



### Model Number

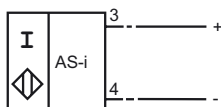
NBB20+U1+B3

### Features

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

### Connection

B3



### 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

#### V1-G-2M-PUR

Cable socket, M12, 4-pin, PUR cable

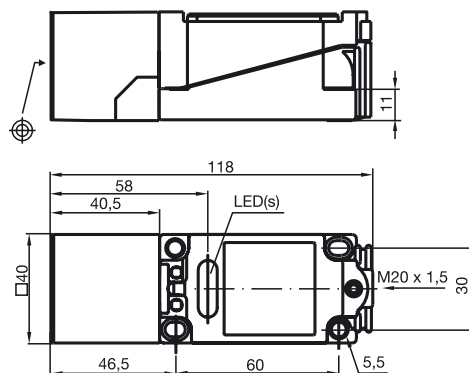
#### MHW 01

Modular mounting bracket

#### V1-W-2M-PUR

Cable socket, M12, 4-pin, PUR 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	up to 2.5 mm <sup>2</sup>
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



**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

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