Model Number

NBB20+U1+B3B

Features

- **Basic series**
- **NO/NC programmable**
- **Adjustable sensor head**
- **Oscillator monitoring**
- **On/Off delay (disconnectable)**
- **A/B slave with extended addressing possibility for up to 62 slaves**

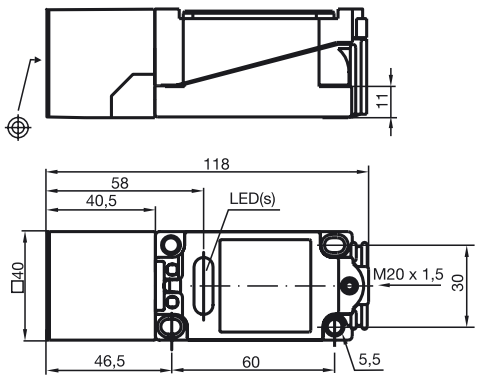
Accessories

V1-M20-80
Receptacles, M12/M20; plastic version
V1-G
Female connector, M12, 4-pin, field attachable
V1-W
Female connector, M12, 4-pin, field attachable
MHW 01
Modular mounting bracket
V1-W-2M-PUR
Female cordset, M12, 4-pin, PUR cable
V1-G-2M-PUR
Female cordset, M12, 4-pin, PUR cable
VAZ-RK-PUR 2x1,5-YE 100M
AS-Interface round cable

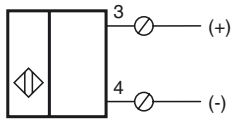
Technical Data

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
Design data		
Time delay before availability	t_v	≤ 1000 ms
Operating voltage indicator		LED, green
Switching state indicator		LED, yellow
Error indicator		LED, red
Ambient conditions		
Ambient temperature		-25 ... 70 °C (-13 ... 158 °F)
Storage temperature		-40 ... 85 °C (-40 ... 185 °F)
Mechanical specifications		
Connection type		screw terminals
Core cross-section		≤ 2.5 mm²
Housing material		PBT
Sensing face		PBT
Degree of protection		IP68
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

Dimensions



Electrical Connection



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Programming Instructions

Adress 00	preset, alterable via Busmaster or programming units
IO-Code	0
ID-Code	A
ID1-Code	7
ID2-Code	E

Data bit

Bit	Function
D0	Switching state
D1	not used
D2	Oscillator monitoring
D3	not used

Parameter bit

Bit	Function
P0	ON / Off delay activated* / deactivated
P1	Switching element function NO* / NC
P2	not used
P3	not used

*Standard setting

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