



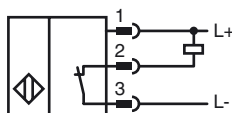
### Model Number

NEB12-18GM50-E1-V1

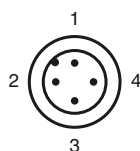
### Features

- Increased operating distance
- 12 mm virtually flush

### Connection



### Pinout



Wire colors in accordance with EN 60947-5-2

1	BN	(brown)
2	WH	(white)
3	BU	(blue)
4	BK	(black)

### Accessories

#### BF 18

Mounting flange, 18 mm

#### V1-G

4-pin, M12 female field-attachable connector

#### V1-W

4-pin, M12 female field-attachable connector

#### V1-G-2M-PUR

Cable socket, M12, 4-pin, PUR cable

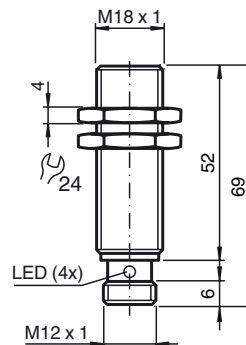
#### V1-W-2M-PUR

Cable socket, M12, 4-pin, PUR cable

#### EXG-18

Quick mounting bracket with dead stop

### Dimensions



### Technical Data

#### General specifications

Switching element function		NPN	NC
Rated operating distance	$s_n$	12 mm	
Installation		virtually flush	
Output polarity		DC	
Assured operating distance	$s_a$	0 ... 9.72 mm	
Actuating element		mild steel, e. g. 1.0037, SR235JR (formerly St37-2) 36 mm x 36 mm x 1 mm	
Reduction factor $r_{Al}$		0.26	
Reduction factor $r_{Cu}$		0.2	
Reduction factor $r_{304}$		0.63	
Reduction factor $r_{Brass}$		0.33	

#### Nominal ratings

Installation conditions		
A		in steel 1.0037 (St37): 4 mm
B		14 mm
C		36 mm
F		36 mm
Operating voltage	$U_B$	10 ... 30 V
Switching frequency	$f$	0 ... 500 Hz
Hysteresis	H	0.12 ... 1.8 mm
Reverse polarity protection		yes
Short-circuit protection		pulsing
Overload resistance		yes
Wire breakage protection		yes
Inductive overvoltage protection		yes
Surge suppression		yes
Ripple		10 %
Voltage drop	$U_d$	$\leq 2$ V
Repeat accuracy		0.6 mm
Operating current	$I_L$	0 ... 200 mA
Off-state current	$I_r$	$\leq 10$ $\mu$ A
No-load supply current	$I_0$	$\leq 11$ mA
Time delay before availability	$t_v$	$\leq 50$ ms
Indication of the switching state		LED, yellow

#### Functional safety related parameters

MTTF <sub>d</sub>	2650 a
Mission Time (T <sub>M</sub> )	20 a
Diagnostic Coverage (DC)	0 %

#### Ambient conditions

Ambient temperature	-25 ... 85 °C (-13 ... 185 °F)
Storage temperature	-40 ... 85 °C (-40 ... 185 °F)

#### Mechanical specifications

Connection type	Device connector M12 x 1, 4-pin
Housing material	brass, nickel-plated
Sensing face	PBT
Protection degree	IP67
Mass	50 g

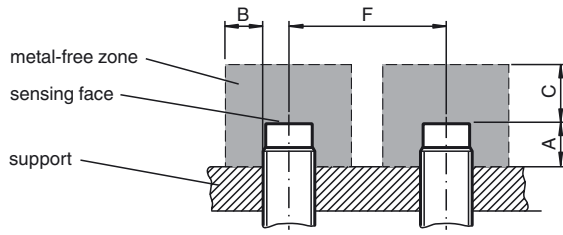
#### Compliance with standards and directives

Standard conformity	
Standards	EN 60947-5-2:2007 IEC 60947-5-2:2007

#### Approvals and certificates

CCC approval	Products with a maximum operating voltage of $\leq 36$ V do not bear a CCC marking because they do not require approval.
--------------	--

Installation conditions



Release date: 2012-09-12 13:39 Date of issue: 2012-09-12 231730\_eng.xml