



CE



Model Number

NBB20+U1+B3

Features

- NO/NC programmable
- Adjustable sensor head
- Oscillator monitoring
- 20 mm flush
- On/Off delay (disconnectable)
- Basic series

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

V1-G-2M-PUR

Female cordset, M12, 4-pin, PUR cable

MHW 01

Modular mounting bracket

V1-W-2M-PUR

Female cordset, M12, 4-pin, PUR 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_{AI}		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)

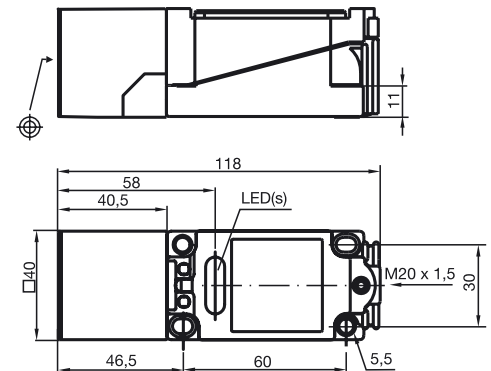
Mechanical specifications

Connection type		screw terminals
Core cross-section		up to 2.5 mm ²
Housing material		PBT
Sensing face		PBT
Degree of protection		IP68

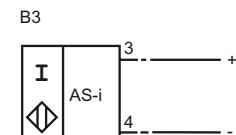
Compliance with standards and directives

Standard conformity		
Standards		EN 60947-5-2:2007 IEC 60947-5-2:2007

Dimensions



Electrical Connection



Programming Instructions

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

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