

# Inductive sensor

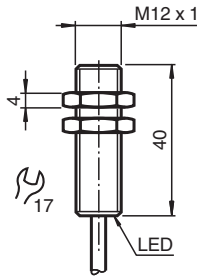
## NCB2-12GM40-E2-3G-3D-5M



- 2 mm flush
- ATEX-/IECEX-approvals for zone 2/22 (Ex ec/tc)
- Stainless steel housing
- 5 meter connection cable



### Dimensions



### Technical Data

#### General specifications

Switching function		Normally open (NO)
Output type		PNP
Rated operating distance	$s_n$	2 mm
Installation		flush
Output polarity		DC
Assured operating distance	$s_a$	0 ... 1.62 mm
Actual operating distance	$s_r$	1.8 ... 2.2 mm typ. 2 mm
Reduction factor $r_{Al}$		0.3
Reduction factor $r_{Cu}$		0.17
Reduction factor $r_{304}$		0.67
Reduction factor $r_{Brass}$		0.35
Output type		3-wire

#### Nominal ratings

Operating voltage	$U_B$	10 ... 30 V DC
Switching frequency	$f$	0 ... 2500 Hz
Hysteresis	$H$	3 ... 15 % typ. 6 %
Reverse polarity protection		reverse polarity protected
Short-circuit protection		pulsing
Voltage drop	$U_d$	$\leq 3$ V
Voltage drop at $I_L$		
Voltage drop $I_L = 200$ mA, switching element on	$U_d$	1 ... 2 V typ. 1.5 V

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## Technical Data

Operating current	$I_L$	$\leq 200$ mA
Off-state current	$I_r$	0 ... 0.5 mA typ. 0.01 mA
No-load supply current	$I_0$	$\leq 15$ mA
Time delay before availability	$t_v$	$\leq 100$ ms
Switching state indicator		LED, yellow
<b>Functional safety related parameters</b>		
MTTF <sub>d</sub>		1507 a
Mission Time (T <sub>M</sub> )		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>		
IECEX approval		
Equipment protection level Gc (ec)		IECEX TUR 21.0017X
Equipment protection level Dc (tc)		IECEX TUR 21.0018X
ATEX approval		
Equipment protection level Gc (ec)		TÜV 20 ATEX 8523 X
Equipment protection level Dc (tc)		TÜV 20 ATEX 8524 X
UL approval		cULus Listed, General Purpose, Class 2 Power Source
CCC approval		
Hazardous Location		2024322315005977 2024322315005859
<b>Ambient conditions</b>		
Ambient temperature		-25 ... 70 °C (-13 ... 158 °F)
Storage temperature		-40 ... 85 °C (-40 ... 185 °F)
<b>Mechanical specifications</b>		
Connection type		cable
Housing material		Stainless steel 1.4305 / AISI 303
Sensing face		PBT
Degree of protection		IP66 / IP67
Cable		
Wire end ferrules		yes
Cable diameter		4.6 mm $\pm$ 0.2 mm
Bending radius		> 10 x cable diameter
Material		PVC
Color		grey
Number of cores		3
Core cross section		0.34 mm <sup>2</sup>
Length	L	5 m
Mass		177 g
Dimensions		
Length		40 mm
Diameter		12 mm
<b>General information</b>		
Scope of delivery		2 self locking nuts in scope of delivery
Use in the hazardous area		see instruction manuals

## Connection Assignment



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