



# SMALL SENSORS FOR TIGHT SPACES

## ULTRA-SMALL PHOTOELECTRIC SENSORS



### R2 SERIES





## Technical data

### TECHNICAL DATA

<b>Effective detection range</b>	Retroreflective sensor Thru-beam sensor	1000 mm 2 m / 200 mm
<b>Detection range</b>	Background suppression sensor Background evaluation sensor	15 mm, 20 mm, 30 mm, 40 mm, 50 mm, 80 mm 15 mm, 30 mm, 50 mm
<b>Light source</b>	Visible red light, 630 nm	
<b>Angle of divergence</b>	± 2°	
<b>Operating voltage</b>	10 VDC ... 30 VDC	
<b>No-load current</b>	< 10 mA	
<b>Switching type</b>	Normally open / normally closed	
<b>Switching output</b>	NPN, PNP	
<b>Switching frequency</b>	800 Hz	
<b>Response time</b>	600 µs	
<b>Operating temperature</b>	-13 °F ... 140 °F (-25 °C ... 60 °C)	
<b>Protection degree</b>	IP67	
<b>Connection</b>	PUR 2 m fixed cable or pigtail, 4-pin, M8 with 200 mm cable	
<b>Dimensions (mm)</b>	24 mm x 7.5 mm x 11.2 mm	
<b>Approvals</b>	 	

### TYPES

#### ■ OBE2000-R2 – Thru-beam sensor

With advanced Teach-in capabilities, a selectable emitter LED, and best-in-class sensing performance, R2 Series thru-beam sensors are an all-in-one solution for a wide array of applications.

#### ■ OBR1000-R2 – Polarized retroreflective sensor

R2 Series retroreflective sensors offer long-distance sensing and exceptional reliability, regardless of object color, texture, or shape and without the added expense of a thru-beam sensor.

#### ■ OBTxx-R2 – Background suppression sensor

R2 Series background suppression sensors detect object presence with precise control, superior color independence and high repeatability while ignoring objects in the background.

#### ■ OBTxx-R2-xx-1T – Background evaluation sensor

Utilizing a fixed background (e.g., conveyor, machine part) as a reference, R2 Series background evaluation sensors are a unique alternative to retroreflective sensors, reliably detecting objects regardless of color, texture, or shape and without the need for a reflector.

### Sensing Ranges by Type



Background Evaluation — 15 mm, 30 mm, 50 mm

Background Suppression — 15 mm, 20 mm, 30 mm, 40 mm, 50 mm, 80 mm

Polarized Retroreflective — 1000 mm

Thru-beam — 200 mm (high precision)      2000 mm (high power)

### ACCESSORIES

#### Mounting Brackets



MH-R2-01



MH-R2-02



MH-R2-03



MH-R2-04

#### Reflectors



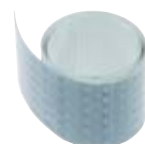
REF-H40



REF-H23



REF-MA21



RT1 X 2

#### Cordsets



V31-GM-BK2M-PUR-U



V31-WM-BK2M-PUR-U

# YOUR APPLICATION. OUR CHALLENGE.

## PROCESS INTERFACES

- Intrinsic Safety Barriers
- Signal Conditioners
- FieldConnex Fieldbus Infrastructure
- Remote I/O Systems
- HART Interface Solutions
- Level Measurement
- Purge+Pressurization Systems
- Industrial Monitors+HMI Solutions
- Explosion Protection Equipment
- Solutions for Process Interfaces
- Wireless Solutions

## INDUSTRIAL SENSORS

- Proximity Sensors
- Photoelectric Sensors
- Industrial Vision
- Ultrasonic Sensors
- Rotary Encoders
- Positioning Systems
- Inclination and Acceleration Sensors
- AS-Interface
- Identification Systems
- Logic Control Units
- Cordsets



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