



Safety switch NP

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



Approach direction



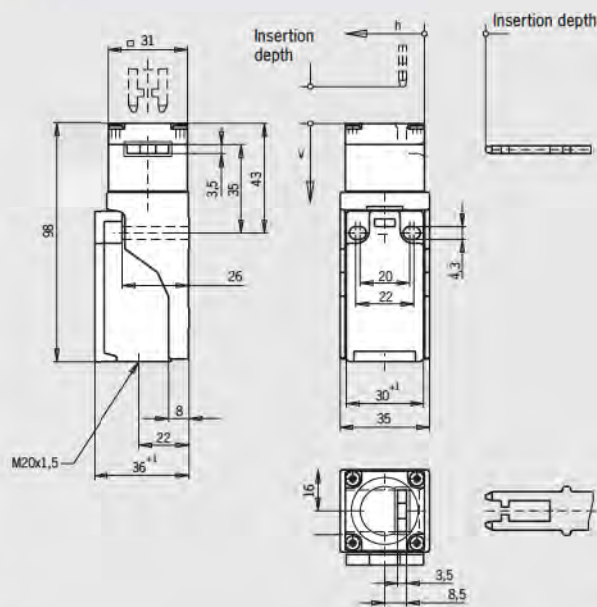
Horizontal and vertical
Can be adjusted in 90° steps

Switching elements

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

Cable entry M20 x 1.5

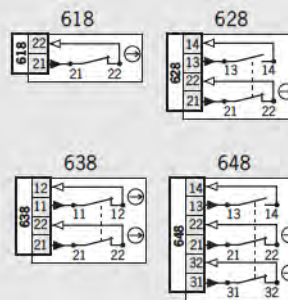
Dimension drawing



Please order
actuator separately
(see pages 76-79)

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 ⊖	083 685 NP1-618AS-M
			628 1 NC ⊖ + 1 NO	083 688 NP1-628AS-M
			638 2 NC ⊖	083 691 NP1-638AS-M
			648 ¹⁾ 2 NC ⊖ + 1 NO	082 280 NP1-648AS-M

1) No "UL" approval

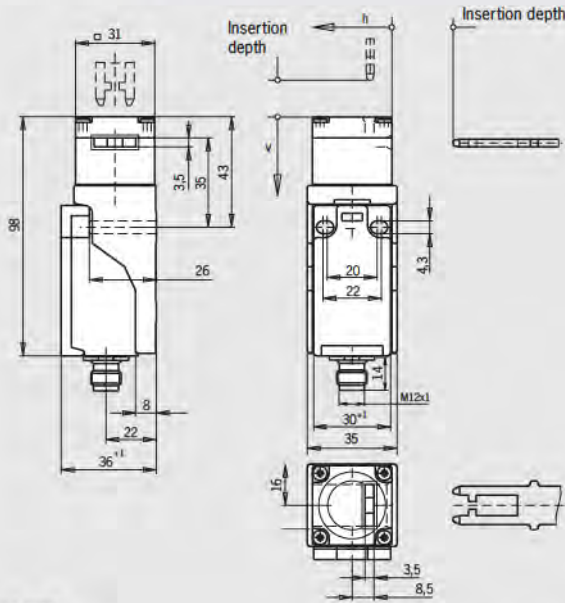
Safety Switches with Separate Actuator, Plastic Housing **EUCHNER**



Plug connector SM4
M12 plug, 4-pin

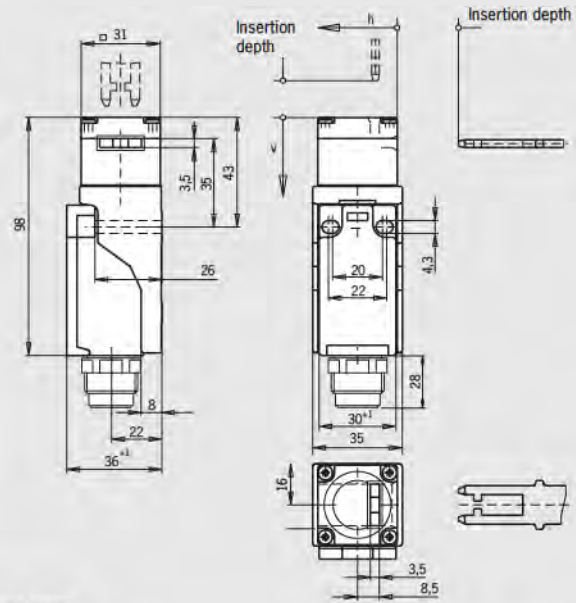
Plug connector SR6
6-pin + PE

Dimension drawing



Please order actuator separately (see pages 76-79)

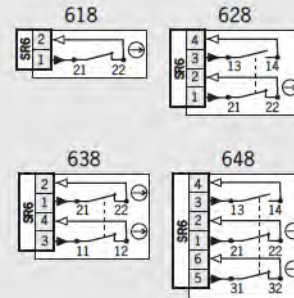
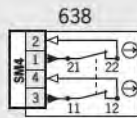
For plug connectors see page 87



Please order actuator separately (see pages 76-79)

For plug connectors see page 86

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
		2 Plug connector SR6	618 1 NC ⊖	059 445 NP2-618AS
			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

For safety precautions see page 136
For technical data see page 99



Safety switch NP

- ▶ Mounting with 40 mm spacing
- ▶ Cable entry M20 x 1.5
- ▶ Plug connector optional



Approach direction



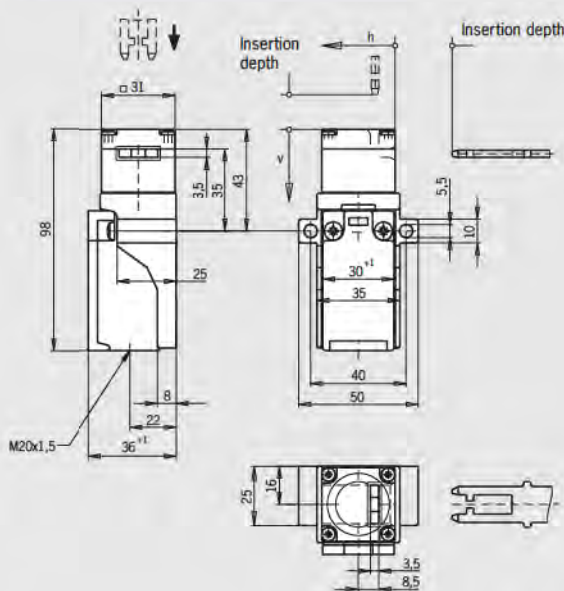
Horizontal and vertical
Can be adjusted in 90° steps

Switching elements

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

Cable entry M20 x 1.5

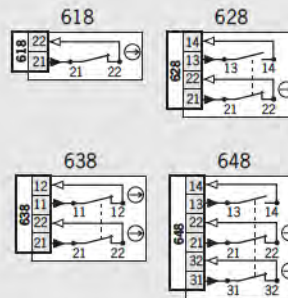
Dimension drawing



Please order
actuator separately
(see pages 76-79)

For cable glands see page 89

Wiring diagrams Actuator inserted



Ordering table

Series	Mounting	Connection	Switching element	Order No. / Item
NP	AB With 40 mm hole spacing	1 Cable entry 1 x M20 x 1.5	618 1 NC ⊖	083 680 NP1-618AB-M
			628 1 NC ⊖ + 1 NO	083 686 NP1-628AB-M
			638 2 NC ⊖	083 690 NP1-638AB-M
			648 ¹⁾ 2 NC ⊖ + 1 NO	082 276 ¹⁾ NP1-648AB-M

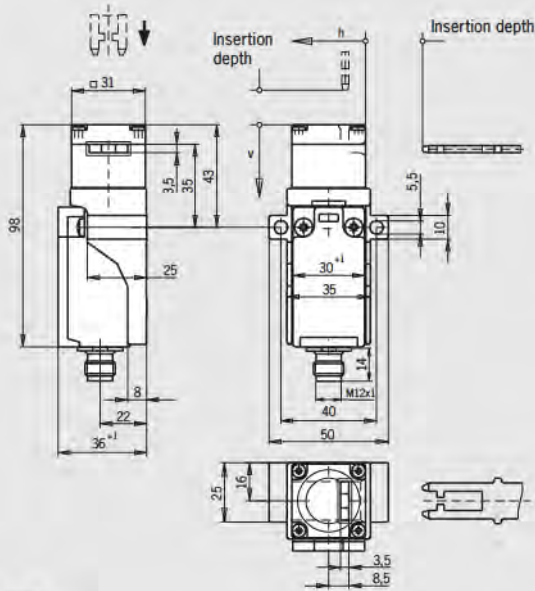
1) No -CE- approval



Plug connector SM4
M12 plug, 4-pin

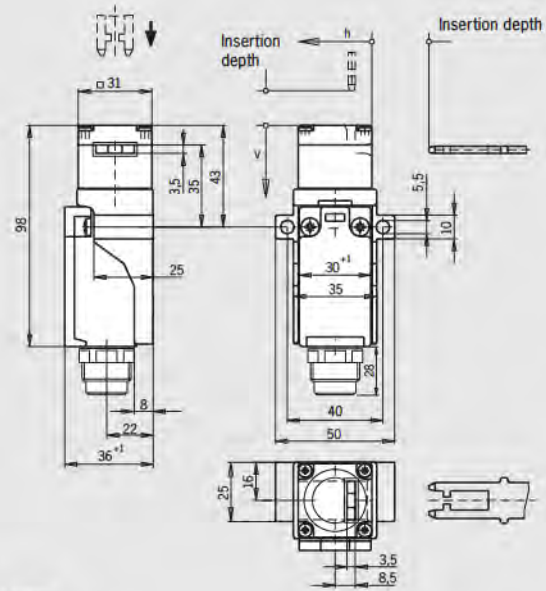
Plug connector SR6
6-pin + PE

Dimension drawing



Please order actuator separately (see pages 76-79)

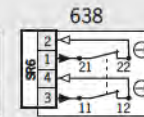
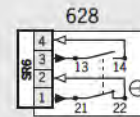
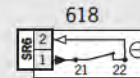
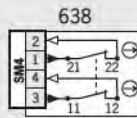
For plug connectors see page 85



Please order actuator separately (see pages 76-79)

For plug connectors see page 86

Wiring diagrams Actuator inserted



Ordering table

Series	Mounting	Connection	Switching element	Order No. / Item
NP	AB With 40 0mm spacing	3 Plug connector SM4	638 2 NC ⊖	094 509 NP3-638AB
		2 Plug connector SR6	618 1 NC ⊖	059 446 NP2-618AB
			628 1 NC ⊖ + 1 NO	059 448 NP2-628AB
			638 2 NC ⊖	059 450 NP2-638AB


For safety precautions see page 136
For technical data see page 99









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 		
Switching elements with 2 switching elements	628 1 NC  + 1 NO	638 2 NC 	
Switching elements with 3 switching elements	648 2 NC  + 1 NO		
Switching current, min., at DC 24 V	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 85)



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 86)