



# Ultrasonic sensor, transmitter

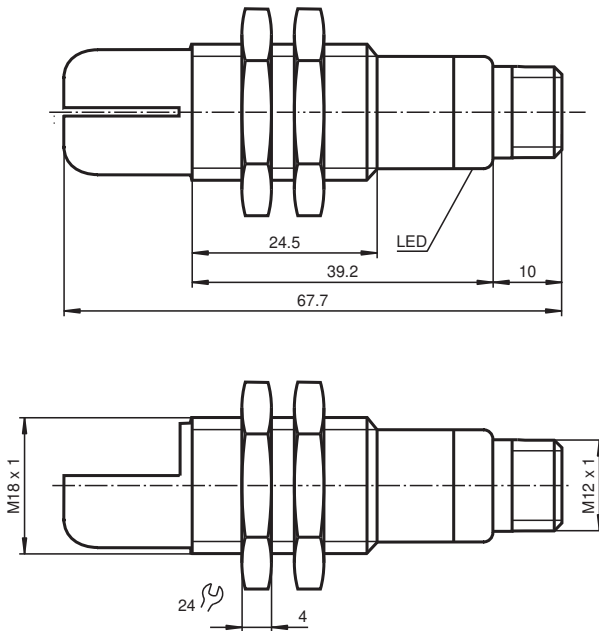
## UBE500-18GM40A-V1-Y220367

- Short design, 40 mm
- Function indicators visible from all directions
- Test input
- Stainless steel housing

Single head system



### Dimensions



### Technical Data

#### General specifications

Sensing range	100 ... 500 mm
Standard target plate	100 mm x 100 mm
Transducer frequency	approx. 390 kHz

#### Indicators/operating means

LED green	Power on
LED red	Emitter deactivated

#### Electrical specifications

Operating voltage	$U_B$	10 ... 30 V DC , ripple 10 % <sub>SS</sub>
No-load supply current	$I_0$	≤ 20 mA

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

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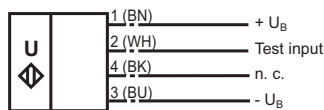
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## Technical Data

<b>Input</b>	
Input type	1 Test input emitter deactivated: +6 V ... +U <sub>B</sub> input impedance: > 4.7 kΩ
<b>Compliance with standards and directives</b>	
Standard conformity	
Standards	EN IEC 60947-5-2:2020 IEC 60947-5-2:2019
<b>Approvals and certificates</b>	
UL approval	cULus Listed, Class 2 Power Source
CCC approval	CCC approval / marking not required for products rated ≤36 V
<b>Ambient conditions</b>	
Ambient temperature	-25 ... 70 °C (-13 ... 158 °F)
Storage temperature	-40 ... 85 °C (-40 ... 185 °F)
<b>Mechanical specifications</b>	
Connection type	Connector plug M12 x 1 , 4-pin
Housing diameter	18 mm
Degree of protection	IP67
<b>Material</b>	
Housing	stainless steel V4A
Transducer	epoxy resin/hollow glass sphere mixture; foam polyurethane, cover PBT
Mass	25 g

## Connection

Standard symbol/Connections:  
(Emitter)



Core colours in accordance with EN 60947-5-2.

## Connection Assignment

### Connector V1








## Accessories

	<b>CPZ18B03</b>	Mounting Bracket with swivel nut
	<b>OMH-04</b>	Mounting aid for round steel ø 12 mm or sheet 1.5 mm ... 3 mm
	<b>BF 18</b>	Mounting flange, 18 mm
	<b>BF 18-F</b>	Plastic mounting adapter, 18 mm

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**Accessories**

	<b>BF 5-30</b>	Universal mounting bracket for cylindrical sensors with a diameter of 5 ... 30 mm
	<b>V1-G-2M-PVC</b>	Female cordset single-ended M12 straight A-coded, 4-pin, PVC cable grey
	<b>V1-W-2M-PUR</b>	Female cordset single-ended M12 angled A-coded, 4-pin, PUR cable grey
	<b>UVW90-K18</b>	Ultrasonic -deflector
	<b>M18K-VE</b>	Plastic nuts with centering ring for the vibration-free mounting of cylindrical sensors

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## Function

### Function

A through-beam ultrasonic barrier always consists of a single emitter and a single receiver. The function of a through-beam ultrasonic barrier is based in the interruption of the sound transmission to the receiver by the object to be detected.

The emitter sends an ultrasonic signal that is evaluated by the receiver. If the signal is interrupted or muted by the object to be detected, the receiver switches.

No electrical connections are required between the emitter and receiver.

The function of through-beam ultrasonic barriers is not dependent on the position of their installation. We recommend, however, to install the emitter below in the case of vertical installations to prevent the accumulation of dust particles.

### Test function

For test purpose, the ultrasonic emitter is equipped with a test input. In normal operation mode (test input not connected or connected to  $-U_B$ ), the green LED of the emitter is on. If the test input is connected to  $+U_B$ , the ultrasonic emitter gets deactivated and its LED changes into red. Simultaneously the receiver switches and its yellow LED goes on.