



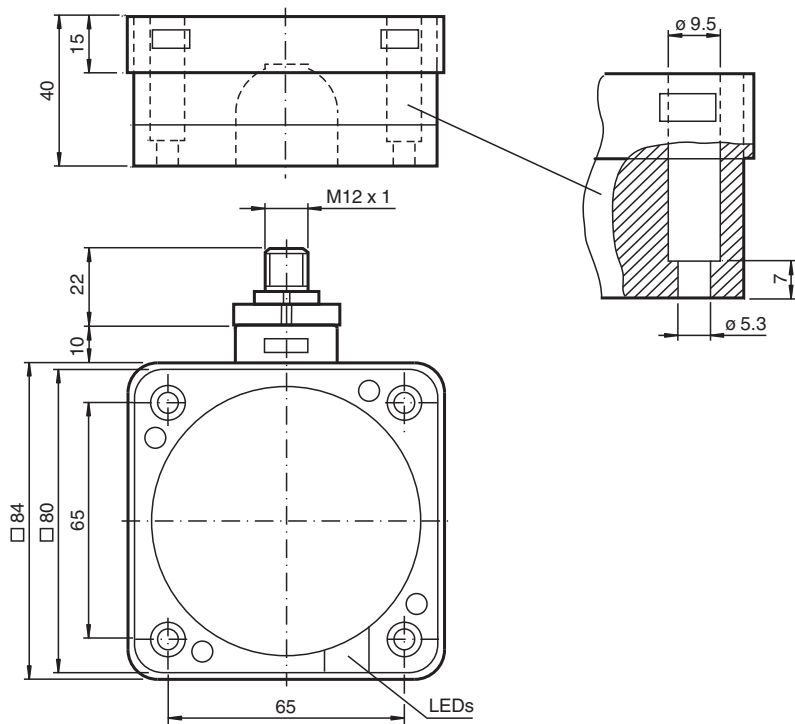
Inductive sensor

NRB50-FP-E2-P3-V1

- 50 mm flush
- Reduction factor = 1



Dimensions



Technical Data

General specifications			
Switching function		Normally open (NO)	
Output type		PNP	
Rated operating distance	S _n	50 mm	
Installation		flush	
Output polarity		DC	
Assured operating distance	S _a	0 ... 40.5 mm	
Reduction factor r _{Al}		1	
Reduction factor r _{Cu}		1	

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

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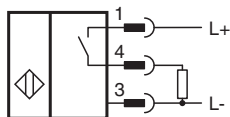
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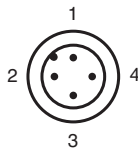
Technical Data

Reduction factor r_{304}		1
Reduction factor r_{317}		1
Nominal ratings		
Operating voltage	U_B	10 ... 30 V DC
Switching frequency	f	0 ... 80 Hz
Hysteresis	H	typ. 3 %
Reverse polarity protection		reverse polarity protected
Short-circuit protection		pulsing
Voltage drop	U_d	≤ 3 V
Rated insulation voltage	U_{BIS}	50 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	≤ 20 mA
Time delay before availability	t_v	≤ 300 ms
Operating voltage indicator		LED, green
Switching state indicator		LED, yellow
Functional safety related parameters		
MTTF _d		944 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		
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		0 ... 50 °C (32 ... 122 °F) (± 10 % changing operating distance) -25 ... 70 °C (-13 ... 158 °F) (± 20 % changing operating distance)
Storage temperature		-25 ... 85 °C (-13 ... 185 °F)
Mechanical specifications		
Connection type		Connector M12 x 1 , 4-pin
Housing material		PBT/metal
Sensing face		PBT
Housing base		metal
Degree of protection		IP68

Connection



Connection Assignment



Wire colors in accordance with EN 60947-5-2

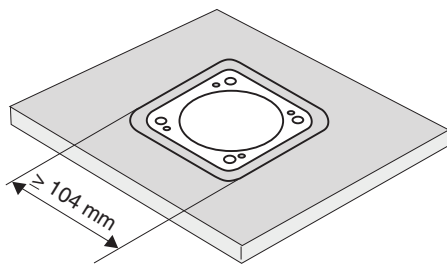
1	BN	(brown)
2	WH	(white)
3	BU	(blue)
4	BK	(black)

Mounting

These sensors are particularly suitable for embedded installation in floor conveyor systems. The installation of the switch in a metal base plate provides it with considerable protection against mechanical damage.

Care should be taken to ensure that the cut out in the base plate is at least 104 mm x 104 mm and that the sensor is positioned centrally within this cut out. The active surface of the sensor must not be recessed with respect to the front face of the base plate.

The high switching distance guarantees safe detection and thus control of the floor conveyor system.



Caution!
After removal of the metal screen the proximity switch can no longer be mounted as an embedded installation.

Accessories

	V1-G-2M-PUR	Female cordset, M12, 4-pin, PUR cable
	V1-W-2M-PUR	Female cordset, M12, 4-pin, PUR cable