

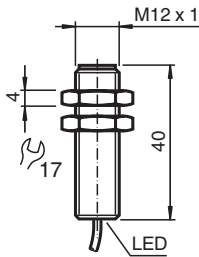


Inductive sensor NRB4-12GS40-E2

- Reduction factor = 1
- Magnetic field resistant
- Stainless steel housing



Dimensions



Technical Data

General specifications			
Switching function			Normally open (NO)
Output type			PNP
Rated operating distance	s_n		4 mm
Installation			flush
Output polarity			switched high
Assured operating distance	s_a		0 ... 3.24 mm
Reduction factor r_{Al}			1
Reduction factor r_{Cu}			1
Reduction factor r_{304}			1
Reduction factor r_{St37}			1
Output type			3-wire
Nominal ratings			
Operating voltage	U_B		10 ... 30 V DC
Switching frequency	f		0 ... 2000 Hz
Hysteresis	H		typ. 5 %
Reverse polarity protection			reverse polarity protected
Short-circuit protection			pulsing
Voltage drop	U_d		≤ 2 V
Rated insulation voltage	U_{BIS}		60 V
Operating current	I_L		0 ... 200 mA
Off-state current	I_r		0 ... 0.5 mA typ. 0.1 μ A at 25 °C
No-load supply current	I_0		≤ 14 mA

Release date: 2025-02-27 Date of issue: 2025-02-27 Filename: 292520_eng.pdf

Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

Pepperl+Fuchs Group
www.pepperl-fuchs.com

USA: +1 330 486 0001
fa-info@us.pepperl-fuchs.com

Germany: +49 621 776 1111
fa-info@de.pepperl-fuchs.com

Singapore: +65 6779 9091
fa-info@sg.pepperl-fuchs.com

PF PEPPERL+FUCHS

Technical Data

Time delay before availability	t_v	max. 15 ms
Constant magnetic field	B	200 mT
Alternating magnetic field	B	200 mT
Switching state indicator		all direction LED, yellow
Functional safety related parameters		
MTTF _d		1393 a
Mission Time (T _M)		20 a
Diagnostic Coverage (DC)		0 %
Compliance with standards and directives		
Standard conformity		
Standards		EN IEC 60947-5-2
Approvals and certificates		
Protection class		II
Rated insulation voltage	U _i	60 V
Rated impulse withstand voltage	U _{imp}	800 V
UL approval		cULus Listed, General Purpose Class 2 power source
CCC approval		CCC approval / marking not required for products rated ≤36 V
Ambient conditions		
Ambient temperature		-25 ... 70 °C (-13 ... 158 °F)
Storage temperature		-40 ... 85 °C (-40 ... 185 °F)
Mechanical specifications		
Connection type		cable
Housing material		Stainless steel 1.4305 / AISI 303
Sensing face		PBT
Degree of protection		IP68 / IP69K
Cable		
Wire end ferrules		yes
Cable diameter		4.3 mm ± 0.1 mm
Bending radius		> 15 x cable diameter
Material		PVC
Color		black
Number of cores		3
Core cross section		0.34 mm ²
Length	L	2 m
Mass		62 g
Dimensions		
Length		40 mm
Diameter		12 mm
General information		
Scope of delivery		2 self locking nuts in scope of delivery

Connection

