

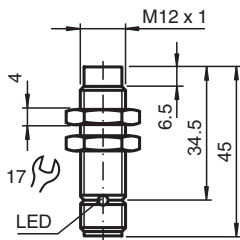


## Inductive sensor NBN4-12GM40-E2-T-V1

- 4 mm non-flush
- Short version
- Extended temperature range



### Dimensions



### Technical Data

#### General specifications

Switching function		Normally open (NO)
Output type		PNP
Rated operating distance	$s_n$	4 mm
Installation		non-flush
Output polarity		DC
Assured operating distance	$s_a$	0 ... 3.24 mm
Actuating element		mild steel, e. g. 1.0037, SR235JR (formerly St37-2) 12 mm x 12 mm x 1 mm
Reduction factor $r_{Al}$		0.5
Reduction factor $r_{Cu}$		0.4
Reduction factor $r_{304}$		0.8
Reduction factor $r_{Brass}$		0.5
Output type		3-wire

#### Nominal ratings

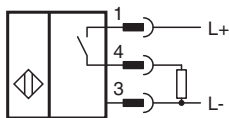
Installation conditions		
A		8 mm
B		9 mm
C		8 mm
F		27 mm
Operating voltage	$U_B$	10 ... 30 V
Switching frequency	f	0 ... 800 Hz
Hysteresis	H	0.03 ... 0.88 mm

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## Technical Data

Reverse polarity protection		yes
Short-circuit protection		yes
Overload resistance		yes
Wire breakage protection		yes
Inductive overvoltage protection		yes
Surge suppression		yes
Ripple		10 %
Voltage drop	$U_d$	$\leq 2.5 \text{ V}$
Repeat accuracy	R	0.2 mm
Operating current	$I_L$	0 ... 200 mA
Off-state current	$I_r$	$\leq 0.01 \text{ mA}$
No-load supply current	$I_0$	$\leq 7 \text{ mA}$
Time delay before availability	$t_v$	$\leq 40 \text{ ms}$
Switching state indicator		all direction LED, yellow
<b>Functional safety related parameters</b>		
Mission Time ( $T_M$ )		20 a
Diagnostic Coverage (DC)		0 %
<b>Compliance with standards and directives</b>		
Standard conformity		
Standards		EN IEC 60947-5-2
<b>Approvals and certificates</b>		
CCC approval		CCC approval / marking not required for products rated $\leq 36 \text{ V}$
<b>Ambient conditions</b>		
Ambient temperature		-25 ... 100 °C (-13 ... 212 °F)
Storage temperature		-40 ... 100 °C (-40 ... 212 °F)
<b>Mechanical specifications</b>		
Connection type		Connector plug
Housing material		brass, nickel-plated
Sensing face		PBT
Degree of protection		IP67
Connector		
Threading		M12 x 1
Number of pins		3
Mass		12 g
Dimensions		
Length		37 mm
Diameter		12 mm

## Connection



## Connection Assignment



Wire colors in accordance with EN 60947-5-2

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