

Safety Switches with Separate Actuator, Plastic Housing EUCHNER

Selection table for safety switches GP

Connection		Switching element			Page
M	SR11	Two contacts	Four contacts		
		Thread M20 x 1.5 for cable gland Plug connector; 11 pin + PE			
		1 NC ⊖ + 1 NO, 2 NC ⊖			
		2 NC ⊖ + 2 NO, 3 NC ⊖ + 1 NO, 4 NC			

Connection		Switching element		Page
M	SR11	Two contacts	Four contacts	
				32
				33





Safety switch GP

- ▶ Cable entry M20 x 1.5
- ▶ Plug connector optional



Approach direction



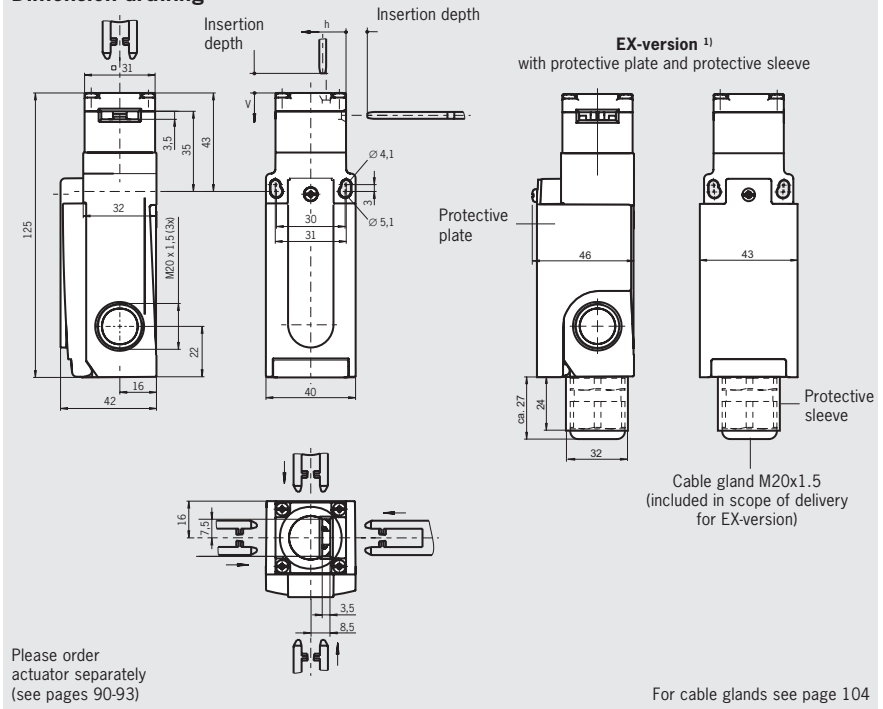
Horizontal and vertical
Can be adjusted in 90° steps

Switching elements

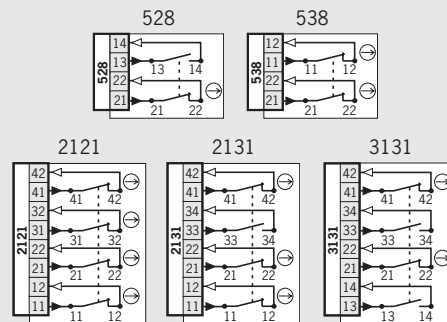
- ▶ **528** Slow-action switching element
1 NC \ominus + 1 NO
- ▶ **538** Slow-action switching element
2 NC \ominus
- ▶ **2121** Slow-action switching element
4 NC \ominus
- ▶ **2131** Slow-action switching element
3 NC \ominus + 1 NO
- ▶ **3131** Slow-action switching element
2 NC \ominus + 2 NO

Cable entry M20 x 1.5

Dimension drawing



Wiring diagrams Actuator inserted



Ordering table

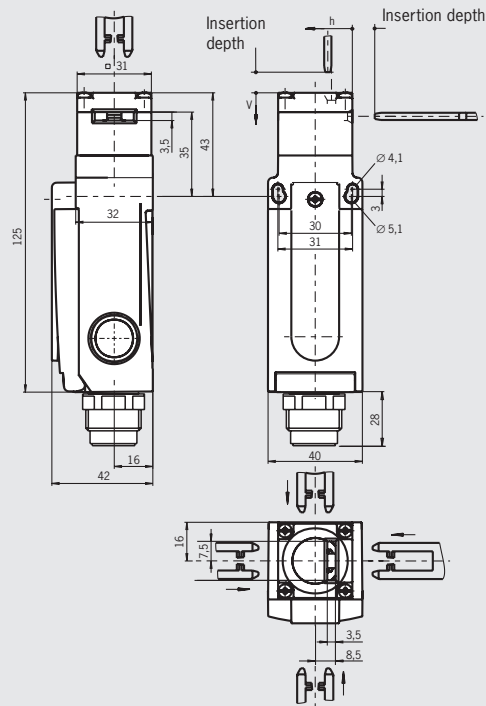
Series	Connection	Switching element	Version	Order No. / Item
GP	1 Cable entry 3 x M20 x 1.5	528 1 NC \ominus + 1 NO		089725 GP1-528A-M
		538 2 NC \ominus		090250 GP1-538A-M
		2121 4 NC \ominus		090252 GP1-2121A-M
		2131 3 NC \ominus + 1 NO		090255 GP1-2131A-M
		2131 3 NC \ominus + 1 NO	ATEX Incl. cable gland	095702 ¹⁾ GP1-2131A-M-EX
		3131 2 NC \ominus + 2 NO		090258 GP1-3131A-M

1) Ex II 3 G Ex nC IIB T5 X
 Ex II 3 D Ex tD A22 T90°C X



Plug connector SR11
11-pin + PE

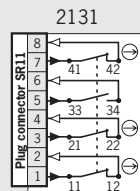
Dimension drawing



Please order actuator separately (see pages 90-93)

For plug connectors see page 100

Wiring diagrams Actuator inserted



Ordering table

Series	Connection	Switching element	Order No. / Item
GP	2 Plug connector SR11	2131 3 NC ⊖ + 1 NO	096227 GP2-2131ASR11

For safety precautions see page 160
For technical data see page 117



Safety switch GP



The technical data on switches and switching elements apply to all connections. Further technical data are given for the connection selected.

Reliability values acc. to EN ISO 13849-1

Parameter	Value	Unit
B _{10d}	3 x 10 ⁶ operating cycles	

Switch



Parameter	Value	Unit	
Housing material	Reinforced thermoplastic		
Mechanical life	2 x 10 ⁶ operating cycles		
Ambient temperature	- 20 ... + 80	°C	
Weight	approx. 0.16	kg	
Max. approach speed	20	m/min	
Actuating force	10	N	
Extraction force	20	N	
Retention force	2	N	
Insertion depth (minimum required travel + permissible overtravel)	Standard actuators	Overtravel actuator	
Approach direction side (h)	28 + 2	28 + 7	mm
Approach direction from top (v)	29.5 + 1.5	29.5 + 7	mm

Switching element



Parameter	Value	Unit	
Switching principle	Slow-action switching element		
Switching elements with 2 switching elements	528 1 NC ⊖ + 1 NO	538 2 NC ⊖	
Switching elements with 4 switching elements	2121 4 NC ⊖	2131 3 NC ⊖ + 1 NO	3131 2 NC ⊖ + 2 NO
Switching current, min., at DC 24 V	1	mA	
Switching voltage, min., at 10 mA	12	V	
Contact material	Silver alloy, gold flashed		

Connection, cable entry M20 x 1.5



Parameter	Value	Unit
Connection	Screw terminal	
Version	M20 x 1.5	
Conductor cross-section	0.34 ... 1.5	mm ²
Degree of protection according to IEC 60529	IP 67	
Rated insulation voltage U _i	250	V AC/DC
Rated impulse withstand voltage U _{imp}	2.5	kV
Conventional thermal current I _{th}	4	A
Short circuit protection according to IEC 60269-1 (control circuit fuse)	4	A gG
Utilization category to IEC 60947-5-1	AC-15 DC-13	I _e 4 A U _e 230 V I _e 4 A U _e 24 V

Plug connector SR11 connection



Parameter	Value	Unit
Connection	Plug connector	
Version	11-pin + PE	
Degree of protection according to IEC 60529	IP 65 ¹⁾	
Rated insulation voltage U _i	50	V AC/DC
Rated impulse withstand voltage U _{imp}	1.5	kV
Conventional thermal current I _{th}	4	A
Short circuit protection according to IEC 60269-1 (control circuit fuse)	4	A gG
Utilization category to IEC 60947-5-1	AC-15 DC-13	I _e 4 A U _e 50 V I _e 4 A U _e 24 V

1) Screwed tight with the related plug connector (see page 100)