



### Model Number

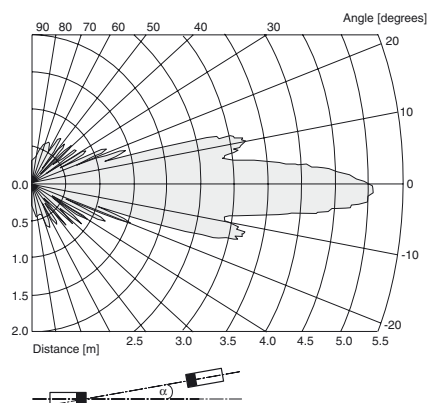
UBE4000-30GM-SA2-V15-Y120345

### Features

- Reliable detection of transparent materials
- High switching frequency
- Small angle of divergence
- Protective functions
- Emitter and receiver included in the delivery package
- Adjustable acoustic power
- Adjustable switch-on delay
- Switch-off delay 100 ms

### Diagrams

#### Characteristic response curves



### Technical data

#### General specifications

Sensing range	0 ... 4000 mm , distance emitter-receiver 500 mm ... 4000 mm
Reference target	receiver
Transducer frequency	85 kHz

#### Indicators/operating means

LED green	alignment aid OFF: no ultrasonic signal flashing: uncertain area ON: positive reception
LED yellow	switching state

#### Electrical specifications

Operating voltage $U_B$	18 ... 30 V DC , ripple 10 % <sub>SS</sub>
No-load supply current $I_0$	35 mA emitter 25 mA receiver

#### Output

Output type	2 switch outputs PNP, normally open/closed (complementary)
Rated operating current $I_e$	200 mA
Voltage drop $U_d$	≤ 2.5 V
Switch-on delay $t_{on}$	30 ... 3000 ms
Switch-off delay $t_{off}$	100 ms
Switching frequency $f$	≤ 15 Hz

#### Standard conformity

Standards	EN 60947-5-2
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#### Ambient conditions

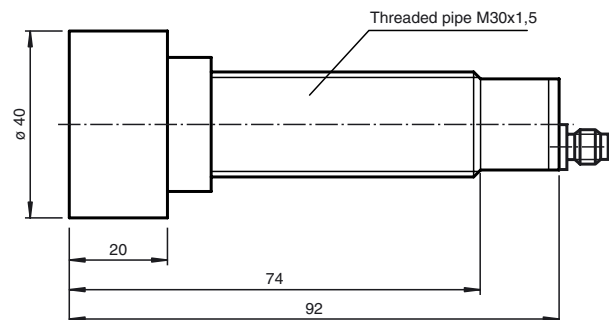
Ambient temperature	0 ... 60 °C (32 ... 140 °F)
Storage temperature	-40 ... 85 °C (-40 ... 185 °F)

#### Mechanical specifications

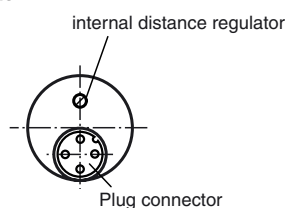
Connection type	Device connector M12 x 1 , 5-pin
Protection degree	IP65
Material	
Housing	nickel plated brass; plastic components: PBT
Mass	190 g each sensor

### Dimensions

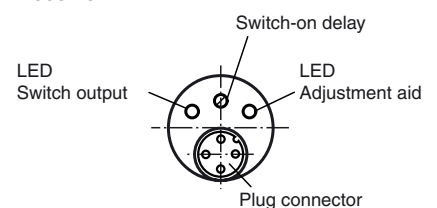
#### Dimensions:



#### Emitter:



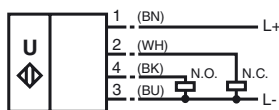
#### Receiver:



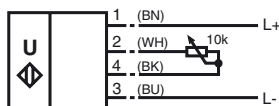
**Electrical Connection**

Standard symbol/Connection:  
(version A2, pnp)

Receiver:



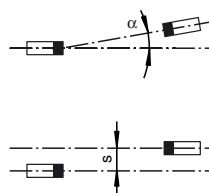
Emitter:



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

**Additional Information**

**Alignment**



**Pinout**

**Connector V1**



**Notes**

**Remote potentiometer**

The distance range of the through-beam ultrasonic barrier can be adjusted with the potentiometer integrated in the transmitter, or via a remote potentiometer connected to the transmitter.

The remote potentiometer simplifies the adjustment of the distance range if the sensors are installed in an inaccessible location. A 10 kΩ/0.3 W potentiometer serves as the remote potentiometer. The connection is realised using the plug connector pins 2 and 4 of the transmitter (see: Electrical Connection).

The following distance ranges can be set using the remote potentiometer:

Adjustment of the internal distance regulator	Distance range adjustable via remote potentiometer
Minimum switching point	0 m ... 2 m
Maximum switching point	0 m ... 4 m

When operating without a remote potentiometer, the plug connector pins 2 and 4 must be bridged.

**Alignment:**

When adjusting the transmitter and receiver, take care to align them as precisely as possible.

Angular tolerance:  $\alpha < +/- 2^\circ$   
Maximum offset:  $s < +/- 5 \text{ mm}$

A through-beam ultrasonic barrier consists of a single transmitter and a single receiver.

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