

Single path barrier UBE500-F64-SE2-V3



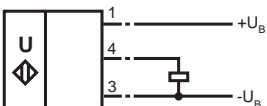
Features

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

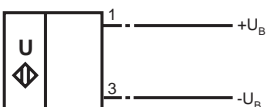
Electrical connection

Standard symbol/Connection:

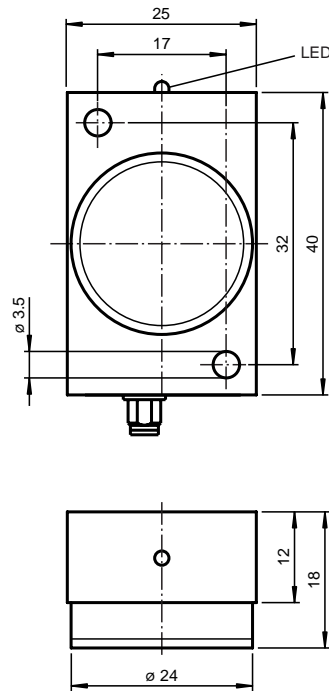
Receiver:



Emitter:



Dimensions



Technical data

General specifications

Sensing range	0 ... 500 mm, distance emitter-receiver 15 mm ... 500 mm
Reference target	Receiver
Transducer frequency	200 kHz
Standard conformity	EN 60947-5-2

Indicating/Operating means

LED yellow

switching state switch output

Electrical specifications

Rated operational voltage U_e	10 ... 30 V DC, ripple 10 % _{SS}
No-load supply current I_0	20 mA Receiver 12 mA emitter

Output

Output type	1 switch output E2, pnp NO
Rated operational current I_e	200 mA
Voltage drop U_d	≤ 2 V
Switching frequency f	100 Hz
Switch-on delay t_{on}	< 5 ms

Ambient conditions

Ambient temperature	0 ... +60 °C (273 ... 333 K)
Storage temperature	-40 ... +85 °C (233 ... 358 K)

Mechanical specifications

Protection degree	IP54
Connection type	V3 connector (M8 x 1), 3 pin
Material	
Housing	PA 6.6
Mass	80 g each sensor

Note

Function

A through-beam ultrasonic barrier always consists of a single transmitter 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 transmitter 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 transmitter and receiver. The function of through-beam ultrasonic barriers is not dependent on the position of their installation. We recommend, however, to install the transmitter 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 transmitter and receiver may not exceed the values specified in the illustration.

Detection of thin foils

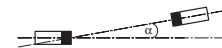
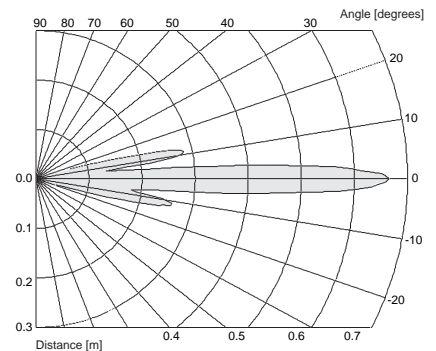
For the detection of thin foils ($< 0.1 \text{ mm}$), install the through-beam ultrasonic barrier at an angle of $\geq 10^\circ$ from perpendicular to the foil.

Model number

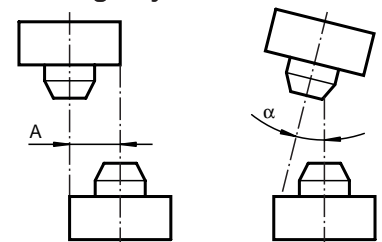
UBE500-F64-SE2-V3

Characteristic curves/ Additional information

Characteristic response curves



Mounting/Adjustment



Parallel displacement
 $A \leq 8 \text{ mm}$

Angle displacement
 $\alpha \leq 5^\circ$

