ■ ■ ■ ■
Colour of seal	■	■
Design	Round	Round
Front plate thickness	1.5 ... 6 mm	1.5 ... 6 mm
Assembly		
Mounting flange included in delivery	■	■
Mounting position	Arbitrarily	Arbitrarily
Ambient conditions		
Ambient temperatures	-25 °C ... +80 °C	-25 °C ... +80 °C
Degree of protection	IP67 / IP69K	IP67 / IP69K

Safety classification

Standards	IEC 60947-5-1, IEC 60947-1	IEC 60947-5-1, IEC 60947-1
Mechanical life	1,000,000 operations	1,000,000 operations
Certificates	BG, UL, CCC (under preparation)	BG, UL, CCC (under preparation)

COMMAND AND SIGNALLING DEVICES – H PROGRAM

PUSHBUTTONS AND ILLUMINATED PUSHBUTTONS

Type	Operators	Bellows	A	B	C	Type	Material number
Pushbuttons	blue	blue	13	22.3	22	HDT-BL-BL	103039534
	yellow					HDT-BL-GB	103039533
	green					HDT-BL-GN	103039530
	red					HDT-BL-RT	103039535
	black					HDT-BL-SW	103039532
	white					HDT-BL-WS	103039536
Illuminated pushbuttons	blue	blue	13	22.3	22	HDL-BL-BL	103039540
	yellow					HDL-BL-GB	103039541
	green					HDL-BL-GN	103039537
	red					HDL-BL-RT	103039539
	white					HDL-BL-WS	103039538

All dimensions in mm.

Key

A	Height	Height of command device in front of the front panel
B	Mounting-Ø	Installation diameter for the command device head
C	Key Ø	Width of the command device head

COMMAND AND SIGNALLING DEVICES – H PROGRAM

MUSHROOM HEAD IMPACT BUTTONS



■ HDTP30



■ HDTP40

Key Features

General description	Mushroom head impact button	Mushroom head impact button
Area of application	Food and hygiene applications	Food and hygiene applications
Mounting-Ø	22.3 mm	22.3 mm
Housing material		
Material of operating element	Plastic	Plastic
Material front ring	Stainless steel	Stainless steel

Technical features

Mechanical data		
Colour of the operating element		
Colour of sealing membranes		
Design	Round	Round
Front plate thickness	1.5 ... 6 mm	1.5 ... 6 mm
With latching	-	-
Assembly		
Mounting flange included in delivery		
Mounting position	Arbitrarily	Arbitrarily
Ambient conditions		
Ambient temperatures	-25 °C ... +80 °C	-25 °C ... +80 °C
Degree of protection	IP67 / IP69K	IP67 / IP69K

Safety classification

Standards	IEC 60947-5-1, IEC 60947-1	IEC 60947-5-1, IEC 60947-1
Mechanical life	1,000,000 operations	1,000,000 operations
Certificates	BG, UL, CCC (under preparation)	BG, UL, CCC (under preparation)



■ HDLP30



■ HDRZ40

Mushroom head impact button,
illuminated

Emergency stop command device
with pull-to-unlatch mechanism
by integrated snap-action
mechanism

Food and hygiene applications
22.3 mm

Food and hygiene applications
22.3 mm

Plastic

Plastic

Stainless steel

Stainless steel



Round

Round

1.5 ... 6 mm

1.5 ... 6 mm

-

-



Arbitrarily

Arbitrarily

-25 °C ... +80 °C

-25 °C ... +80 °C

IP67 / IP69K

IP67 / IP69K

IEC 60947-5-1,
IEC 60947-1

IEC 60947-5-1,
IEC 60947-1,

1,000,000 operations

100,000 operations

BG, UL, CCC (under preparation)

BG, UL, CCC (under preparation)

COMMAND AND SIGNALLING DEVICES – H PROGRAM

MUSHROOM HEAD IMPACT BUTTONS

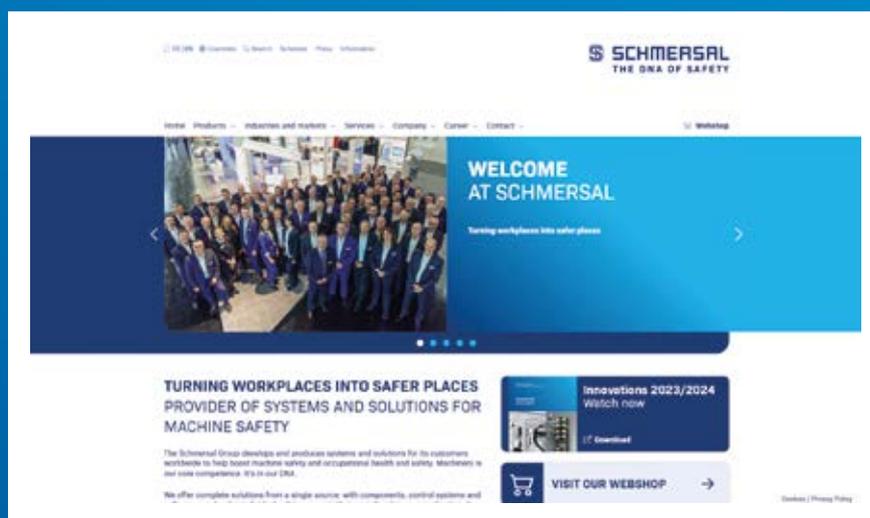
Type	Operators	Bellows	A	B	C	Type	Material number			
Mushroom head impact buttons	blue	blue	22	22.3	30	HDTP30-BL-BL	103039553			
	yellow					HDTP30-BL-GB	103039552			
	green					HDTP30-BL-GN	103039549			
	red					HDTP30-BL-RT	103043738			
	black					HDTP30-BL-SW	103039551			
	white					HDTP30-BL-WS	103039554			
	blue		38		40	HDTP40-BL-BL	103039547			
	yellow					HDTP40-BL-GB	103039545			
	green					HDTP40-BL-GN	103039542			
	red					HDTP40-BL-RT	103043737			
	black					HDTP40-BL-SW	103039544			
	white					HDTP40-BL-WS	103039548			
	Mushroom head impact buttons, illuminated		blue		blue	22	22.3	30	HDLP30-BL-BL	103039558
			yellow						HDLP30-BL-GB	103039559
green		HDLP30-BL-GN	103039555							
red		HDLP30-BL-RT	103039557							
white		HDLP30-BL-WS	103039556							
Mushroom head impact buttons with latching function	blue	blue	38	22.3	40	HDRZ40-BL-BL	103039518			
	yellow					HDRZ40-BL-GB	103039517			
	green					HDRZ40-BL-GN	103039514			
	red					HDRZ40-BL-RT	103044256			
	black					HDRZ40-BL-SW	103039516			
	white					HDRZ40-BL-WS	103039519			

All dimensions in mm.

Key

A	Height	Height of command device in front of the front panel
B	Mounting-Ø	Installation diameter for the command device head
C	Key Ø	Width of the command device head

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COMMAND AND SIGNALLING DEVICES – H PROGRAM

MAINTAINED SELECTOR SWITCHES AND SPRING RETURN SELECTOR SWITCHES



■ HWS / HWT



■ HWS.1 / HWT.1

Key Features

General description	Selector switch/ spring-return selector switch with short toggle	Step selector switch with long toggle
Area of application	Food and hygiene applications	Food and hygiene applications
Mounting-Ø	22.3 mm	22.3 mm
Toggle length	26 mm	52.5 mm
Housing material		
Material of operating element	Plastic	Plastic
Material front ring	Stainless steel	Stainless steel

Technical features

Mechanical data		
Colour of the operating element		
Colour of seal		
Design	Round	Round
Front plate thickness	1.5 ... 6 mm	1.5 ... 6 mm
Assembly		
Mounting flange included in delivery		
Mounting position	Arbitrarily	Arbitrarily
Ambient conditions		
Ambient temperatures	0 °C ... +80 °C	0 °C ... +80 °C
Degree of protection	IP67 / IP69K	IP67 / IP69K

Safety classification

Standards	IEC 60947-5-1, IEC 60947-1	IEC 60947-5-1, IEC 60947-1
Mechanical life	300,000 operations	300,000 operations
Certificates	BG, UL, CCC (under preparation)	BG, UL, CCC (under preparation)

COMMAND AND SIGNALLING DEVICES – H PROGRAM

MAINTAINED SELECTOR SWITCHES AND SPRING RETURN SELECTOR SWITCHES

Type	Maintained and momentary positions	Positions	A	B	C	Type designation						
Selector switches	2 maintained positions		31	22.3	45	HWS21 ^① -BL- ^②						
	3 maintained positions					HWS32 ^① -BL- ^②						
Selector switches	1 momentary position and automatic return to the zero position					31	22.3	45	HWT21 ^① -BL- ^②			
	1 momentary position each to the right and left of the zero position								HWT32 ^① -BL- ^②			
Spring-return selector switches	1 momentary position on the right and 2 maintained positions								31	22.3	45	HWS21 ^① -BL- ^②
	1 momentary position on the left and 2 maintained positions											HWS32 ^① -BL- ^②

All dimensions in mm.

Ordering code

① Toggle length:

Without Short toggle
.1 Long toggle

② Colour of toggle

BK Black
WS White

Key

A Height Height of command device in front of the front panel
B Mounting-Ø Installation diameter for the command device head
C Key Ø Width of the command device head

COMMAND AND SIGNALLING DEVICES – H PROGRAM

MAIN SWITCHES



■ HHS16



■ HHS40

Key Features

General description	Main switch 16A	Main switch 40A
Area of application	Food and hygiene applications	Food and hygiene applications
Mounting	Ø 22.3 mm	110 × 110 mm or Ø 22.3 mm
Housing material		
Material of operating element	Plastic	Plastic
Material front ring	Stainless steel	Stainless steel

Other versions are available

Emergency stop design	■	■
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Technical features

Mechanical data		
Colour of the operating element		
Colour of seal		
Design	Round	Square
Front plate thickness	1 ... 6 mm	1 ... 6 mm
Maintained switching positions	2 positions	2 positions
Assembly		
Mounting flange included in delivery	–	–
Integrated mounting plate	■	■
Mounting position	Arbitrarily	Arbitrarily
Ambient temperatures		
Pushbutton	0 °C ... +80 °C	0 °C ... +80 °C
Contact element, open	–25 °C ... +50 °C	–25 °C ... +50 °C
Contact element, enclosed	–25 °C ... +40 °C	–25 °C ... +40 °C
Degree of protection	IP67 / IP69K	IP67 / IP69K

Safety classification

Standards	IEC EN 60947, IEC EN 60204	IEC EN 60947, IEC EN 60204
Mechanical life	1,000,000 operations	100,000 operations
Certificates	BG, UL, CCC (under preparation)	BG, UL, CCC (under preparation)



■ HHS63



■ HHS125

Main switch 63A

Food and hygiene applications

110 × 110 mm
or Ø 22.3 mm

Plastic

Stainless steel

Main switch 125A

Food and hygiene applications

110 × 110 mm
or Ø 22.3 mm

Plastic

Stainless steel



Square

1 ... 6 mm

2 positions

-



Arbitrarily

0 °C ... +80 °C

-25 °C ... +50 °C

-25 °C ... +40 °C

IP67 / IP69K



Square

1 ... 6 mm

2 positions

-



Arbitrarily

0 °C ... +80 °C

-25 °C ... +50 °C

-25 °C ... +40 °C

IP67 / IP69K

IEC EN 60947,
IEC EN 60204

100,000 operations

BG, UL, CCC (under preparation)

IEC EN 60947,
IEC EN 60204

25,000 operations

BG, UL, CCC (under preparation)

COMMAND AND SIGNALLING DEVICES – H PROGRAM

MAIN SWITCHES

Type	Description		A	B	C	Type designation	Material number	
Main switches	16 A, 2-pole	Included in standard version	With black grip	32	22.3	70 × 80	HHS16-BL-SW-2-POL	103044285
			With black grip + mounting plate	37	-	110 × 110	HHS16-BL-SW-2-POL-MP	103044286
		Emergency stop	With red grip + yellow background	32	22.3	70 × 80	HHSNH16-BL-RT-2-POL	103044289
			With red grip, yellow background + mounting plate	37	-	110 × 110	HHSNH16-BL-RT-2-POL-MP	103044290
	16 A, 4-pole	Included in standard version	With black grip	32	22.3	70 × 80	HHS16-BL-SW-4-POL	103044287
			With black grip + mounting plate	37	-	110 × 110	HHS16-BL-SW-4-POL-MP	103044288
		Emergency stop	With red grip + yellow background	32	22.3	70 × 80	HHSNH16-BL-RT-4-POL	103044291
			With red grip, yellow background + mounting plate	37	-	110 × 110	HHSNH16-BL-RT-2-POL-MP	103044290
	40 A, 3-pole	Included in standard version	With black grip	32	22.3	Ø 100	HHS40-BL-SW	103044293
			With black grip + mounting plate	37	-	110 × 110	HHS40-BL-SW-MP	103044294
		Emergency stop	With red grip + yellow background	32	22.3	Ø 100	HHSNH40-BL-RT	103044295
			With red grip, yellow background + mounting plate	37	-	110 × 110	HHSNH40-BL-RT-MP	103044296
	63 A, 3-pole	Included in standard version	With black grip	32	22.3	Ø 100	HHS63-BL-SW	103044297
			With black grip + mounting plate	37	-	110 × 110	HHS63-BL-SW-MP	103044298
		Emergency stop	With red grip + yellow background	32	22.3	Ø 100	HHSNH63-BL-RT	103044299
			With red grip, yellow background + mounting plate	37	-	110 × 110	HHSNH63-BL-RT-MP	103044300
125 A, 3-pole	Included in standard version	With black grip	32	22.3	Ø 100	HHS125-BL-SW	103044301	
		With black grip + mounting plate	37	-	110 × 110	HHS125-BL-SW-MP	103044302	
	Emergency stop	With red grip + yellow background	32	22.3	Ø 100	HHSNH125-BL-RT	103044303	
		With red grip, yellow background + mounting plate	37	-	110 × 110	HHSNH125-BL-RT-MP	103044304	

All dimensions in mm.

Key

A	Height	Height of command device in front of the front panel
B	Mounting-Ø	Installation diameter for the command device head
C	Panel size	Dimensions of panel (if present)

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COMMAND AND SIGNALLING DEVICES – H PROGRAM

SPECIAL DEVICES



■ HWSE



■ HDAN6

Key Features

General description	Step selector switch	Potentiometer drive
Area of application	Food, hygiene and outdoor applications	Food, hygiene and outdoor applications
Mounting-Ø	22.3 mm	22.3 mm
Housing material		
Material of operating element	Plastic	Plastic
Material front ring	Stainless steel	Stainless steel

Technical features

Electrical data		
Cam-operated switch	Sälzer cam switch, M200 product series, M220 series	–
Contacts	One NO contact per stage	–
Insulation voltage U_i	690 V	–
Operating current I_o, AC-21A	20 A	–
Rated impulse withstand voltage. U_{imp}	4 kV	–
Rated continuous current I_{the}	20 A	–
Fuse rating	20 A gL	–
Cable section	max. 2.5 mm ² *	–
Mechanical data		
Color		
Operating element	<input type="checkbox"/> <input checked="" type="checkbox"/>	<input type="checkbox"/> <input checked="" type="checkbox"/>
Front ring	Silver	Silver
Front plate thickness	1.5 ... 6 mm	1.5 ... 6 mm
Maintained switching positions	2 ... 12 positions	Infinite
Assembly		
Integrated mounting plate	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Mounting position	Arbitrarily	Arbitrarily
Ambient conditions		
Ambient temperatures of the device head	0 °C ... +80 °C	0 °C ... +80 °C
Degree of protection (device head)	IP67 / IP69K	IP67 / IP69K

Safety classification

Standards	EN 60947, EN 60204, ANSI/UL 60947-1, ANSI/UL 60947-4-1	–
Mechanical life	Load-dependent	–
Certificates	BG, cULus, CCC (under preparation)	BG, cULus, CCC (under preparation)

* Use copper conductors only

COMMAND AND SIGNALLING DEVICES – H PROGRAM

SPECIAL DEVICES

Type	Circuit diagram and connecting terminals	Switching angle	L	LE	A	B	C	Type designation
Cam switching design step switches with latching mechanism, 1-pole no zero position		60°	40.7	60	31	22.3	45	HWSE3①-BL-②
		60°	40.7	60	31	22.3	45	HWSE4①-BL-②
		60°	50.2	69.5	31	22.3	45	HWSE5①-BL-②
		60°	50.2	69.5	31	22.3	45	HWSE6①-BL-②
		45°	59.7	78	31	22.3	45	HWSE7①-BL-②
		45°	59.7	78	31	22.3	45	HWSE8①-BL-②
		30°	69.2	87.5	31	22.3	45	HWSE9①-BL-②
		30°	69.2	87.5	31	22.3	45	HWSE10①-BL-②
		30°	78.7	97	31	22.3	45	HWSE11①-BL-②
		30°	78.7	97	31	22.3	45	HWSE12①-BL-②

Type	Description	LE	A	B	C	Type designation
Potentiometer drive	for 6 mm shaft Ø, shaft length 30 ... 40 mm, control unit black	63	31	22.3	45	HDAN6-BL-SW-③
	for 6 mm shaft Ø, shaft length 30 ... 40 mm, control unit white					HDAN6-BL-WS-③

Key

A	Height	Height of command device in front of the front panel
B	Mounting-Ø	Installation diameter for the command device head
C	Key Ø	Width of the command device head
L	Length	Length of step switch block
LE	Installation depth	Length between command device head and bottom edge of switch when mounted

Ordering code

- ① **Switching stages:**
 - 2 2 switching stages
 -
 - 12 12 switching stages
- ② **Colour of toggle**
 - BK Black
 - WS White
- ③ **End stop:**
 - 250 End stop at 250°

CONTACT AND LIGHT TERMINAL BLOCKS

TECHNICAL DATA – RANGE AF



■ CLP001

Key Features

General description	Light terminal block
Can be used with	H programme

Technical features

Design	CLP
Material	
Material of the housings	Plastic, self-extinguishing
Material of the contacts	
Utilisation category AC-15; DC-13	
Rated insulation voltage U_i	
Rated impulse withstand voltage. U_{imp}	
Thermal test current I_{the}	
Max. fuse rating	Appropriate to the respective version
Switching frequency	
Mechanical life	
Resistance to shock	30 g / 18 ms
Resistant to vibration	
Ambient temperature	-25 °C ... +60 °C
Termination	
Screw connection	■
Cable section	
Solid wire	2 × 1.5 mm ²
Stranded wire	2 × 1.5 mm ²
Degree of protection terminals ** / switch rooms	IP20 / IP40

Safety classification

Standards	IEC 60947-5-1, IEC 60947-1
B_{1,00}	
Certificates	cULus

* For actuating heads with higher mass, appropriately lower

** With plug-in connectors, depends on the connector plug used



■ CLP101



■ CLP110

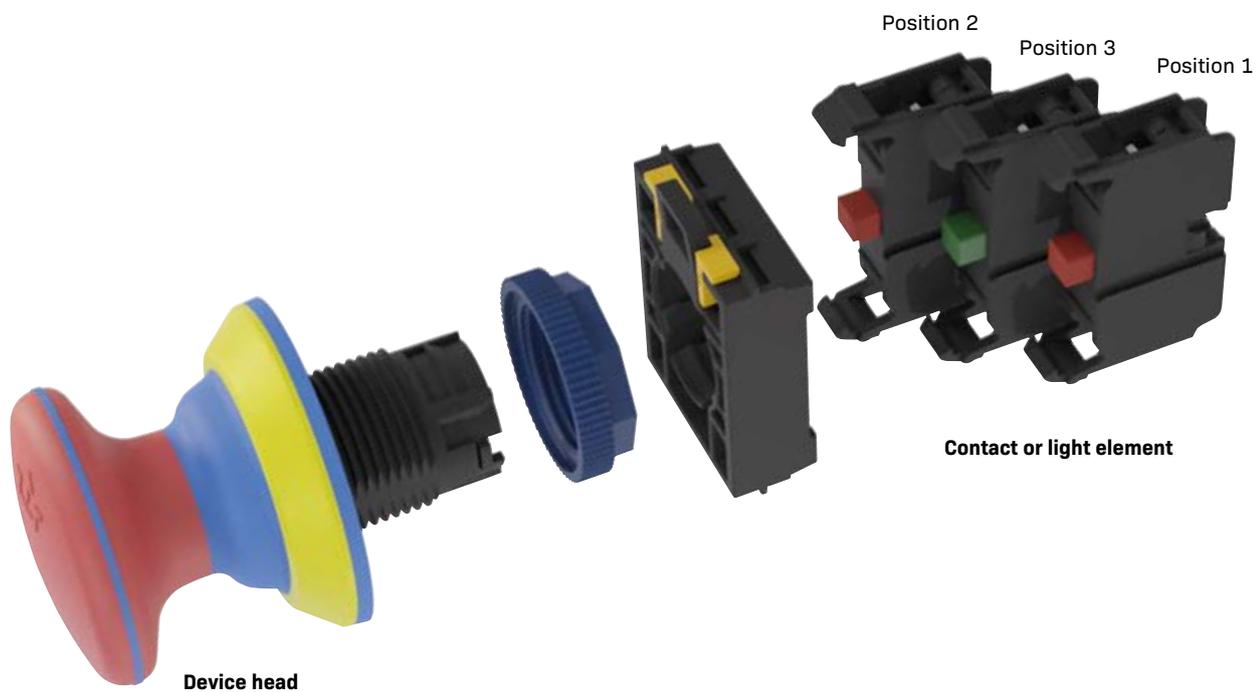
Contact element H programme	Contact element H programme
CLP	CLP
Plastic, self-extinguishing Carrier made from fine silver, Phosphor bronze or brass	Plastic, self-extinguishing Carrier made from fine silver, Phosphor bronze or brass
250 V / 6 A; 24 V / 3 A	250 V / 6 A; 24 V / 3 A
500 V	500 V
2.5 kV	2.5 kV
6 A	6 A
gG 6 A	gG 6 A
1,200 s/h	1,200 s/h
5,000,000 operations	5,000,000 operations
30 g / 18 ms	30 g / 18 ms
20 g / 10 ... 150 Hz *	20 g / 10 ... 150 Hz *
-25 °C ... +60 °C	-25 °C ... +60 °C
■	■
2 × 0.5 ... 1.5 mm ²	2 × 0.5 ... 1.5 mm ²
2 × 0.5 ... 1.5 mm ²	2 × 0.5 ... 1.5 mm ²
IP20 / IP40	IP20 / IP40
IEC 60947-5-1, IEC 60947-1	IEC 60947-5-1, IEC 60947-1
100,000 operations cULus	100,000 operations cULus

CONTACT AND LIGHT TERMINAL BLOCKS

TYPE CLP

Device head	Position 1	Position 3	Position 2
Emergency stop command device	Contact element CLP101 or CLP110	Contact element CLP101 or CLP110	Contact element CLP101 or CLP110
Pushbutton			
Mushroom button			
Selector switch/key button			
Illuminated pushbutton	Contact element CLP101 or CLP110	Light element CLP001	Contact element CLP101 or CLP110
Indicator light	-	Light element CLP001	-

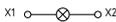
Assembly example



CONTACT AND LIGHT TERMINAL BLOCKS

TYPE CLP

Type	Application	Function	Position	Connector	Plunger colour	Contact labelling	Type designation	Material number
Contact element	Standard and emergency stop	1 NC	1, 2 and 3	Screw connection	Red	1, 2	CLP101	103040378
		1 NO	1, 2 and 3	Screw connection	Green	3, 4	CLP110	103040379

Type	Illuminant	Diagram	Position	Connector	Contact labelling	Type designation	Material number
Light terminal block	Without *		3	Screw connection	X1 - X2	CLP001	103040380

* The right lamp with the size Ba9S has to be ordered separately.

* Illuminant not included in delivery!

THE SCHMERSAL GROUP

PROTECTION FOR MAN AND MACHINE

In the demanding field of machine safety, the owner-managed Schmersal Group is one of the international market leaders. The company, which was founded in 1945, has a workforce of about 2,000 people and seven manufacturing sites on three continents along with its own companies and sales partners in more than 60 nations.

Customers of the Schmersal Group include “Global Players” in mechanical engineering and plant manufacturing and operators of machinery. They benefit from the company’s extensive expertise as a provider of systems and solutions for machine safety. In addition, Schmersal specialises in various areas including intralogistics, foodstuff production, the packaging industry, machine tool industry, lift switchgear, heavy industry and the automotive industry.

A major contribution to the systems and solutions offered by the Schmersal Group is made by tec.nicum with its comprehensive range of services: Certified Functional Safety Engineers advise machinery manufacturers and machinery operators in all aspects relating to machinery and occupational safety – and do so with product and manufacturer neutrality. Furthermore, they design and realise complex solutions for safety around the world in close collaboration with the clients.



SAFETY PRODUCTS

- Safety switches and sensors, solenoid interlocks
- Safety controllers and safety relay modules, safety bus systems
- Optoelectronic and tactile safety devices
- Automation technology: position switches, proximity switches

SAFETY SYSTEMS

- Complete solutions for safeguarding hazard areas
- Individual parametrisation and programming of safety controllers
- Tailor-made safety technology – be it for individual machines or a complex production line
- Industry-specific safety solutions

SAFETY SERVICES

- tec.nicum academy – Seminars and training
- tec.nicum consulting – Consultancy services
- tec.nicum engineering – Design and technical planning
- tec.nicum integration – Execution and installation



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The details and data referred to have been carefully checked.
Subject to technical amendments and errors.

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