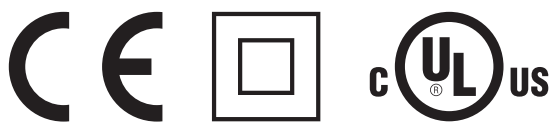




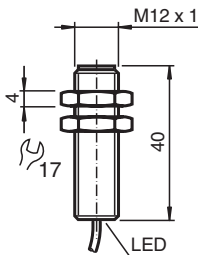
Inductive sensor

NRB4-12GS40-E2

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



Dimensions



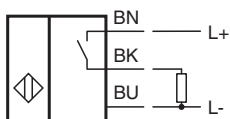
Technical Data

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 %

Technical Data

Reverse polarity protection		reverse polarity protected
Short-circuit protection		pulsing
Voltage drop	U_d	$\leq 2 \text{ V}$
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 μA at 25 °C
No-load supply current	I_0	$\leq 14 \text{ mA}$
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 60947-5-2:2007 EN 60947-5-2/A1:2012 IEC 60947-5-2:2007 IEC 60947-5-2 AMD 1:2012
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 $\leq 36 \text{ V}$
Ambient conditions		
Ambient temperature		-25 ... 70 °C (-13 ... 158 °F)
Storage temperature		-40 ... 85 °C (-40 ... 185 °F)
Mechanical specifications		
Connection type		cablc PVC , 2 m
Core cross-section		0.34 mm ²
Housing material		Stainless steel 1.4305 / AISI 303
Sensing face		PBT
Degree of protection		IP68 / IP69K
Cable		
Cable diameter		4.3 mm $\pm$ 0.1 mm
Bending radius		> 15 x cable diameter
Mass		62 g
General information		
Scope of delivery		2 self locking nuts in scope of delivery

Connection



Accessories

	BF 12	Mounting flange, 12 mm
	EXG-12	Quick mounting bracket with dead stop

Release date: 2020-03-24 Date of issue: 2020-03-30 Filename: 292520_eng.pdf