

Position switch NZ.WO with domed plunger



- **Version B according to EN 50041**
(hardened)
- **LED optional**
- **Plug connector optional**



Approach direction



Horizontal and vertical

LED function display (optional)

A function display is available for the following voltage ranges:

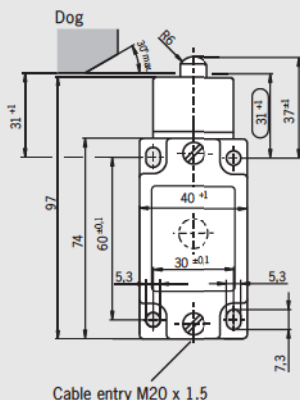
- | | | | |
|---------|---------|------|---------------|
| ▶ AC/DC | 12-60 V | | red or yellow |
| ▶ AC | 110 V | ±15% | red |
| ▶ AC | 230 V | ±15% | red |

Switching elements (see also page 13/14)

- ▶ **511** Snap-action switching element
1 NC $\ominus$ + 1 NO
- ▶ **528H** Slow-action switching element
1 NC $\ominus$ + 1 NO
- ▶ **538H** Slow-action switching element
2 NC $\ominus$
- ▶ **2121H** Slow-action switching element
4 NC $\ominus$
- ▶ **2131H** Slow-action switching element
3 NC $\ominus$ + 1 NO
- ▶ **3131H** Slow-action switching element
2 NC $\ominus$ + 2 NO

Cable entry M20 x 1.5

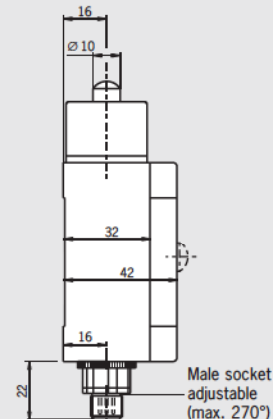
Dimension drawings



For cable glands
see page 124

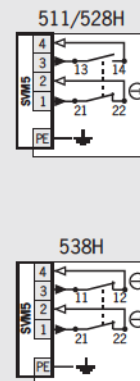
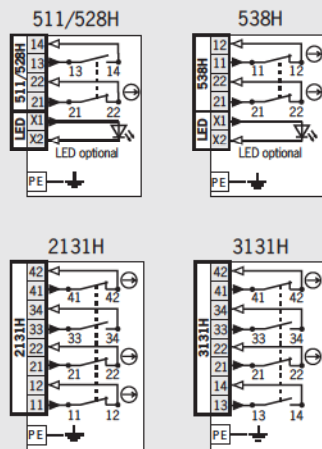
Plug connector SVM5

M12 plug, 5-pin



For mating connectors
see page 124

Wiring diagrams



Ordering table

Series	Connection	Actuator	Switching element	Function display				
				Without LED	12-60 V red LED	110 V red LED	230 V red LED	12-60 V yellow LED
NZ	1 Cable entry M20 x 1.5	WO Domed plunger	511 ¹⁾ 1 NC  + 1 NO	088 611 ¹⁾ NZ1WO-511-M	089 057 ¹⁾ NZ1WO-511L060-M	089 059 ¹⁾ NZ1WO-511L110-M	089 060 ¹⁾ NZ1WO-511L220-M	089 058 ¹⁾ NZ1WO-511L060GE-M
			528H 1 NC  + 1 NO	089 624 NZ1WO-528-M	089 078 NZ1WO-528L060-M	On request	On request	On request
			538H 2 NC 	090 878 NZ1WO-538-M	089 076 NZ1WO-538L060-M	On request	On request	On request
			2131H 3 NC  + 1 NO	089 629 NZ1WO-2131-M	-	-	-	-
			3131H 2 NC  + 2 NO	089 626 NZ1WO-3131-M	-	-	-	-
	2 Plug connector SVM5 (M12 plug)	WO Domed plunger	511 1 NC  + 1 NO	089 014 NZ2WO-511SVM5	On request	-	-	On request
			528H 1 NC  + 1 NO	090 923 NZ2WO-528SVM5	On request	-	-	On request
			538H 2 NC 	090 924 NZ2WO-538SVM5	On request	-	-	On request

1) No BG approval for switching element 511

Position switch NZ...

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	Anodized die-cast alloy						
Mechanical life	30 x 10 ⁶ operating cycles						
Ambient temperature	- 25 ... + 80						°C
Weight	Approx. 0.3						kg
Approach speed, min.	0.1						m/min
Approach speed max. ¹⁾ depending on actuator	HB	HS	PB	PS	RG, RL, RS	RK	WO
	300	60	120	30	20	80	10
Actuating force, min.	15						N

Switching element	 		Value	Unit
Parameter				
Switching principle	Snap-action switching element		Slow-action switching element	
Switching elements with 2 switching elements	511 1 NC + 1 NO		528H 1 NC + 1 NO	538H 2 NC
Switching elements with 4 switching elements	-		2121H 4 NC	2131H 3 NC + 1 NO
Min. switching current at 24 V DC	10		1	
Switching current max.	6		4	mA
Contact closing time	< 4		-	ms
Contact bounce time	< 3		-	ms
Rated impulse withstand voltage U _{imp}			2.5	kV
Contact material			Silver alloy, gold flashed	

Connection, cable entry M20 x 1.5			Value	Unit
Parameter				
Connection			Screw terminal	
Version			M20 x 1.5	
Conductor cross-section max.			Per wire 1.5 mm ²	
Degree of protection according to IEC 60529			IP 67	
Rated insulation voltage U _i			250	V AC/DC
Switching element	Snap-action switching element		Slow-action switching element	
	511		528H, 538H, 2121H, 2131H, 3131H	
Conventional thermal current I _{th}	6		4	A
Short circuit protection according to IEC 60269-1 (control circuit fuse)	6		4	A gG
Utilization category to IEC 60947-5-1	AC-12	I _e 10 A U _e 230 V	-	
	AC-15	I _e 6 A U _e 230 V	I _e 4 A U _e 230 V	
	DC-13	I _e 6 A U _e 24 V	I _e 4 A U _e 24 V	

Connection, plug connector SVM 5 (M12)			Value	Unit
Parameter				
Connection			Plug connector	
Version			M12 (4-pin + PE), male socket adjustable (max. 270°) for elbow connector	
Degree of protection according to IEC 60529			IP 67 ²⁾	
Rated insulation voltage U _i			30	V AC/DC
Switching element	Snap-action switching element 511 , Slow-action switching element 528H, 538H			
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 30 V		
	DC-13	I _e 4 A U _e 24 V		

¹⁾ The approach speed given applies in conjunction with EUCHNER trip dogs at an approach angle of 30°. At a smaller approach angle this approach speed can be exceeded.

²⁾ Screwed tight with the related plug connector (see page 124)

