Sensor adjustment with Teach-in procedure

- Set window margins
- Place object at position 0
- Press push-button for about 3 s until LEDs flash simultaneously
- Place object at position 0
- Press push-button for about 1 s
- Set rising/falling output characteristic curve
- Press button for about 13 s until LEDs flash mutually
- To change output characteristic press push-button for about 1 s
- Wait for 10 s

Normal operating mode

- Set analogue output
- Enable/disable Teach-in push-button
- Switch off power supply
- While pressing the push-button switch on power supply
- Keep push-button pressed for about 3 s until both LEDs flash simultaneously
- Keep push-button pressed for about 1.5 s until both LEDs stop flashing
- To enable/disable Teach-in press push-button for about 1 s
- Wait for 10 s
- Release push-button within 5 s

Further settings

- Reset to factory setting
- Switch off power supply
- While pressing the push-button switch on power supply
- Keep push-button pressed for about 1.5 s until both LEDs stop flashing
- To enable/disable Teach-in press push-button for about 1 s
- Wait for 10 s
- Release push-button within 5 s

Notes
- Every time the power supply is switched on, the sensor detects its actual operating temperature and transmits it to the internal temperature compensation. This results in a slight correction of the analogue output value after 45 seconds.
The dark grey areas are determined with a thin round bar (10 mm dia.) and indicate the typical operating range of a sensor. In order to obtain the light grey areas, a plate (100 x 100 mm) is introduced into the beam spread from the side. In doing so, the optimum angle between plate and sensor is always employed; this therefore indicates the maximum detection zone of the sensor. It is not possible to evaluate ultrasonic reflections outside this area.

**Technical data**

**Operating data**

- **Blind zone**: 20 mm
- **Operating range**: 150 mm
- **Maximum range**: 250 mm
- **Angle of beam spread**: 180°
- **Transducer frequency**: 510 kHz
- **Resolution, sampling rate**: 10 mm
- **Reproducibility**: ± 0.15 %
- **Detection zones for different objects**: The dark grey areas are determined with a thin round bar (10 mm dia.) and indicate the typical operating range of a sensor. In order to obtain the light grey areas, a plate (100 x 100 mm) is introduced into the beam spread from the side. In doing so, the optimum angle between plate and sensor is always employed; this therefore indicates the maximum detection zone of the sensor. It is not possible to evaluate ultrasonic reflections outside this area.

**Accuracy**

± 0.1 % (temperature drift internally compensated)

**Operating voltage**

15 - 30 V DC, reverse polarity protection

**No-load current consumption**

≤ 25 mA

**Housing**

ABS

**Class of protection to EN 60 529**

IP 67

**Type of connection**

4-pin M8 initiator plug

**Indicators**

LED green (operation)

**Synchronisation**

yes, via external clock generator

**Pulse width synchronisation signal**

> 150 μs

**Repetition rate synchronisation signal**

18 ms < t_p < 1 s

**Operating temperature**

± 25°C to ± 70°C

**Storage temperature**

-40°C to +85°C

**Weight**

≤ 0.2 kg

**Response time**

≤ 24 ms

**Time delay before availability**

≤ 300 ms

**Specifications in this document are presented in a descriptive way only. They do not warrant any product features.**

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For more details, please refer to the product manual or contact Microsonic GmbH for further assistance.