


Safety Switches with Separate Actuator, Plastic Housing **EUCHNER**

Selection table for safety switches SGP

Connection			
M			Thread M20 x 1.5 for cable gland
	SR11		Plug connector; 11 pin + PE
		Switching element	
		Four contacts	2 NC ⊖ + 2 NO,
			3 NC ⊖ + 1 NO,
			4 NC ⊖
			
M	SR11	Four contacts	Page
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	●	●	37

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Safety switch SGP

- ▶ Actuating head made of metal
- ▶ Cable entry M20 x 1.5
- ▶ Plug connector optional



Approach direction



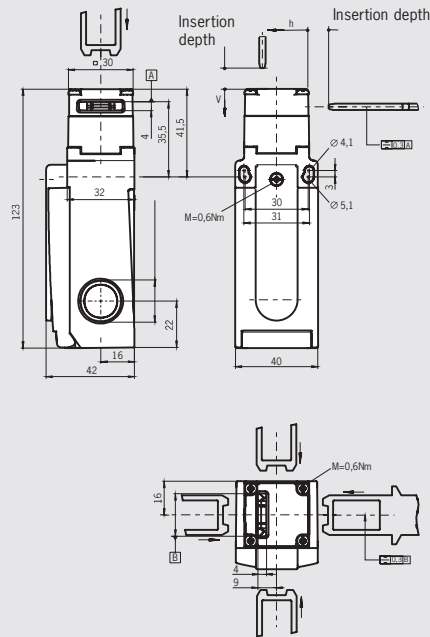
Horizontal and vertical
Can be adjusted in 90° steps

Switching elements

- ▶ **2121** Slow-action switching element
4 NC ⊖
- ▶ **2131** Slow-action switching element
3 NC ⊖ + 1 NO
- ▶ **3131** Slow-action switching element
2 NC ⊖ + 2 NO

Cable entry M20 x 1.5

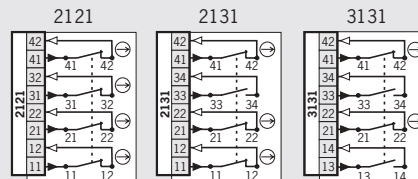
Dimension drawing



Please order actuator separately (see pages 82-84)

For cable glands see page 89

Wiring diagrams Actuator inserted



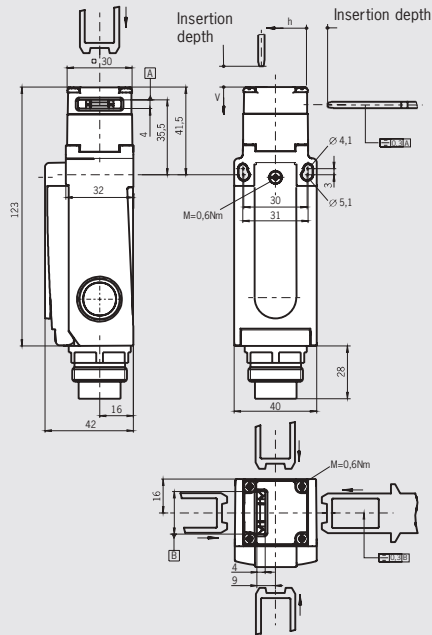
Ordering table

Series	Connection	Switching element	Version	Order No. / Item
SGP	1 Cable entry 3 x M20 x 1.5	2121 4 NC ⊖		097 705 SGP1E-2121A-M
		2131 3 NC ⊖ + 1 NO		097 706 SGP1E-2131A-M
		3131 2 NC ⊖ + 2 NO		097 707 SGP1E-3131A-M



Plug connector SR11
11-pin + PE

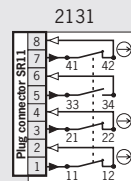
Dimension drawing



Please order actuator separately (see pages 82-84)

For plug connectors see page 88

Wiring diagrams Actuator inserted



Ordering table

Series	Connection	Switching element	Order No. / Item
SGP	2 Plug connector SR11	2131 3 NC \ominus + 1 NO	099 084 SGP2E-2131ASR11

For safety precautions see page 132
For technical data see page 99








Safety switch SGP




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

Switch			
Parameter		Value	Unit
Material	Housing	Reinforced thermoplastic	
	Actuating head	Die-cast aluminum	
	Cam in actuating head	Stainless steel	
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		25	N
Extraction force		25	N
Retention force		10	N
Insertion depth (minimum required travel + permissible overtravel)	Actuator S standard		Actuator L for insertion funnel
Approach direction side (h)		24.5 + 5	28.5 + 5
Approach direction from top (v)		24.5 + 5	28.5 + 5

Switching element			
Parameter		Value	Unit
Switching principle		Slow-action switching element	
Switching elements with 4 switching elements		2121 4 NC \ominus	2131 3 NC \ominus + 1 NO
			3131 2 NC \ominus + 2 NO
Switching current, min., at 24 V DC		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	I _e 4 A U _e 230 V	
	DC-13	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	I _e 4 A U _e 50 V	
	DC-13	I _e 4 A U _e 24 V	