

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

Safety switch NP

- ▶ Mounting to DIN EN 50047
- ▶ Cable entry M20 x 1.5
- ▶ Plug connector optional



Approach direction



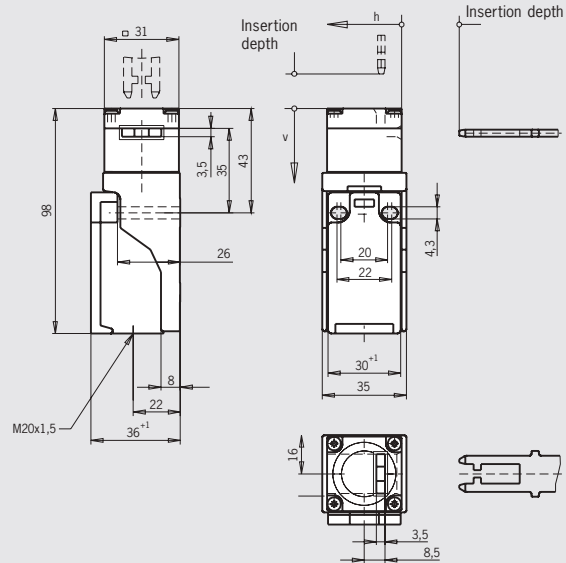
Horizontal and vertical
Can be adjusted in 90° steps

Switching elements

- ▶ **618** Slow-action switching element
1 NC \ominus
- ▶ **628** Slow-action switching element
1 NC \ominus + 1 NO
- ▶ **638** Slow-action switching element
2 NC \ominus
- ▶ **648** Slow-action switching element
2 NC \ominus + 1 NO

Cable entry M20 x 1.5

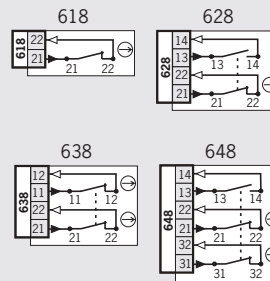
Dimension drawing



Please order actuator separately (see pages 78-81)

For cable glands see page 89

Wiring diagrams Actuator inserted



Ordering table

Series	Mounting	Connection	Switching element	Order No. / Item
NP	AS acc. to DIN EN 50047	1 Cable entry 1 x M20 x 1.5	618 1 NC \ominus	083 685 NP1-618AS-M
			628 1 NC \ominus + 1 NO	083 688 NP1-628AS-M
			638 2 NC \ominus	083 691 NP1-638AS-M
			648 ¹⁾ 2 NC \ominus + 1 NO	082 280 NP1-648AS-M

1) No \ominus approval

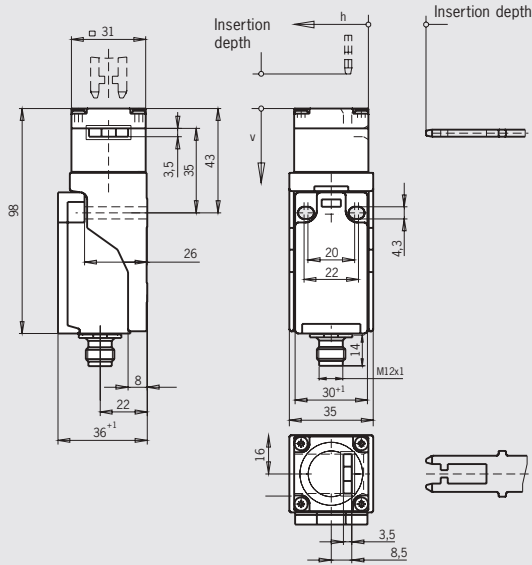
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Plug connector SM4 M12 plug, 4-pin

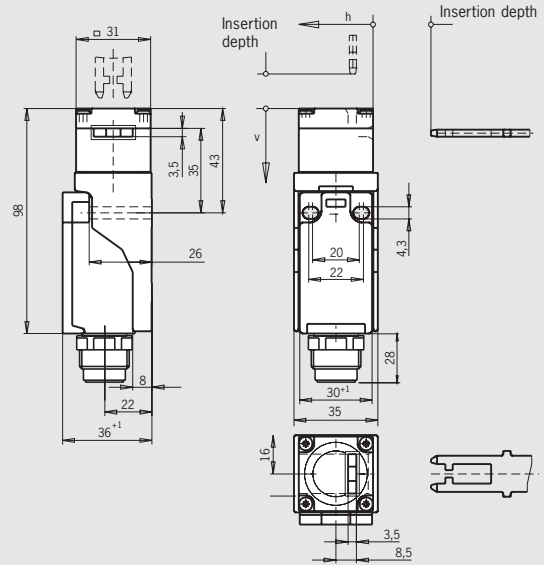
Plug connector SR6 6-pin + PE

Dimension drawing



Please order actuator separately (see pages 78-81)

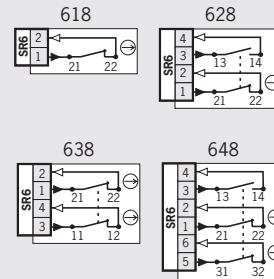
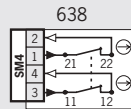
For plug connectors see page 87



Please order actuator separately (see pages 78-81)

For plug connectors see page 88

Wiring diagrams Actuator inserted

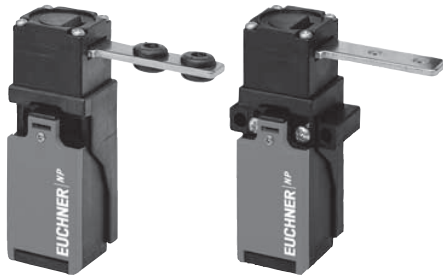


Ordering table


Series	Mounting	Connection	Switching element	Order No. / Item
NP	AS acc. to DIN EN 50047	3 Plug connector SM4	638 2 NC ⊖	084 400 NP3-638AS
			618 1 NC ⊖	059 445 NP2-618AS
		2 Plug connector SR6	628 1 NC ⊖ + 1 NO	059 447 NP2-628AS
			638 2 NC ⊖	059 449 NP2-638AS
			648 2 NC ⊖ + 1 NO	088 924 NP2-648AS





Safety switch NP




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		10 ⁶ operating cycles	
Ambient temperature		- 20 ... + 80	°C
Weight		approx. 0.11	kg
Max. approach speed		20	m/min
Actuating force		5	N
Extraction force		15	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 Only with adapter NP-K Order No. 074 578 / page 83	mm

Switching element			
Parameter		Value	Unit
Switching principle		Slow-action switching element	
Switching elements with 1 switching element		618 1 NC \ominus	
Switching elements with 2 switching elements	628 1 NC \ominus + 1 NO	638 2 NC \ominus	
Switching elements with 3 switching elements		648 2 NC \ominus + 1 NO	
Switching current, min., at 24 V DC		30	mA
Switching voltage, min., at 10 mA		24	V
Contact material		Silver alloy	

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	

Connection, plug connector SM 4 (M12)			
Parameter		Value	Unit
Connection		Plug connector	
Version		M12 (4-pin)	
Degree of protection according to IEC 60529		IP 67 ¹⁾	
Rated insulation voltage U _i		250	V AC/DC
Rated impulse withstand voltage U _{imp}		2.3	kV
Conventional thermal current I _{th}		1.5	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	

1) Screwed tight with the related plug connector (see page 87-88)

Plug connector SR6 connection



Parameter		Value	Unit
Connection		Plug connector	
Version		6-pin + PE	
Degree of protection according to IEC 60529		IP 65 ¹⁾	
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	

1) Screwed tight with the related plug connector (see page 87-88)