

Inductive sensor

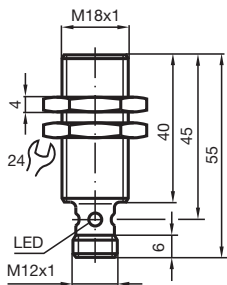
NRB12-18GS40-E2-V1



- 12 mm quasi flush
- 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	12 mm
Installation		quasi flush
Output polarity		DC
Assured operating distance	s_a	0 ... 9.72 mm
Reduction factor r_{Al}		1
Reduction factor r_{Cu}		1
Reduction factor r_{304}		1
Reduction factor r_{Si37}		1
Nominal ratings		
Operating voltage	U_B	10 ... 30 V

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

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Technical Data

Switching frequency	f	0 ... 600 Hz
Hysteresis	H	typ. 3 %
Reverse polarity protection		reverse polarity protected
Short-circuit protection		pulsing
Voltage drop	U_d	≤ 3 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	≤ 28 mA
Constant magnetic field	B	200 mT
Alternating magnetic field	B	200 mT
Switching state indicator		Multihole-LED, yellow

Functional safety related parameters

MTTF _d	1248 a
Mission Time (T _M)	20 a
Diagnostic Coverage (DC)	0 %

Compliance with standards and directives

Standard conformity	
Standards	EN 60947-5-2:2007 IEC 60947-5-2:2007

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
CSA approval	cCSAus Listed, General Purpose
CCC approval	CCC approval / marking not required for products rated ≤ 36 V

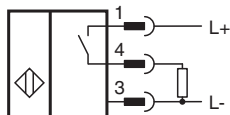
Ambient conditions

Ambient temperature	-25 ... 70 °C (-13 ... 158 °F)
Storage temperature	-40 ... 85 °C (-40 ... 185 °F)

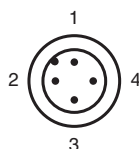
Mechanical specifications

Connection type	Connector M12 x 1 , 4-pin
Housing material	Stainless steel 1.4305 / AISI 303
Sensing face	Crastin (PBTB)
Degree of protection	IP67

Connection



Connection Assignment



Wire colors in accordance with EN 60947-5-2

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