

Inductive sensor

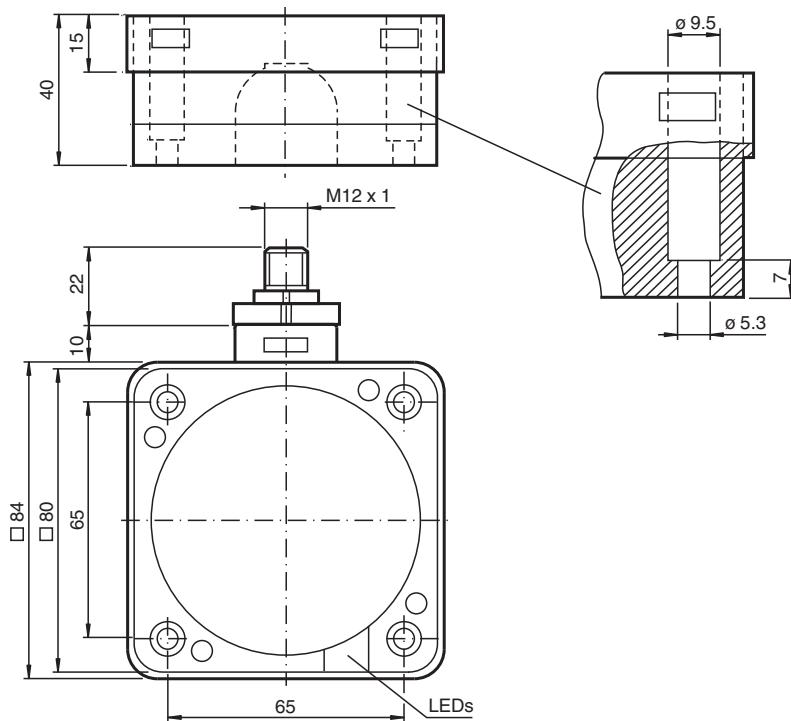
NCB50-FP-A2-C-P3-V1



- 50 mm flush
- 3-wire DC
- Weld Immune
- Optimum use at a distance >50 cm



Dimensions



Technical Data

Release date: 2024-05-28 Date of issue: 2024-06-07 Filename: 127200_eng.pdf

General specifications

Switching function	complementary	
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_{AI}		0.38
Reduction factor r_{Cu}		0.35
Reduction factor r_{304}		0.83

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

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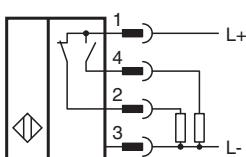
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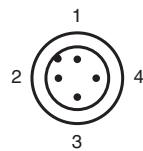
Technical Data

Output type	4-wire	
Nominal ratings		
Operating voltage	U_B	10 ... 60 V DC
Switching frequency	f	0 ... 1 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
No-load supply current	I_0	≤ 20 mA
Time delay before availability	t_v	≤ 1 s
Tuning-out		≥ 50 ms
Operating voltage indicator		LED, green
Switching state indicator		LED, yellow
Functional safety related parameters		
MTTF _d		660 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		
UL approval	cULus Listed, General Purpose	
CCC approval	Certified by China Compulsory Certification (CCC)	
Ambient conditions		
Ambient temperature	-25 ... 70 °C (-13 ... 158 °F)	
Mechanical specifications		
Connection type	Connector plug M12 x 1 , 4-pin	
Housing material	PBT/metal	
Sensing face	PBT, active surface PTFE coated	
Housing base	metal	
Degree of protection	IP68	
Dimensions		
Height	40 mm	
Width	84 mm	
Length	84 mm	

Connection



Connection Assignment



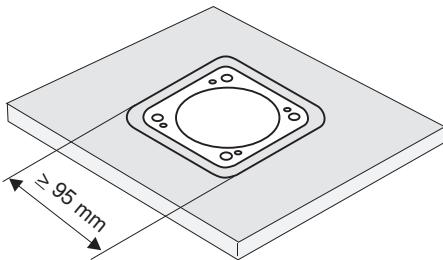
Wire colors in accordance with EN 60947-5-2

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

Mounting

These sensors are especially designed for embeddable mounting in conveyor floors. Due to its precise location in metal base plates the sensor is afforded a high degree of mechanical protection. No clearance is required between the sensor and the base plate, avoiding the need for protective guarding to prevent possible foot injury.

The large sensing range ensures positive detection, and thus provides consistent control and monitoring of the conveyor.



Warning!

Once the metal screening has been removed, the sensor can no longer be embeddable mounted.