Through-beam ultrasonic barrier UBE500-F64-SE0-V3



Features

- Reliable detection of transparent materials
- High switching frequency
- Small angle of divergence
- · Small, compact design
- · Plastic housing
- · Emitter and receiver included in the delivery package





CE

Technical data

Dimensions

General specifications Sensing range Transducer frequency Reference target Indicators/operating means LED yellow Electrical specifications Operating voltage No-load supply current I0

Output

Output type Rated operational current le . Voltage drop U_d Switching frequency f Switch-on delay t_{on} Standard conformity Standards Ambient conditions Ambient temperature Storage temperature Mechanical specifications Protection degree Connection Material Housing Mass

0 ... 500 mm , distance emitter-receiver 15 mm ... 500 mm 200 kHz receiver

indication of the switching state (receiver)

18 ... 30 V DC , ripple 10 %_{SS} 20 mA receiver 12 mA emitter

1 switch output E0, npn NO 50 mA ≤ 0,5 V 100 Hz < 5 ms

EN 60947-5-2

0 ... 60 °C (273 ... 333 K) -40 ... 85 °C (233 ... 358 K)

IP54 V3 connector (M8 x 1), 3 pin

PA 6.6 80 g per device

Electrical connection

Standard symbol/Connection:









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

Connector V3



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Subject to reasonable modifications due to technical advances

Printed in Germany

Notes

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.

Installation tolerances

The installation tolerances of the central axes of the emitter and receiver may not exceed the values specified in the illustration.

Detection of thin foils

For the detection of thin foils (< 0.1 mm), install the through-beam ultrasonic barrier at an angle of $\geq 10^{\circ}$ from perpendicular to the foil.

Caution

Mount or replace emitter and receiver only in pairs. Both devices are optimally matched to each other by the manufacturer.

Accessories

Mating connectors

V3-GM-5M-PUR V3-WM-2M-PUR

For further information refer to chapter "Accessories".

Model number

UBE500-F64-SE0-V3

Characteristic curves/additional information

Characteristic response curves



Mounting/Adjustment



Parallel displacement Angle displacement $A \le 8 mm$

 $\alpha \leq 5^{\circ}$

Thin foil detection



Internet http://www.sensotronik.se