

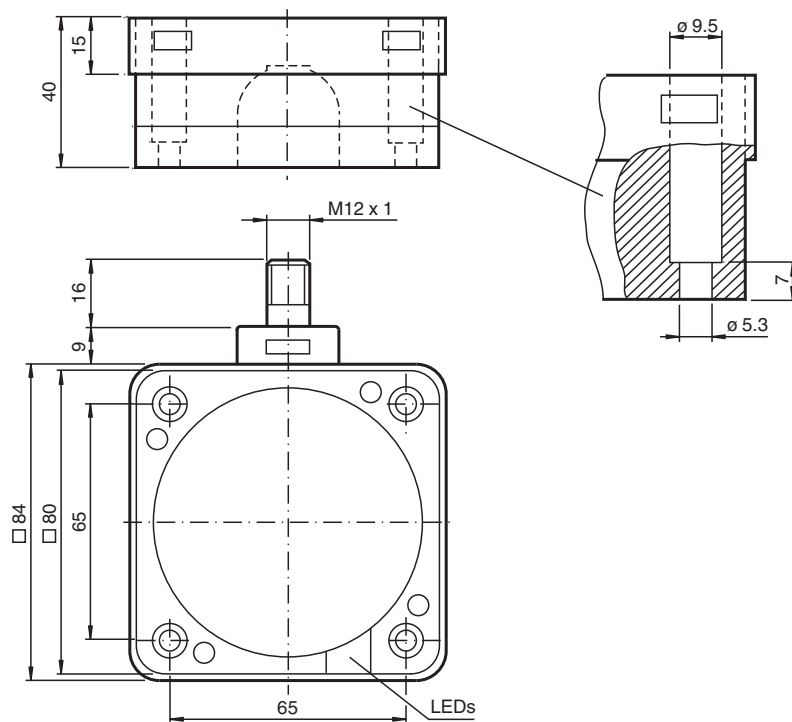


Inductive sensor NCB40-FP-N0-P1-V1

- 40 mm flush
- NAMUR output
- Polarity reversal protected



Dimensions



Technical Data

General specifications

Switching function		Normally closed (NC)
Output type		NAMUR
Rated operating distance	s_n	40 mm
Installation		flush
Assured operating distance	s_a	0 ... 32 mm
Actual operating distance	s_r	36 ... 44 mm typ. 40 mm
Reduction factor r_{AI}		0.35
Reduction factor r_{Cu}		0.35
Reduction factor r_{304}		0.8

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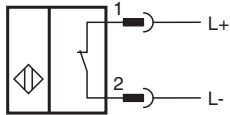
Technical Data

Output type		2-wire
Nominal ratings		
Nominal voltage	U _o	8.2 V (R _i approx. 1 kΩ)
Switching frequency	f	0 ... 80 Hz
Hysteresis	H	0 ... 5 % typ. 3 %
Reverse polarity protection		reverse polarity protected
Short-circuit protection		yes
Current consumption		
Measuring plate not detected		≥ 3 mA
Measuring plate detected		≤ 1 mA
Time delay before availability	t _v	≤ 20 ms
Switching state indicator		LED, yellow
Functional safety related parameters		
MTTF _d		2368 a
Mission Time (T _M)		20 a
Diagnostic Coverage (DC)		0 %
Compliance with standards and directives		
Standard conformity		
NAMUR		EN 60947-5-6:2000 IEC 60947-5-6:1999
Electromagnetic compatibility		NE 21:2007
Standards		EN IEC 60947-5-2
Approvals and certificates		
IECEX approval		
Equipment protection level Ga		IECEX PTB 11.0021X
Equipment protection level Gb		IECEX PTB 11.0021X
Equipment protection level Da		IECEX PTB 11.0021X
Equipment protection level Mb		IECEX PTB 11.0021X
ATEX approval		
Equipment protection level Ga		PTB 00 ATEX 2032 X
Equipment protection level Gb		PTB 00 ATEX 2032 X
Equipment protection level Da		PTB 00 ATEX 2032 X
UL approval		
Ordinary Location		E87056
Hazardous Location		E501628
Control drawing		116-0451
CCC approval		
Hazardous Location		2020322315002304
CML approval		on request
ANZEX		19.3001X
Ambient conditions		
Ambient temperature		-25 ... 100 °C (-13 ... 212 °F)
Storage temperature		-40 ... 100 °C (-40 ... 212 °F)
Mechanical specifications		
Connection type		Connector plug
Housing material		PBT
Sensing face		PBT
Housing base		PBT
Degree of protection		IP67
Connector		
Threading		M12 x 1
Number of pins		4
Mass		515 g

Technical Data

Dimensions	
Height	40 mm
Width	83 mm
Length	83 mm
General information	
Use in the hazardous area	see instruction manuals

Connection Assignment



Wire colors in accordance with EN 60947-5-6

1		BN	(brown)
2		BU	(blue)

Installation Conditions

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.

