

Inductive sensor

NBB20+U5A+B3

- Basic series
- NO/NC programmable
- Adjustable sensor head
- Oscillator monitoring



Technical Data

General specifications

Switching function		Normally open/closed (NO/NC) programmable
Output type		AS-Interface
Rated operating distance	s_n	20 mm
Installation		flush
Assured operating distance	s_a	0 ... 16.2 mm
Actual operating distance	s_r	18 ... 22 mm typ. 20 mm
Reduction factor r_{Al}		0.4
Reduction factor r_{Cu}		0.35
Reduction factor r_{304}		0.85
Output type		2-wire

Nominal ratings

Operating voltage	U_B	26.5 ... 31.9 V via AS-i bus system
Switching frequency	f	0 ... 150 Hz
Hysteresis	H	1 ... 15 typ. 5 %
Reverse polarity protection		reverse polarity protected
No-load supply current	I_0	≤ 25 mA
Time delay before availability	t_v	≤ 1000 ms
Operating voltage indicator		LED, green
Switching state indicator		LED, yellow

Standard conformity

Standards		IEC / EN 60947-5-2:2004
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Ambient conditions

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

Mechanical specifications

Core cross section		up to 1.5 mm ²
Housing material		PBT
Sensing face		PBT
Degree of protection		IP68

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

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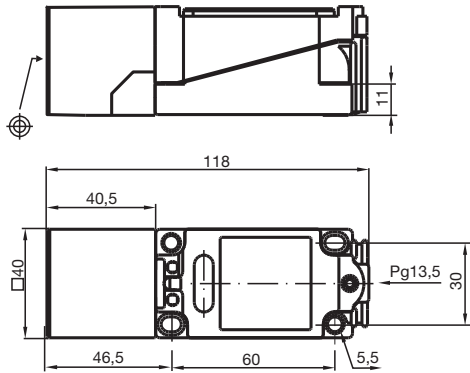
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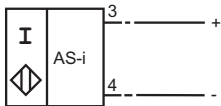
 PEPPERL+FUCHS

Dimensions



Connection

B3



Additional Information

Programming Instructions

Address 00 preset, alterable
via Busmaster or
programming units
IO-Code 1
ID-Code 1

Data bit

Bit	Function
D0	switching state ¹⁾ (0 = damped; 1 = undamped)
D1	not used
D2	oscillator monitoring (0= oscillator defective, 1=normal operation)
D3	not used

Parameter bit

Bit	Function
P0	not used
P1	switching element function ²⁾ (0 = NC; 1 = NO)
P2	not used
P3	not used

- 1) Applies to NO funktion (P1 = 1; preset),
with NC funktion (P1 = 0) reversed characteristics
2) Default setting: NO