

Selection table for safety switches NM with separate actuator

Connection							
M		Thread M16x1.5 for cable glands					
SM4		Plug connector M12 4-pin					
Housing							
		Short					
		Long					
Switching element							
		One contact		1 NC ⊖			
		Two contacts		1 NC ⊖ + 1 NO,			
				2 NC ⊖			
		Three contacts		2 NC ⊖ + 1 NO,			
				3 NC ⊖			
Connection		Housing		Switching element			Page
M	SM4	Short	Long	One contact	Two contacts	Three contacts	
●		●		●	●		22
	●		●		●	●	23

Safety Switches with Separate Actuator, Plastic Housing EUCHNER

Safety switch NM..VZ

- ▶ Cable entry M16 x 1.5
- ▶ M12 plug connector optional



Approach direction



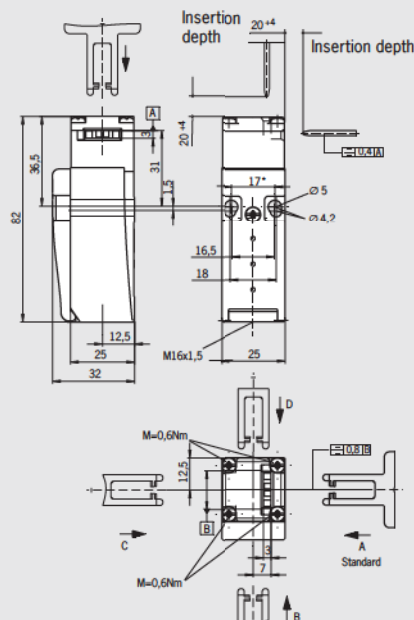
Horizontal and vertical
Can be adjusted in 90° steps

Switching elements

- ▶ **ES01** Slow-action switching element
1 NC ⊖
- ▶ **ES11** Slow-action switching element
1 NC ⊖ + 1 NO
- ▶ **ES02** Slow-action switching element
2 NC ⊖
- ▶ **ES12** Slow-action switching element
2 NC ⊖ + 1 NO
- ▶ **ES03** Slow-action switching element
3 NC ⊖

Cable entry M16 x 1.5 Short housing

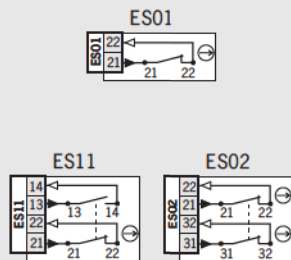
Dimension drawing



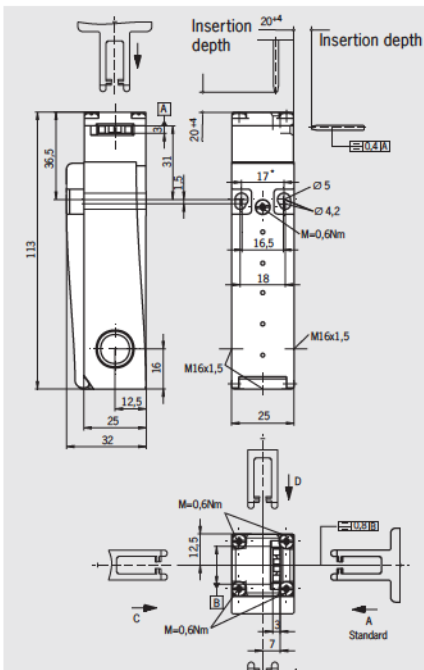
Please order
actuator separately
(see pages 74-75)

For cable glands see page 89

Wiring diagrams Actuator inserted

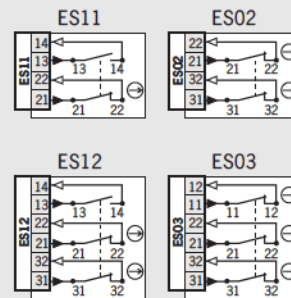


Cable entry M16 x 1.5 Long housing



Please order
actuator separately
(see pages 74-75)

For cable glands see page 89

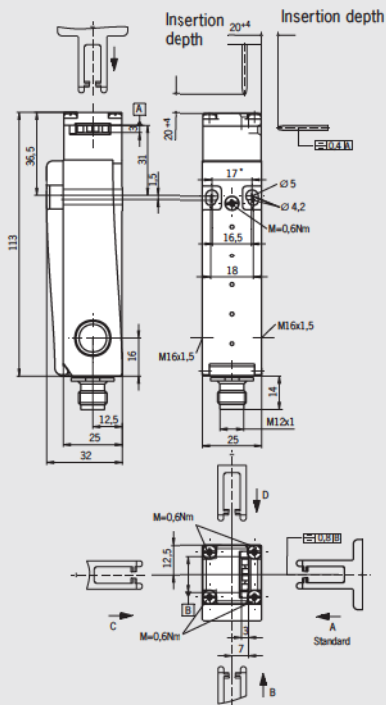


Ordering table

Series	Actuator	Connection	Housing	Switching element	Order No. / Item
NM	VZ Separate actuator	Cable entry 1 x M16 x 1.5	Short 	01 1 NC ⊖	084 451 NM01VZAM
				11 1 NC ⊖ + 1 NO	094 471 NM11VZAMC2069
				02 2 NC ⊖	094 470 NM02VZAMC2069
		Cable entry 3 x M16 x 1.5	Long 	11 1 NC ⊖ + 1 NO	084 452 NM11VZAM
				02 2 NC ⊖	084 453 NM02VZAM
				12 2 NC ⊖ + 1 NO	084 454 NM12VZAM
				03 3 NC ⊖	084 455 NM03VZAM



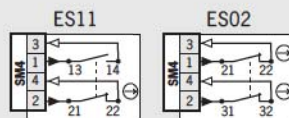
Plug connector M12
4-pin, long housing



Please order
actuator separately
(see pages 74-75)

For plug connectors see page 85

Wiring diagrams Actuator inserted



Ordering table

Series	Actuator	Connection	Housing	Switching element	Order No. / Item
NM	VZ Separate actuator	Plug connector M12	Long 	11 1 NC $\ominus$ + 1 NO	085 626 NM11VZA-SM4
				02 2 $\ddot{O}$ $\ominus$	084 564 NM02VZA-SM4

Safety switch NM..VZ



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	
Weight	approx. 0.1	kg
Max. approach speed	20	m/min
Actuating force	10	N
Extraction force	10	N
Retention force	2	N
Insertion depth	necessary minimum travel	20 mm
	permissible overtravel	4 mm

Switching element



Parameter	Value	Unit
Switching principle	Slow-action switching element	
Switching elements with 1 switching element	ES01 1 NC $\ominus$	
Switching elements with 2 switching elements	ES11 1 NC $\ominus$ + 1 NO	
	ES02 2 NC $\ominus$	
	ES12 2 NC $\ominus$ + 1 NO	
	ES03 2 NC $\ominus$	
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 M16 x 1.5



Parameter	Value	Unit
Ambient temperature	- 20 ... + 80	°C
Connection	Screw terminal	
Version	M16 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
Ambient temperature	- 20 ... + 60	°C
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}	2.5	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)