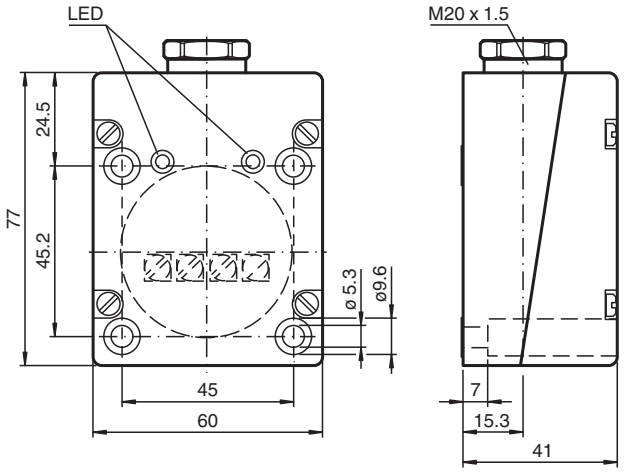
Inductive sensor

NBB25-FPS-A2

- 25 mm flush
- 4-wire DC

Dimensions



Technical Data

General specifications		
Switching function		complementary
Output type		PNP
Rated operating distance	s_n	25 mm
Installation		flush
Output polarity		DC
Assured operating distance	s_a	0 ... 15.75 mm
Actuating element		mild steel, e. g. 1.0037, SR235JR (formerly St37-2) 75 mm x 75 mm x 1 mm
Reduction factor r_{Al}		0.5
Reduction factor r_{Cu}		0.4
Reduction factor r_{304}		0.8
Reduction factor r_{Brass}		0.5
Output type		4-wire
Nominal ratings		
Operating voltage	U_B	10 ... 30 V DC
Switching frequency	f	0 ... 70 Hz

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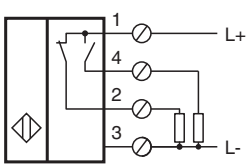
Technical Data

Hysteresis	H	0.05 ... 5.5 mm
Reverse polarity protection		yes
Short-circuit protection		yes
Overload resistance		yes
Wire breakage protection		yes
Inductive overvoltage protection		yes
Surge suppression		yes
Ripple		10 %
Voltage drop	U_d	≤ 2.5 V
Repeat accuracy	R	1 mm
Operating current	I_L	0 ... 200 mA
Off-state current	I_r	≤ 0.01 mA
No-load supply current	I_0	≤ 20 mA
Time delay before availability	t_v	≤ 100 ms
Operating voltage indicator		LED, green
Switching state indicator		LED, yellow
Functional safety related parameters		
$MTTF_d$		1390 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		
CCC approval		CCC approval / marking not required for products rated ≤36 V
Ambient conditions		
Ambient temperature		-25 ... 85 °C (-13 ... 185 °F)
Storage temperature		-40 ... 85 °C (-40 ... 185 °F)
Mechanical specifications		
Connection type		screw terminals
Core cross section		up to 2.5 mm^2
Housing material		PBT
Sensing face		PBT
Housing base		PBT
Degree of protection		IP65
Mass		270 g
Dimensions		
Height		41 mm
Width		60 mm
Length		77 mm

Connection



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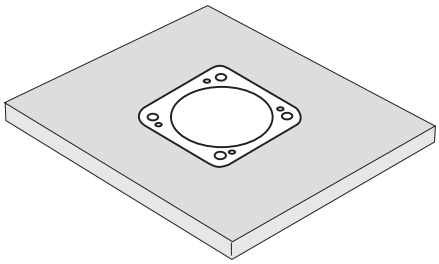
Installation Conditions

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.



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