



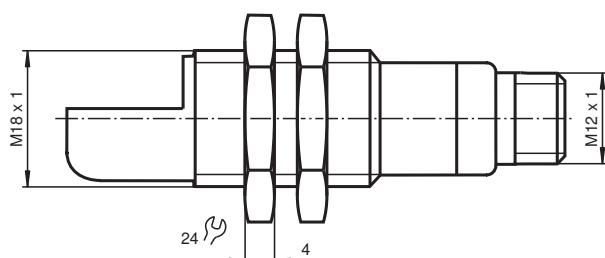
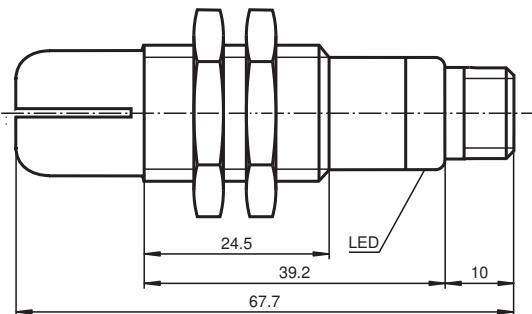
Ultrasonic sensor, transmitter UBE500-18GM40A-V1-Y220367

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

Single head system



Dimensions



Technical Data

Release date: 2023-02-15 Date of issue: 2023-02-15 Filename: 220367_eng.pdf

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 % _{SS}
No-load supply current	I_0	≤ 20 mA

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

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Technical Data

Input

Input type	1 Test input emitter deactivated: +6 V ... +U _B input impedance: > 4.7 kΩ
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Compliance with standards and directives

Standard conformity	
Standards	EN IEC 60947-5-2:2020 IEC 60947-5-2:2019

Approvals and certificates

UL approval	cULus Listed, Class 2 Power Source
CCC approval	CCC approval / marking not required for products rated ≤36 V

Ambient conditions

Ambient temperature	-25 ... 70 °C (-13 ... 158 °F)
Storage temperature	-40 ... 85 °C (-40 ... 185 °F)

Mechanical specifications

Connection type	Connector plug M12 x 1 , 4-pin
Housing diameter	18 mm
Degree of protection	IP67
Material	
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



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Accessories

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

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Accessories

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

Function

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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.