



### Model Number

NEB6-12GM50-E0-V1

### Features

- Increased operating distance
- 6 mm flush

### Accessories

#### BF 12

Mounting flange, 12 mm

#### V1-G

Female connector, M12, 4-pin, field attachable

#### V1-W

Female connector, M12, 4-pin, field attachable

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

Female cordset, M12, 4-pin, PUR cable

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

Female cordset, M12, 4-pin, PUR cable

## Technical Data

### General specifications

Switching element function		NPN	NO
Rated operating distance	$s_n$	6 mm	
Installation		quasi flush	
Output polarity		DC	
Assured operating distance	$s_a$	0 ... 4.8 mm	
Actuating element		mild steel, e. g. 1.0037, SR235JR (formerly St37-2)	
		18 mm x 18 mm x 1 mm	
Reduction factor $r_{Al}$		0.28	
Reduction factor $r_{Cu}$		0.2	
Reduction factor $r_{304}$		0.7	
Reduction factor $r_{Brass}$		0.35	

### Nominal ratings

#### Installation conditions

A		in steel 1.0037 (St37): 2.4 mm
		in other metal: 1.2 mm

B		12 mm
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C		18 mm
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F		24 mm
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Operating voltage	$U_B$	10 ... 30 V DC
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Switching frequency	$f$	0 ... 800 Hz
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Hysteresis	H	0.06 ... 1.2 mm
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Reverse polarity protection		yes
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Short-circuit protection		pulsing
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Overload resistance		yes
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Wire breakage protection		yes
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Surge suppression		yes
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Ripple		10 %
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Voltage drop	$U_d$	$\leq 2$ V
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Repeat accuracy	R	0.3 mm
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Operating current	$I_L$	0 ... 200 mA, above 70°C $\leq 150$ mA
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Off-state current	$I_r$	$\leq 10$ $\mu$ A
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No-load supply current	$I_0$	$\leq 15$ mA
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Time delay before availability	$t_v$	$\leq 50$ ms
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Switching state indicator		LED, yellow
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### Functional safety related parameters

MTTF <sub>d</sub>		1740 a
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Mission Time ( $T_M$ )		20 a
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Diagnostic Coverage (DC)		0 %
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### Ambient conditions

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

Connection type		Connector M12 x 1, 4-pin
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Housing material		brass, nickel-plated
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Sensing face		PBT
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Degree of protection		IP67
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Mass		20 g
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### Compliance with standards and directives

#### Standard conformity

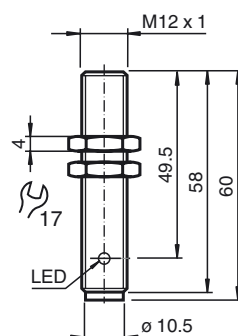
Standards		EN 60947-5-2:2007 IEC 60947-5-2:2007
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### Approvals and certificates

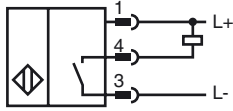
UL approval		cULus Listed, General Purpose
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CCC approval		CCC approval / marking not required for products rated $\leq 36$ V
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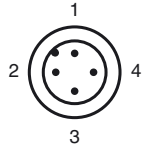
## Dimensions



**Electrical Connection**



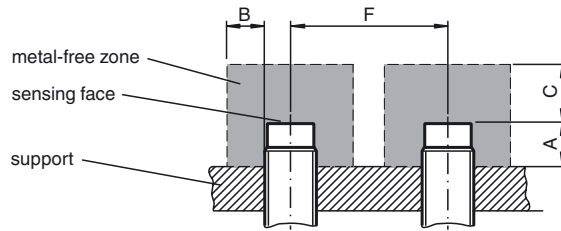
**Pinout**



Wire colors in accordance with EN 60947-5-2

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

**Installation Conditions**



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