

Safety switch NM..AV / NM..AL



- ▶ Hinged actuator as solid shaft
- ▶ Shaft length 75 mm or 110 mm

Cable entry M16 x 1.5
Short housing

Cable entry M16 x 1.5
Long housing

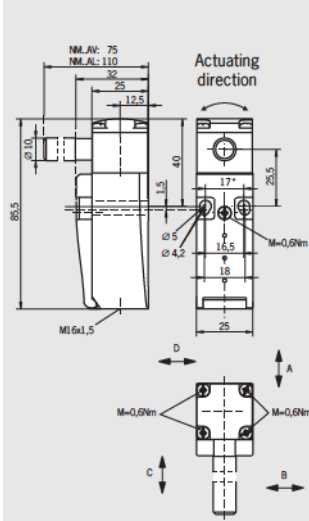
Plug connector M12
4-pin, long housing



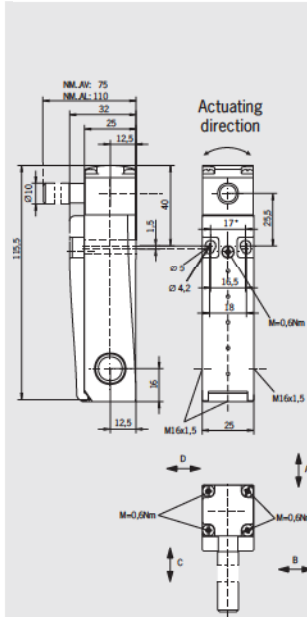
Switching elements

- ▶ **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 ⊖

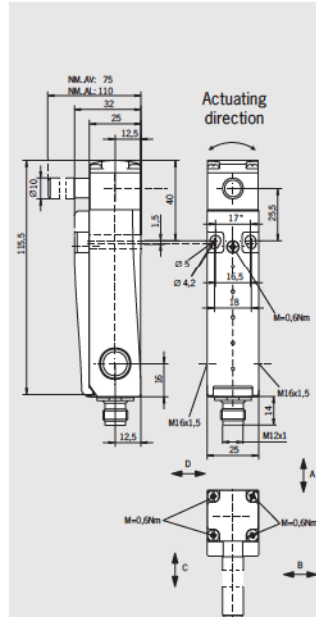
Dimension drawing



For cable glands see page 89

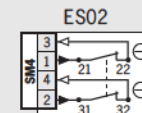
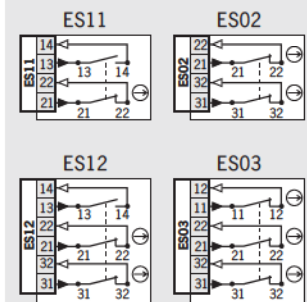
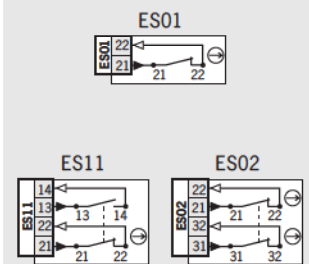


For cable glands see page 89



For plug connectors see page 85

Wiring diagrams Switch not actuated



Ordering table

Series	Actuator	Connection	Housing	Switching element	Order No. / Item
NM	AV Hinged actuator solid shaft length 75 mm	Cable entry 1 x M16 x 1.5	Short	01 1 NC ⊖	084 545 NM01AV-M
				11 1 NC ⊖ + 1 NO	095 367 NM11AV-MC2069
				02 2 NC ⊖	095 366 NM02AV-MC2069
		Cable entry 3 x M16 x 1.5	Long	11 1 NC ⊖ + 1 NO	084 546 NM11AV-M
				02 2 NC ⊖	084 547 NM02AV-M
				12 2 NC ⊖ + 1 NO	084 548 NM12AV-M
	AL Hinged actuator solid shaft length 110 mm	Cable entry 1 x M16 x 1.5	Short	03 3 NC ⊖	084 549 NM03AV-M
				01 1 NC ⊖	079 117 NM01AL-M
				11 1 NC ⊖ + 1 NO	095 365 NM11AL-MC2069
		Cable entry 3 x M16 x 1.5	Long	02 2 NC ⊖	095 364 NM02AL-MC2069
				11 1 NC ⊖ + 1 NO	079 118 NM11AL-M
				02 2 NC ⊖	079 119 NM02AL-M
	Plug connector M12		Long	12 2 NC ⊖ + 1 NO	079 120 NM12AL-M
				03 3 NC ⊖	079 121 NM03AL-M
				02 2 NC ⊖	093 246 NM02AL-SM4

Safety switch NM...



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	WO/RB	KB/HB	AV/AL/AG/AK	
	30 x 10 ⁶	20 x 10 ⁶	> 4 x 10 ⁶	Operating cycles
Weight	approx. 0.1			kg
Actuator material	Plastic; hinged actuators steel (stainless)			
Approach speed, max.	60			m/min
Actuating force	15			N

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 3 NC $\ominus$	
Switching current, min., at DC 24 V	1				mA
Switching voltage, min.	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}	2.3		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)