



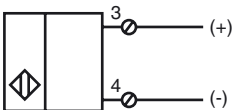
Model Number

NBB20+U1+B3B

Features

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

Connection



Accessories

V1-M20-80

Receptacles, M12/M20; plastic version

V1-G

4-pin, M12 female field-attachable connector

V1-W

4-pin, M12 female field-attachable connector

MHW 01

Modular mounting bracket

V1-W-2M-PUR

Cable socket, M12, 4-pin, PUR cable

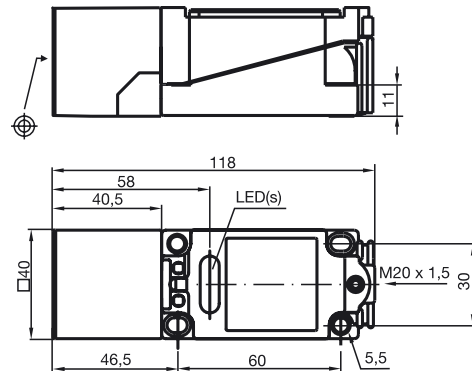
V1-G-2M-PUR

Cable socket, M12, 4-pin, PUR cable

VAZ-RK-PUR 2x1,5-YE 100M

AS-Interface round cable

Dimensions



Technical Data

General specifications

Switching element function		NO/NC programmable
Rated operating distance	s_n	20 mm
Installation		flush
Output polarity		AS-Interface
Assured operating distance	s_a	0 ... 16.2 mm
Reduction factor r_{AI}		0.4
Reduction factor r_{Cu}		0.35
Reduction factor r_{304}		0.85

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 protected		reverse polarity protected
Operating voltage display		LED, green
Indication of the switching state		LED, yellow
Fault indication		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	$\leq 2.5 \text{ mm}^2$
Housing material	PBT
Sensing face	PBT
Protection degree	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	Products with a maximum operating voltage of $\leq 36 \text{ V}$ do not bear a CCC marking because they do not require approval.

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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