

Selection table for safety switches GP

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



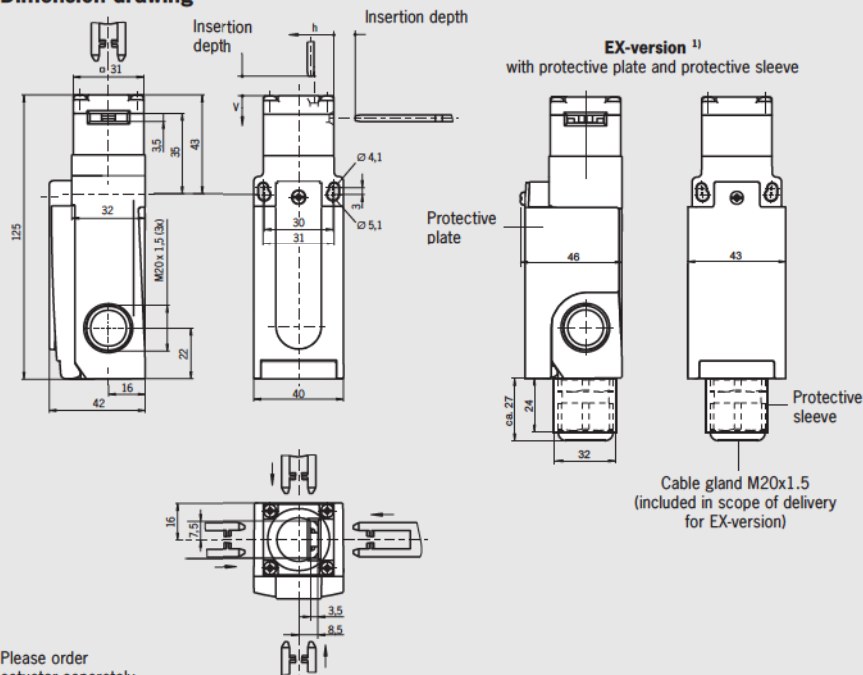
Horizontal and vertical
Can be adjusted in 90° steps

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

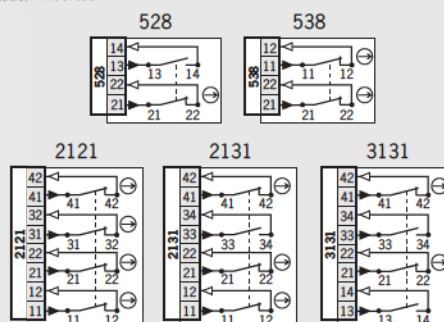
Cable entry M20 x 1.5

Dimension drawing



For cable glands see page 89

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		089 725 GP1-528A-M
		538 2 NC $\ominus$		090 250 GP1-538A-M
		2121 4 NC $\ominus$		090 252 GP1-2121A-M
		2131 3 NC $\ominus$ + 1 NO		090 255 GP1-2131A-M
		2131 3 NC $\ominus$ + 1 NO	ATEX Incl. cable gland	095 702 ¹⁾ GP1-2131A-M-EX
		3131 2 NC $\ominus$ + 2 NO		090 258 GP1-3131A-M

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

Technical drawing of the 1000 Series High Pressure Die Casting Machine, showing front, side, and top views with dimensions in mm.

Front View (Left):

- Overall height: 125
- Top flange diameter: $\varnothing 31$
- Internal vertical dimension: 3.5
- Internal vertical dimension: 35
- Internal vertical dimension: 43
- Lower section diameter: $\varnothing 32$
- Bottom flange diameter: 42
- Bottom flange thickness: 16

Side View (Right):

- Insertion depth: h
- Vertical dimension: V
- Top flange diameter: $\varnothing 4,1$
- Internal vertical dimension: 3
- Internal vertical dimension: $\varnothing 5,1$
- Internal vertical dimension: 30
- Internal vertical dimension: 31
- Bottom flange diameter: 40
- Bottom flange thickness: 28

Top View (Bottom):

- Overall width: 16
- Internal horizontal dimension: 7.5
- Internal horizontal dimension: 3.5
- Internal horizontal dimension: 8.5

For plug connectors see page 86

Series	Connection	Switching element	Order No. / Item
GP	2 Plug connector SR11	2131 3 NC $\ominus$ + 1 NO	096 227 GP2-2131ASR11

Safety switch GP



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
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
Approach direction from top (v)	29.5 + 1.5	29.5 + 7

Switching element  		
Parameter	Value	Unit
Switching principle	Slow-action switching element	
Switching elements with 2 switching elements	528 1 NC $\ominus$ + 1 NO	538 2 NC $\ominus$
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 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 86)

