Photoelectric Distance Sensors
Intelligent Functionality for Incredible Precision

Extensive knowledge of engineering enables Pepperl+Fuchs to produce distance-based photoelectric sensors that use the innovative PRT (Pulse Ranging Technology) and MPT (Multi Pixel Technology) measuring principles. This integrated intelligence ensures the highest levels of precision and safety during object detection.

2-D LiDAR Sensors

The R2000 series 2-D laser scanners with 360° measuring angle achieve maximum power in the most compact housing design. The R2100 multi-ray LED scanner guarantees maximum robustness and cost efficiency. The optimized portfolio of 2-D LiDAR sensors from Pepperl+Fuchs thus offers solutions from basic to high-end applications.

Typical Applications
- Navigation of driverless transport systems
- Profile detection in robotics applications
- Collision avoidance in automated storage and retrieval systems or suspended conveyor systems
- Detection of overhangs, e.g., for pallets
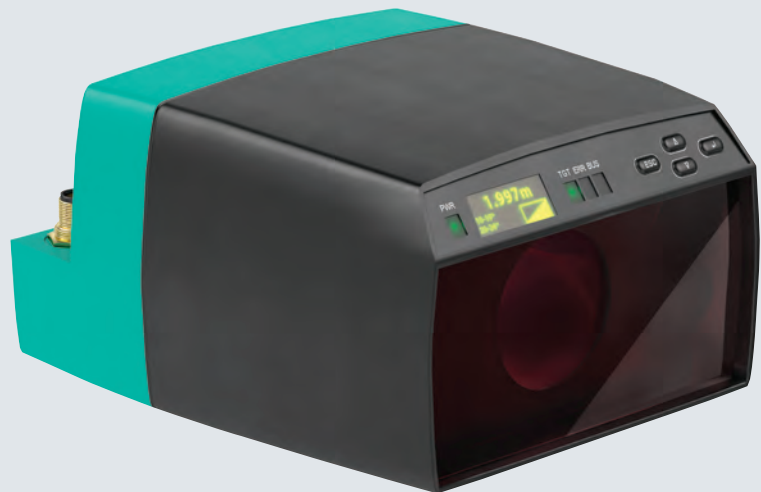- Highly precise monitoring of large areas

The Benefits of Selected 2-D LiDAR Sensors at a Glance

R2000 UHD 2-D laser scanner:
- Small light spot for detecting the smallest of objects and precise edge detection
- All-round visibility thanks to 360° measuring angle and up to 100 m detection range
- Optimized for quick measurement applications with a high scan rate of 100 Hz
- Highest angular resolution of 0.014° for highly precise navigation and positioning tasks

R2100 multi-ray LED scanner:
- LED measurement guarantees a long service life
- Ideal for mechanically demanding applications as there are no moving parts in the sensor
- 2-D measurement over 11 individual beams
- Large light spots tolerate different surface structures

Pulse Ranging Technology (PRT) for Medium to Very Long Ranges

Equipped with the innovative Pulse ranging Technology (PRT), the distance sensors from Pepperl+Fuchs detect objects at distances from a few centimeters to several hundred meters with millimeter precision. Thanks to intelligent sensor electronics, PRT allows highly accurate, reliable, and clear measurements with high repeatability and fast response times, even with difficult environmental conditions and object properties. The VDM28 series offers stable production processes thanks to high immunity and resistance to environmental influences. It offers a wide range of applications thanks to the availability of switching and measuring sensors, including with IO-Link. The VDM100 distance measurement devices offer increased productivity with ultra-fast, continuous measurement and high reliability with a measuring range of up to 300 m and an accuracy of 0.5 mm.

Typical Applications
- Positioning of automated storage and retrieval systems, portal cranes, or moving carriages
- Level measurement
- Compartment occupied check in high-bay warehouses
- Stack height control
- Thickness measurement of coils

Multi Pixel Technology (MPT) for Near-Range Applications

Multi Pixel Technology from Pepperl+Fuchs uses the proven triangulation principle for the precise measurement of distances to shorter distances. Target objects are clearly distinguished from the background, while adjustable operating modes allow interfering objects in the foreground or background to be reliably suppressed. No other technology provides greater reliability in object detection at short distances.

The R10x and R20x series offer an end-to-end solution of photoelectric functional principles and innovative technologies in an identical housing. Equipped with IO-Link, the series meet all the requirements of Sensorik4.0.

Typical Applications
- Well suited for simple and complex applications
- Detection of objects with changing object surface and structure
- Evaluation of multiple switching thresholds or switching windows
- Suitable for applications in highly fluctuating ambient conditions

Distance Sensors
Contents

R100 Series

Standard Technical Data	
Function principle	Distance sensor
Interface	IO-Link
Operating elements	Potentiometer, push-button
Voltage type	DC
Operating voltage (min)	10 V
Operating voltage (max)	30 V
Housing length L	21.5 mm
Housing width W	11 mm
Housing height H	44.5 mm
UL	■

For detailed data and description, see the datasheet. Further products can be found online at www.pepperl-fuchs.com.

Model number	Detection range [mm]	Light type	Output type	Connection type
OMT50-R100-2EP-IO	50	Red LED	2 x push-pull	Fixed cable
OMT50-R100-2EP-IO-0,3M-V1	50	Red LED	2 x push-pull	Fixed cable with M12 plug
OMT50-R100-2EP-IO-0,3M-V1-L	50	Red laser diode	2 x push-pull	Fixed cable with M12 plug
OMT50-R100-2EP-IO-0,3M-V31	50	Red LED	2 x push-pull	Fixed cable with M8 plug
OMT50-R100-2EP-IO-0,3M-V31-L	50	Red laser diode	2 x push-pull	Fixed cable with M8 plug
OMT50-R100-2EP-IO-L	50	Red laser diode	2 x push-pull	Fixed cable
OMT50-R100-2EP-IO-V31	50	Red LED	2 x push-pull	M8 connector plug
OMT50-R100-2EP-IO-V31-L	50	Red laser diode	2 x push-pull	M8 connector plug
OMT50-R100-EP-IO-0,3M-V3	50	Red LED	1 x push-pull	Fixed cable with M8 plug
OMT50-R100-EP-IO-0,3M-V3-L	50	Red laser diode	1 x push-pull	Fixed cable with M8 plug
OMT50-R100-EP-IO-V3	50	Red LED	1 x push-pull	M8 connector plug
OMT50-R100-EP-IO-V3-L	50	Red laser diode	1 x push-pull	M8 connector plug
OMT100-R100-2EP-IO	100	Red LED	2 x push-pull	Fixed cable
OMT100-R100-2EP-IO-0,3M-V1	100	Red LED	2 x push-pull	Fixed cable with M12 plug
OMT100-R100-2EP-IO-0,3M-V1-L	100	Red laser diode	2 x push-pull	Fixed cable with M12 plug
OMT100-R100-2EP-IO-0,3M-V31	100	Red LED	2 x push-pull	Fixed cable with M8 plug
OMT100-R100-2EP-IO-0,3M-V31-L	100	Red laser diode	2 x push-pull	Fixed cable with M8 plug
OMT100-R100-2EP-IO-L	100	Red laser diode	2 x push-pull	Fixed cable
OMT100-R100-2EP-IO-V31	100	Red LED	2 x push-pull	M8 connector plug
OMT100-R100-2EP-IO-V31-L	100	Red laser diode	2 x push-pull	M8 connector plug
OMT100-R100-EP-IO-0,3M-V3	100	Red LED	1 x push-pull	Fixed cable with M8 plug
OMT100-R100-EP-IO-0,3M-V3-L	100	Red laser diode	1 x push-pull	Fixed cable with M8 plug
OMT100-R100-EP-IO-V3	100	Red LED	1 x push-pull	M8 connector plug
OMT100-R100-EP-IO-V3-L	100	Red laser diode	1 x push-pull	M8 connector plug
OMT150-R100-2EP-IO-0,3M-V1-L	150	Red laser diode	2 x push-pull	Fixed cable with M12 plug
OMT150-R100-2EP-IO-0,3M-V31-L	150	Red laser diode	2 x push-pull	Fixed cable with M8 plug
OMT150-R100-2EP-IO-L	150	Red laser diode	2 x push-pull	Fixed cable
OMT150-R100-2EP-IO-V31-L	150	Red laser diode	2 x push-pull	M8 connector plug
OMT150-R100-EP-IO-0,3M-V3-L	150	Red laser diode	1 x push-pull	Fixed cable with M8 plug
OMT150-R100-EP-IO-V3-L	150	Red laser diode	1 x push-pull	M8 connector plug
OMT200-R100-2EP-IO	200	Red LED	2 x push-pull	Fixed cable
OMT200-R100-2EP-IO-0,3M-V1	200	Red LED	2 x push-pull	Fixed cable with M12 plug
OMT200-R100-2EP-IO-0,3M-V31	200	Red LED	2 x push-pull	Fixed cable with M8 plug
OMT200-R100-2EP-IO-V31	200	Red LED	2 x push-pull	M8 connector plug
OMT200-R100-EP-IO-0,3M-V3	200	Red LED	1 x push-pull	Fixed cable with M8 plug
OMT200-R100-EP-IO-V3	200	Red LED	1 x push-pull	M8 connector plug

R101 Series

Standard Technical Data	
Function principle	Distance sensor
Interface	IO-Link
Operating elements	Potentiometer, push-button
Voltage type	DC
Operating voltage (min)	10 V
Operating voltage (max)	30 V
Housing length L	18.3 mm
Housing width W	13.9 mm
Housing height H	41.4 mm
UL	■

For detailed data and description, see the datasheet. Further products can be found online at www.pepperl-fuchs.com.

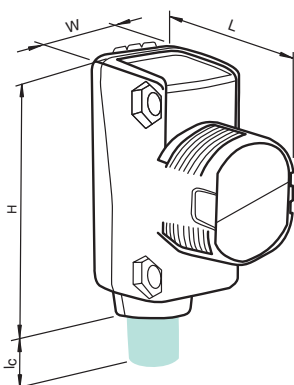| Model number	Detection range [mm]	Light type	Output type	Connection type
OMT50-R101-2EP-IO	50	Red LED	2 x push-pull	Fixed cable
OMT50-R101-2EP-IO-0,3M-V1	50	Red LED	2 x push-pull	Fixed cable with M12 plug
OMT50-R101-2EP-IO-0,3M-V1-L	50	Red laser diode	2 x push-pull	Fixed cable with M12 plug
OMT50-R101-2EP-IO-0,3M-V31	50	Red LED	2 x push-pull	Fixed cable with M8 plug
OMT50-R101-2EP-IO-0,3M-V31-L	50	Red laser diode	2 x push-pull	Fixed cable with M8 plug
OMT50-R101-2EP-IO-L	50	Red laser diode	2 x push-pull	Fixed cable
OMT50-R101-2EP-IO-V31	50	Red LED	2 x push-pull	M8 connector plug
OMT50-R101-2EP-IO-V31-L	50	Red laser diode	2 x push-pull	M8 connector plug
OMT50-R101-EP-IO-0,3M-V3	50	Red LED	1 x push-pull	Fixed cable with M8 plug
OMT50-R101-EP-IO-0,3M-V3-L	50	Red laser diode	1 x push-pull	Fixed cable with M8 plug
OMT50-R101-EP-IO-V3	50	Red LED	1 x push-pull	M8 connector plug
OMT50-R101-EP-IO-V3-L	50	Red laser diode	1 x push-pull	M8 connector plug
OMT100-R101-2EP-IO	100	Red LED	2 x push-pull	Fixed cable
OMT100-R101-2EP-IO-0,3M-V1	100	Red LED	2 x push-pull	Fixed cable with M12 plug
OMT100-R101-2EP-IO-0,3M-V1-L	100	Red laser diode	2 x push-pull	Fixed cable with M12 plug
OMT100-R101-2EP-IO-0,3M-V31	100	Red LED	2 x push-pull	Fixed cable with M8 plug
OMT100-R101-2EP-IO-0,3M-V31-L	100	Red laser diode	2 x push-pull	Fixed cable with M8 plug
OMT100-R101-2EP-IO-L	100	Red laser diode	2 x push-pull	Fixed cable
OMT100-R101-2EP-IO-V31	100	Red LED	2 x push-pull	M8 connector plug
OMT100-R101-2EP-IO-V31-L	100	Red laser diode	2 x push-pull	M8 connector plug
OMT100-R101-EP-IO-0,3M-V3	100	Red LED	1 x push-pull	Fixed cable with M8 plug
OMT100-R101-EP-IO-0,3M-V3-L	100	Red laser diode	1 x push-pull	Fixed cable with M8 plug
OMT100-R101-EP-IO-V3	100	Red LED	1 x push-pull	M8 connector plug
OMT100-R101-EP-IO-V3-L	100	Red laser diode	1 x push-pull	M8 connector plug
OMT150-R101-2EP-IO-0,3M-V1-L	150	Red laser diode	2 x push-pull	Fixed cable with M12 plug
OMT150-R101-2EP-IO-0,3M-V31-L	150	Red laser diode	2 x push-pull	Fixed cable with M8 plug
OMT150-R101-2EP-IO-L	150	Red laser diode	2 x push-pull	Fixed cable
OMT150-R101-2EP-IO-V31-L	150	Red laser diode	2 x push-pull	M8 connector plug
OMT150-R101-EP-IO-0,3M-V3-L	150	Red laser diode	1 x push-pull	Fixed cable with M8 plug
OMT150-R101-EP-IO-V3-L	150	Red laser diode	1 x push-pull	M8 connector plug
OMT200-R101-2EP-IO	200	Red LED	2 x push-pull	Fixed cable
OMT200-R101-2EP-IO-0,3M-V1	200	Red LED	2 x push-pull	Fixed cable with M12 plug
OMT200-R101-2EP-IO-0,3M-V31	200	Red LED	2 x push-pull	Fixed cable with M8 plug
OMT200-R101-2EP-IO-V31	200	Red LED	2 x push-pull	M8 connector plug
OMT200-R101-EP-IO-0,3M-V3	200	Red LED	1 x push-pull	Fixed cable with M8 plug
OMT200-R101-EP-IO-V3	200	Red LED	1 x push-pull	M8 connector plug

R103 Series

Standard Technical Data	
Function principle	Distance sensor
Interface	IO-Link
Operating elements	Potentiometer, push-button
Voltage type	DC
Operating voltage (min)	10 V
Operating voltage (max)	30 V
Housing length L	26.7 mm
Housing width W	15 mm
UL	■

For detailed data and description, see the datasheet. Further products can be found online at www.pepperl-fuchs.com.

Model number	Detection range [mm]	Light type	Output type	Connection type	Height H
OMT45-R103-EP-IO-V3-L	45	Red laser diode	1 x push-pull	M8 connector plug	43.9
OMT45-R103-2EP-IO	45	Red LED	2 x push-pull	Fixed cable	36.5
OMT45-R103-2EP-IO-0,3M-V1	45	Red LED	2 x push-pull	Fixed cable with M12 plug	36.5
OMT45-R103-2EP-IO-0,3M-V1-L	45	Red laser diode	2 x push-pull	Fixed cable with M12 plug	36.5
OMT45-R103-2EP-IO-0,3M-V31	45	Red LED	2 x push-pull	Fixed cable with M8 plug	36.5
OMT45-R103-2EP-IO-0,3M-V31-L	45	Red laser diode	2 x push-pull	Fixed cable with M8 plug	36.5
OMT45-R103-2EP-IO-L	45	Red laser diode	2 x push-pull	Fixed cable	36.5
OMT45-R103-2EP-IO-V31	45	Red LED	2 x push-pull	M8 connector plug	43.9
OMT45-R103-2EP-IO-V31-L	45	Red laser diode	2 x push-pull	M8 connector plug	43.9
OMT45-R103-EP-IO-0,3M-V3	45	Red LED	1 x push-pull	Fixed cable with M8 plug	36.5
OMT45-R103-EP-IO-0,3M-V3-L	45	Red laser diode	1 x push-pull	Fixed cable with M8 plug	36.5
OMT45-R103-EP-IO-V3	45	Red LED	1 x push-pull	M8 connector plug	43.9
OMT100-R103-2EP-IO	100	Red LED	2 x push-pull	Fixed cable	36.5
OMT100-R103-2EP-IO-0,3M-V1	100	Red LED	2 x push-pull	Fixed cable with M12 plug	36.5
OMT100-R103-2EP-IO-0,3M-V31	100	Red LED	2 x push-pull	Fixed cable with M8 plug	36.5
OMT100-R103-2EP-IO-V31	100	Red LED	2 x push-pull	M8 connector plug	43.9
OMT100-R103-EP-IO-0,3M-V3	100	Red LED	1 x push-pull	Fixed cable with M8 plug	36.5
OMT100-R103-EP-IO-V3	100	Red LED	1 x push-pull	M8 connector plug	43.9
OMT120-R103-2EP-IO-0,3M-V1-L	120	Red laser diode	2 x push-pull	Fixed cable with M12 plug	36.5
OMT120-R103-2EP-IO-0,3M-V31-L	120	Red laser diode	2 x push-pull	Fixed cable with M8 plug	36.5
OMT120-R103-2EP-IO-L	120	Red laser diode	2 x push-pull	Fixed cable	36.5
OMT120-R103-2EP-IO-V31-L	120	Red laser diode	2 x push-pull	M8 connector plug	43.9
OMT120-R103-EP-IO-0,3M-V3-L	120	Red laser diode	1 x push-pull	Fixed cable with M8 plug	36.5
OMT120-R103-EP-IO-V3-L	120	Red laser diode	1 x push-pull	M8 connector plug	43.9
OMT150-R103-2EP-IO	150	Red LED	2 x push-pull	Fixed cable	36.5
OMT150-R103-2EP-IO-0,3M-V1	150	Red LED	2 x push-pull	Fixed cable with M12 plug	36.5
OMT150-R103-2EP-IO-0,3M-V31	150	Red LED	2 x push-pull	Fixed cable with M8 plug	36.5
OMT150-R103-2EP-IO-V31	150	Red LED	2 x push-pull	M8 connector plug	43.9
OMT150-R103-EP-IO-0,3M-V3	150	Red LED	1 x push-pull	Fixed cable with M8 plug	36.5
OMT150-R103-EP-IO-V3	150	Red LED	1 x push-pull	M8 connector plug	43.9

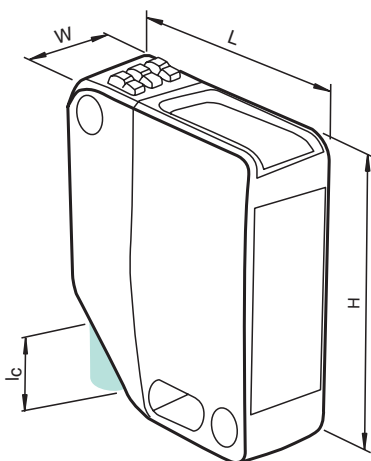| Accessories	
IO-Link-Master02-USB	IO-Link master, power supply via USB port
OMH-ML100-031	Mounting aid for circular profiles, ø 10 mm ... 14 mm or flat profiles 1 mm ... 5 mm
OMH-ML100-09	Mounting aid for circular profiles ø 12 mm or flat profiles 1.5 mm ... 3 mm
OMH-R10X-04	Mounting bracket
OMH-R10X-10	Mounting bracket
V3-WM-2M-PUR	Single-ended female cordset, M8, 3-pin, PUR cable
V31-GM-2M-PUR	Single-ended female cordset, M8, 4-pin, PUR cable

R200 Series

Standard Technical Data	
Function principle	Distance sensor
Interface	IO-Link
Operating elements	Potentiometer, push-button
Voltage type	DC
Operating voltage (max)	30 V
Housing length L	41.7 mm
Housing width W	15 mm
Housing height H	50.6 mm
UL	■

For detailed data and description, see the datasheet. Further products can be found online at www.pepperl-fuchs.com.

Model number	Detection range [mm]	Light type	Output type	UB (min)	Connection type
OMT300-R200-2EP-IO	300	Red LED	2 x push-pull	10	Fixed cable
OMT300-R200-2EP-IO-0,3M-V1	300	Red LED	2 x push-pull	10	Fixed cable with M12 plug
OMT300-R200-2EP-IO-0,3M-V1-L	300	Red laser diode	2 x push-pull	10	Fixed cable with M12 plug
OMT300-R200-2EP-IO-0,3M-V31	300	Red LED	2 x push-pull	10	Fixed cable with M8 plug
OMT300-R200-2EP-IO-0,3M-V31-L	300	Red laser diode	2 x push-pull	10	Fixed cable with M8 plug
OMT300-R200-2EP-IO-L	300	Red laser diode	2 x push-pull	10	Fixed cable
OMT300-R200-2EP-IO-V1	300	Red LED	2 x push-pull	10	M12 connector plug
OMT300-R200-2EP-IO-V1-L	300	Red laser diode	2 x push-pull	10	M12 connector plug
OMT300-R200-2EP-IO-V31	300	Red LED	2 x push-pull	10	M8 connector plug
OMT300-R200-2EP-IO-V31-L	300	Red laser diode	2 x push-pull	10	M8 connector plug
OMT300-R200-EP-IO-0,3M-V3	300	Red LED	1 x push-pull	10	Fixed cable with M8 plug
OMT300-R200-EP-IO-0,3M-V3-L	300	Red laser diode	1 x push-pull	10	Fixed cable with M8 plug
OMT300-R200-EP-IO-V3	300	Red LED	1 x push-pull	10	M8 connector plug
OMT300-R200-EP-IO-V3-L	300	Red laser diode	1 x push-pull	10	M8 connector plug
OMT300-R200-IEP-IO-0,3M-V1	300	Red LED	1 x push-pull, 1 x analog	18	Fixed cable with M12 plug
OMT300-R200-IEP-IO-0,3M-V1-L	300	Red laser diode	1 x push-pull, 1 x analog	18	Fixed cable with M12 plug
OMT300-R200-IEP-IO-0,3M-V31	300	Red LED	1 x push-pull, 1 x analog	18	Fixed cable with M8 plug
OMT300-R200-IEP-IO-0,3M-V31-L	300	Red laser diode	1 x push-pull, 1 x analog	18	Fixed cable with M8 plug
OMT300-R200-IEP-IO-V1	300	Red LED	1 x push-pull, 1 x analog	18	M12 connector plug
OMT300-R200-IEP-IO-V1-L	300	Red laser diode	1 x push-pull, 1 x analog	18	M12 connector plug
OMT300-R200-IEP-IO-V31	300	Red LED	1 x push-pull, 1 x analog	18	M8 connector plug
OMT300-R200-IEP-IO-V31-L	300	Red laser diode	1 x push-pull, 1 x analog	18	M8 connector plug
OMT300-R200-UEP-IO-0,3M-V1	300	Red LED	1 x push-pull, 1 x analog	18	Fixed cable with M12 plug
OMT300-R200-UEP-IO-0,3M-V1-L	300	Red laser diode	1 x push-pull, 1 x analog	18	Fixed cable with M12 plug
OMT300-R200-UEP-IO-0,3M-V31	300	Red LED	1 x push-pull, 1 x analog	18	Fixed cable with M8 plug
OMT300-R200-UEP-IO-0,3M-V31-L	300	Red laser diode	1 x push-pull, 1 x analog	18	Fixed cable with M8 plug
OMT300-R200-UEP-IO-V1	300	Red LED	1 x push-pull, 1 x analog	18	M12 connector plug
OMT300-R200-UEP-IO-V1-L	300	Red laser diode	1 x push-pull, 1 x analog	18	M12 connector plug
OMT300-R200-UEP-IO-V31	300	Red LED	1 x push-pull, 1 x analog	18	M8 connector plug
OMT300-R200-UEP-IO-V31-L	300	Red laser diode	1 x push-pull, 1 x analog	18	M8 connector plug
OMT550-R200-2EP-IO	550	Red LED	2 x push-pull	10	Fixed cable
OMT550-R200-2EP-IO-0,3M-V1	550	Red LED	2 x push-pull	10	Fixed cable with M12 plug
OMT550-R200-2EP-IO-0,3M-V31	550	Red LED	2 x push-pull	10	Fixed cable with M8 plug
OMT550-R200-2EP-IO-V1	550	Red LED	2 x push-pull	10	M12 connector plug
OMT550-R200-2EP-IO-V31	550	Red LED	2 x push-pull	10	M8 connector plug
OMT550-R200-EP-IO-0,3M-V3	550	Red LED	1 x push-pull	10	Fixed cable with M8 plug
OMT550-R200-EP-IO-V3	550	Red LED	1 x push-pull	10	M8 connector plug
OMT550-R200-IEP-IO-0,3M-V1	550	Red LED	1 x push-pull, 1 x analog	18	Fixed cable with M12 plug
OMT550-R200-IEP-IO-0,3M-V31	550	Red LED	1 x push-pull, 1 x analog	18	Fixed cable with M8 plug
OMT550-R200-IEP-IO-V1	550	Red LED	1 x push-pull, 1 x analog	18	M12 connector plug

Model number	Detection range [mm]	Light type	Output type	UB (min)	Connection type
OMT550-R200-IEP-IO-V31	550	Red LED	1 x push-pull, 1 x analog	18	M8 connector plug
OMT550-R200-UEP-IO-0,3M-V1	550	Red LED	1 x push-pull, 1 x analog	18	Fixed cable with M12 plug
OMT550-R200-UEP-IO-0,3M-V31	550	Red LED	1 x push-pull, 1 x analog	18	Fixed cable with M8 plug
OMT550-R200-UEP-IO-V1	550	Red LED	1 x push-pull, 1 x analog	18	M12 connector plug
OMT550-R200-UEP-IO-V31	550	Red LED	1 x push-pull, 1 x analog	18	M8 connector plug
OMT600-R200-2EP-IO-0,3M-V1-L	600	Red laser diode	2 x push-pull	10	Fixed cable with M12 plug
OMT600-R200-2EP-IO-0,3M-V31-L	600	Red laser diode	2 x push-pull	10	Fixed cable with M8 plug
OMT600-R200-2EP-IO-L	600	Red laser diode	2 x push-pull	10	Fixed cable
OMT600-R200-2EP-IO-V1-L	600	Red laser diode	2 x push-pull	10	M12 connector plug
OMT600-R200-2EP-IO-V31-L	600	Red laser diode	2 x push-pull	10	M8 connector plug
OMT600-R200-EP-IO-0,3M-V3-L	600	Red laser diode	1 x push-pull	10	Fixed cable with M8 plug
OMT600-R200-EP-IO-V3-L	600	Red laser diode	1 x push-pull	10	M8 connector plug
OMT600-R200-IEP-IO-0,3M-V1-L	600	Red laser diode	1 x push-pull, 1 x analog	18	Fixed cable with M12 plug
OMT600-R200-IEP-IO-0,3M-V31-L	600	Red laser diode	1 x push-pull, 1 x analog	18	Fixed cable with M8 plug
OMT600-R200-IEP-IO-V1-L	600	Red laser diode	1 x push-pull, 1 x analog	18	M12 connector plug
OMT600-R200-IEP-IO-V31-L	600	Red laser diode	1 x push-pull, 1 x analog	18	M8 connector plug
OMT600-R200-UEP-IO-0,3M-V1-L	600	Red laser diode	1 x push-pull, 1 x analog	18	Fixed cable with M12 plug
OMT600-R200-UEP-IO-0,3M-V31-L	600	Red laser diode	1 x push-pull, 1 x analog	18	Fixed cable with M8 plug
OMT600-R200-UEP-IO-V1-L	600	Red laser diode	1 x push-pull, 1 x analog	18	M12 connector plug
OMT600-R200-UEP-IO-V31-L	600	Red laser diode	1 x push-pull, 1 x analog	18	M8 connector plug

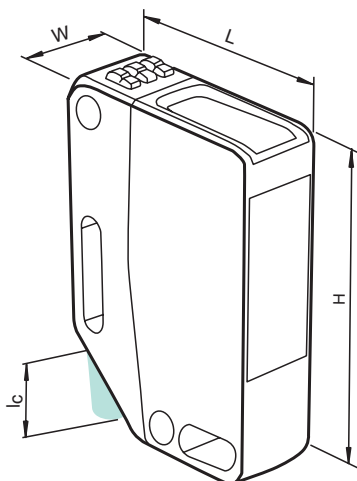| Accessories	
IO-Link-Master02-USB	IO-Link master, power supply via USB port
OMH-MLV12-HWG	Mounting bracket for MLV12 series sensors
OMH-MLV12-HWK	Mounting bracket for MLV12 series sensors
OMH-R200-01	Mounting aid for circular profiles ø 12 mm or flat profiles 1.5 mm ... 3 mm
OMH-R20x-Quick-Mount	Quick-mounting aid
V1-W-2M-PUR	Single-ended female cordset, M12, 4-pin, PUR cable
V3-GM-2M-PUR	Single-ended female cordset, M8, 3-pin, PUR cable
V3-WM-2M-PUR	Single-ended female cordset, M8, 3-pin, PUR cable
V31-GM-2M-PUR	Single-ended female cordset, M8, 4-pin, PUR cable
V31-WM-2M-PUR	Single-ended female cordset, M8, 4-pin, PUR cable

R201 Series

Standard Technical Data	
Function principle	Distance sensor
Interface	IO-Link
Operating elements	Potentiometer, push-button
Voltage type	DC
Operating voltage (max)	30 V
Housing length L	41.7 mm
Housing width W	15 mm
Housing height H	61.7 mm
UL	■

For detailed data and description, see the datasheet. Further products can be found online at www.pepperl-fuchs.com.

Model number	Detection range [mm]	Light type	Output type	UB (min)	Connection type
OMT300-R201-2EP-IO	300	Red LED	2 x push-pull	10	Fixed cable
OMT300-R201-2EP-IO-L	300	Red laser diode	2 x push-pull	10	Fixed cable
OMT300-R201-2EP-IO-V1	300	Red LED	2 x push-pull	10	M12 connector plug
OMT300-R201-2EP-IO-0,3M-V1	300	Red LED	2 x push-pull	10	Fixed cable with M12 plug
OMT300-R201-2EP-IO-V31	300	Red LED	2 x push-pull	10	M8 connector plug
OMT300-R201-2EP-IO-0,3M-V31	300	Red LED	2 x push-pull	10	Fixed cable with M8 plug
OMT300-R201-EP-IO-V3	300	Red LED	1 x push-pull	10	M8 connector plug
OMT300-R201-EP-IO-0,3M-V3	300	Red LED	1 x push-pull	10	Fixed cable with M8 plug
OMT300-R201-IEP-IO-V1	300	Red LED	1 x push-pull, 1 x analog	18	M12 connector plug
OMT300-R201-IEP-IO-0,3M-V1	300	Red LED	1 x push-pull, 1 x analog	18	Fixed cable with M12 plug
OMT300-R201-IEP-IO-V31	300	Red LED	1 x push-pull, 1 x analog	18	M8 connector plug
OMT300-R201-IEP-IO-0,3M-V31	300	Red LED	1 x push-pull, 1 x analog	18	Fixed cable with M8 plug
OMT300-R201-UEP-IO-V1	300	Red LED	1 x push-pull, 1 x analog	18	M12 connector plug
OMT300-R201-UEP-IO-0,3M-V1	300	Red LED	1 x push-pull, 1 x analog	18	Fixed cable with M12 plug
OMT300-R201-UEP-IO-V31	300	Red LED	1 x push-pull, 1 x analog	18	M8 connector plug
OMT300-R201-UEP-IO-0,3M-V31	300	Red LED	1 x push-pull, 1 x analog	18	Fixed cable with M8 plug
OMT300-R201-2EP-IO-V1-L	300	Red laser diode	2 x push-pull	10	M12 connector plug
OMT300-R201-2EP-IO-0,3M-V1-L	300	Red laser diode	2 x push-pull	10	Fixed cable with M12 plug
OMT300-R201-2EP-IO-0,3M-V31-L	300	Red laser diode	2 x push-pull	10	Fixed cable with M8 plug
OMT300-R201-2EP-IO-V31-L	300	Red laser diode	2 x push-pull	10	M8 connector plug
OMT300-R201-EP-IO-0,3M-V3-L	300	Red laser diode	1 x push-pull	10	Fixed cable with M8 plug
OMT300-R201-EP-IO-V3-L	300	Red laser diode	1 x push-pull	10	M8 connector plug
OMT300-R201-IEP-IO-0,3M-V1-L	300	Red laser diode	1 x push-pull, 1 x analog	18	Fixed cable with M12 plug
OMT300-R201-IEP-IO-0,3M-V31-L	300	Red laser diode	1 x push-pull, 1 x analog	18	Fixed cable with M8 plug
OMT300-R201-IEP-IO-V1-L	300	Red laser diode	1 x push-pull, 1 x analog	18	M12 connector plug
OMT300-R201-IEP-IO-V31-L	300	Red laser diode	1 x push-pull, 1 x analog	18	M8 connector plug
OMT300-R201-UEP-IO-0,3M-V1-L	300	Red laser diode	1 x push-pull, 1 x analog	18	Fixed cable with M12 plug
OMT300-R201-UEP-IO-0,3M-V31-L	300	Red laser diode	1 x push-pull, 1 x analog	18	Fixed cable with M8 plug
OMT300-R201-UEP-IO-V1-L	300	Red laser diode	1 x push-pull, 1 x analog	18	M12 connector plug
OMT300-R201-UEP-IO-V31-L	300	Red laser diode	1 x push-pull, 1 x analog	18	M8 connector plug
OMT550-R201-2EP-IO	550	Red LED	2 x push-pull	10	Fixed cable
OMT550-R201-2EP-IO-V1	550	Red LED	2 x push-pull	10	M12 connector plug
OMT550-R201-2EP-IO-0,3M-V1	550	Red LED	2 x push-pull	10	Fixed cable with M12 plug
OMT550-R201-2EP-IO-V31	550	Red LED	2 x push-pull	10	M8 connector plug
OMT550-R201-2EP-IO-0,3M-V31	550	Red LED	2 x push-pull	10	Fixed cable with M8 plug
OMT550-R201-EP-IO-V3	550	Red LED	1 x push-pull	10	M8 connector plug
OMT550-R201-EP-IO-0,3M-V3	550	Red LED	1 x push-pull	10	Fixed cable with M8 plug
OMT550-R201-IEP-IO-V1	550	Red LED	1 x push-pull, 1 x analog	18	M12 connector plug
OMT550-R201-IEP-IO-0,3M-V1	550	Red LED	1 x push-pull, 1 x analog	18	Fixed cable with M12 plug
OMT550-R201-IEP-IO-V31	550	Red LED	1 x push-pull, 1 x analog	18	M8 connector plug

Model number	Detection range [mm]	Light type	Output type	UB (min)	Connection type
OMT550-R201-IEP-IO-0,3M-V31	550	Red LED	1 x push-pull, 1 x analog	18	Fixed cable with M8 plug
OMT550-R201-UEP-IO-V1	550	Red LED	1 x push-pull, 1 x analog	18	M12 connector plug
OMT550-R201-UEP-IO-0,3M-V1	550	Red LED	1 x push-pull, 1 x analog	18	Fixed cable with M12 plug
OMT550-R201-UEP-IO-V31	550	Red LED	1 x push-pull, 1 x analog	18	M8 connector plug
OMT550-R201-UEP-IO-0,3M-V31	550	Red LED	1 x push-pull, 1 x analog	18	Fixed cable with M8 plug
OMT600-R201-2EP-IO-0,3M-V1-L	600	Red laser diode	2 x push-pull	10	Fixed cable with M12 plug
OMT600-R201-2EP-IO-0,3M-V31-L	600	Red laser diode	2 x push-pull	10	Fixed cable with M8 plug
OMT600-R201-2EP-IO-L	600	Red laser diode	2 x push-pull	10	Fixed cable
OMT600-R201-2EP-IO-V1-L	600	Red laser diode	2 x push-pull	10	M12 connector plug
OMT600-R201-2EP-IO-V31-L	600	Red laser diode	2 x push-pull	10	M8 connector plug
OMT600-R201-EP-IO-0,3M-V3-L	600	Red laser diode	1 x push-pull	10	Fixed cable with M8 plug
OMT600-R201-EP-IO-V3-L	600	Red laser diode	1 x push-pull	10	M8 connector plug
OMT600-R201-IEP-IO-0,3M-V1-L	600	Red laser diode	1 x push-pull, 1 x analog	18	Fixed cable with M12 plug
OMT600-R201-IEP-IO-0,3M-V31-L	600	Red laser diode	1 x push-pull, 1 x analog	18	Fixed cable with M8 plug
OMT600-R201-IEP-IO-V1-L	600	Red laser diode	1 x push-pull, 1 x analog	18	M12 connector plug
OMT600-R201-IEP-IO-V31-L	600	Red laser diode	1 x push-pull, 1 x analog	18	M8 connector plug
OMT600-R201-UEP-IO-0,3M-V1-L	600	Red laser diode	1 x push-pull, 1 x analog	18	Fixed cable with M12 plug
OMT600-R201-UEP-IO-0,3M-V31-L	600	Red laser diode	1 x push-pull, 1 x analog	18	Fixed cable with M8 plug
OMT600-R201-UEP-IO-V1-L	600	Red laser diode	1 x push-pull, 1 x analog	18	M12 connector plug
OMT600-R201-UEP-IO-V31-L	600	Red laser diode	1 x push-pull, 1 x analog	18	M8 connector plug

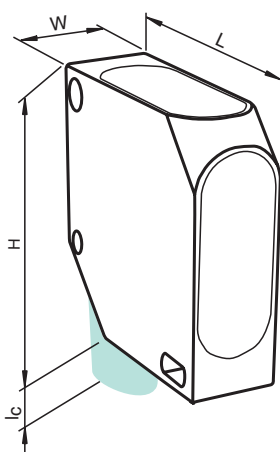| Accessories	
IO-Link-Master02-USB	IO-Link master, supply via USB port or separate power supply, LED indicators, M12 plug for sensor connection
OMH-R20x-Quick-Mount	Quick-mounting aid
OMH-RL31-02	Narrow mounting bracket
OMH-RL31-03	Narrow mounting bracket
OMH-RL31-04	Mounting aid for circular profiles ø 12 mm or flat profiles 1.5 mm ... 3 mm
OMH-RL31-07	Mounting bracket complete with adjustment component
V1-G-2M-PUR	Single-ended female cordset, M12, 4-pin, PUR cable
V1-W-2M-PUR	Single-ended female cordset, M12, 4-pin, PUR cable
V3-GM-2M-PUR	Single-ended female cordset, M8, 3-pin, PUR cable
V31-GM-2M-PUR	Single-ended female cordset, M8, 4-pin, PUR cable

VDM18 Series

Standard Technical Data	
Function principle	Distance sensor
Light type	Red laser diode
Operating elements	Potentiometer
Voltage type	DC
Operating voltage (min)	18 V
Operating voltage (max)	30 V
Connection type	M12 connector plug
Housing length L	50 mm
Housing width W	17 mm
Housing height H	50 mm
UL	■

For detailed data and description, see the datasheet. Further products can be found online at www.pepperl-fuchs.com.

Model number	Detection range [mm]	Output type
VDM18-100/20/122/151	100	PNP
VDM18-100/20/88/122/151	100	PNP
VDM18-100/32/105/122	100	PNP
VDM18-300/20/122/151	300	PNP
VDM18-300/20/88/122/151	300	PNP
VDM18-300/21/122/151	300	NPN
VDM18-300/32/105/122	300	PNP

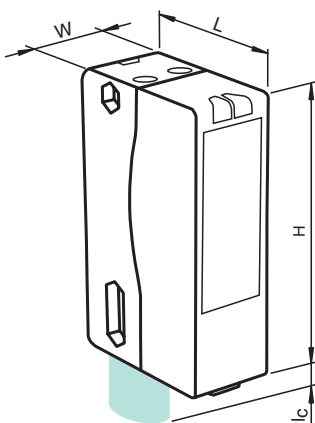| Accessories	
OMH-VDM18-01	Mounting aid for series VDM18 distance measurement devices
OMH-VDM18-02	Mounting aid for series VDM18 distance measurement devices

VDM28 Series

Standard Technical Data

Function principle	Distance sensor
Operating elements	Potentiometer, push-button
Voltage type	DC
Operating voltage (min)	10 V
Operating voltage (max)	30 V
Housing width W	25.8 mm
Housing height H	88 mm
UL	■

For detailed data and description, see the datasheet. Further products can be found online at www.pepperl-fuchs.com.

Model number	Detection range [mm]	Light type	Interface	Output type	Connection type	Length L	EAC
VDM28-8-L1-IO/110/115b/122	8000	Red laser diode	IO-Link	1 x push-pull	Fixed cable with M12 plug	54.6	
VDM28-8-L1-IO/115b/136	8000	Red laser diode	IO-Link	2 x push-pull	Fixed cable with M12 plug	54.6	
VDM28-8-L1-IO/33/110/115b/122	8000	Red laser diode	IO-Link	1 x push-pull	Fixed cable with M12 plug	54.6	
VDM28-8-L1-IO/73c/110/122	8000	Red laser diode	IO-Link	1 x push-pull	M12 connector plug	54.6	
VDM28-8-L1-IO/73c/136	8000	Red laser diode	IO-Link	2 x push-pull	M12 connector plug	54.6	
VDM28-8-L1-IR-IO/73C/110/122	8000	Infrared laser diode	IO-Link	1 x push-pull	M12 connector plug	54.6	
VDM28-8-L1/73c/136	8000	Red laser diode		2 x push-pull	M12 connector plug	54.3	
VDM28-15-L1-IO/110/115b/122	15000	Red laser diode	IO-Link	1 x push-pull	Fixed cable with M12 plug	54.6	
VDM28-15-L1-IO/73c/110/122	15000	Red laser diode	IO-Link	1 x push-pull	M12 connector plug	54.6	■
VDM28-15-L1/73c/136	15000	Red laser diode		2 x push-pull	M12 connector plug	54.3	
VDM28-50-R1-IO/73c/110/122	50000	Red laser diode	IO-Link	1 x push-pull	M12 connector plug	54.6	
VDM28-50-R1-IO/73c/136	50000	Red laser diode		2 x push-pull	M12 connector plug	54.6	
VDM28-50-R1-IR-IO/73c/110/122	50000	Infrared laser diode	IO-Link	1 x push-pull	M12 connector plug	54.6	
VDM28-50-R1/73c/136	50000	Red laser diode		2 x push-pull	M12 connector plug	54.6	

Accessories

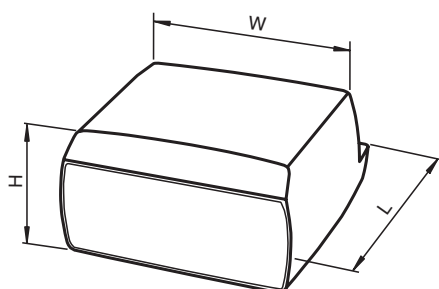|	
IO-Link-Master02-USB	IO-Link master, supply via USB port or separate power supply, LED indicators, M12 plug for sensor connection
OFR-100/100	Optical reflective film, 100 mm x 100 mm
OMH-05	Mounting aid for circular profiles ø 12 mm or flat profiles 1.5 mm ... 3 mm
OMH-07-01	Mounting aid for circular profiles ø 12 mm or flat profiles 1.5 mm ... 3 mm
OMH-21	Mounting bracket
OMH-22	Mounting bracket
OMH-K01	Mounting clamp for sensors with dovetail groove
OMH-K03	Mounting clamp for sensors with dovetail groove
OMH-RL28-C	Protective cover for protection against welding beads
OMH-RLK29-HW	Mounting bracket for rear wall mounting

VDM100 Series

Standard Technical Data

Function principle	Distance sensor
Light type	Infrared laser diode, red laser diode
Operating elements	Push-button
Voltage type	DC
Operating voltage (min)	18 V
Operating voltage (max)	30 V
Connection type	M12 connector plug
Housing length L	170 mm
Housing width W	140 mm
Housing height H	100 mm
UL	■

For detailed data and description, see the datasheet. Further products can be found online at www.pepperl-fuchs.com.

Model number	Detection range [mm]	Interface	EAC
VDM100-50-EIP/G2	50000	Ethernet	
VDM100-50-IBS/G2	50000	INTERBUS	
VDM100-50-P/G2	50000	PROFIBUS	
VDM100-50-P/G2/146	50000	PROFIBUS	
VDM100-50-SSI/G2	50000	RS-422, SSI	■
VDM100-50-SSI/G2/146	50000	RS-422, SSI	
VDM100-150-EIP/G2	150000	Ethernet	
VDM100-150-IBS/G2	150000	INTERBUS	
VDM100-150-P/G2	150000	PROFIBUS	
VDM100-150-P/G2/146	150000	PROFIBUS	
VDM100-150-SSI/G2	150000	RS-422, SSI	
VDM100-150-SSI/G2/146	150000	RS-422, SSI	
VDM100-300-EIP/G2	300000	Ethernet	
VDM100-300-IBS/G2	300000	INTERBUS	
VDM100-300-P/G2	300000	PROFIBUS	
VDM100-300-SSI/G2	300000	RS-422, SSI	

Accessories

Funktionserdung	Functional grounding for LS610/LS611/VDM100 series
ICZ-TR-V15B	Terminator for PROFIBUS
OFR-500/500	Optical reflective film
OMH-LS610-01	Mounting bracket for optical data couplers
OMH-LS610-02	Direct mounting set consisting of four M4 threaded inserts
OMH-LS610-03	Mounting bracket with deviation mirror for optical data couplers
OMH-VDM100-01	Mounting bracket with deviation mirror for distance measurement devices
REF-VDM02	Reflector for distance measurement devices
Schutzkappe	M12 protective cap set (plug + socket) for LS610/LS611 series
V15-G-PG9	Single-ended female cordset, M12, 5-pin, field-attachable

R2100 Series

Standard Technical Data	
Function principle	2-D LIDAR sensor
Detection range	8000 mm
Light type	Infrared LED
Voltage type	DC
Operating voltage (min)	10 V
Operating voltage (max)	30 V
Connection type	M12 connector plug
Housing length L	157 mm
Housing width W	81 mm
Housing height H	45 mm
UL	■

For detailed data and description, see the datasheet. Further products can be found online at www.pepperl-fuchs.com.
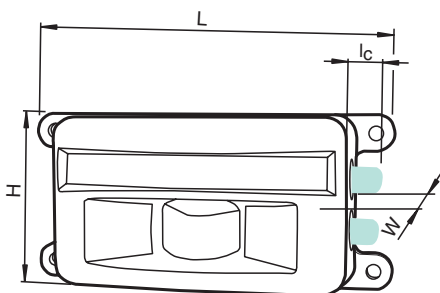
Model number	Interface
OMD8000-R2100-B16-2V15	CAN
OMD8000-R2100-R2-2V15	

Highlights

- Development of the PRT ensures reliable and clear measurement
- Long service life due to measurement using LEDs
- Ideal for mechanically demanding applications as there are no moving parts in the sensor
- 2D measurement using 11 individual rays
- Large light spots tolerate different surface textures
- Reduced energy consumption for greater cost efficiency
- High speed of response for faster processes

Brief Description

The unique development of PRT offers the user unprecedented flexibility. Impressive sensor performance and durability make the R2100 a cost-effective solution with an outstanding performance.

Accessories	
V1-G-BK5M-PUR-U	Single-ended female cordset, M12, 4-pin, PUR cable
V1-W-2M-PUR	Single-ended female cordset, M12, 4-pin, PUR cable

R2000 Series

Standard Technical Data	
Function principle	2-D LIDAR sensor
Operating elements	Push-button
Voltage type	DC
Operating voltage (min)	10 V
Operating voltage (max)	30 V
Connection type	M12 connector plug
Housing length L	106 mm
Housing width W	106 mm
Housing height H	116.5 mm
UL	■

For detailed data and description, see the datasheet. Further products can be found online at www.pepperl-fuchs.com.
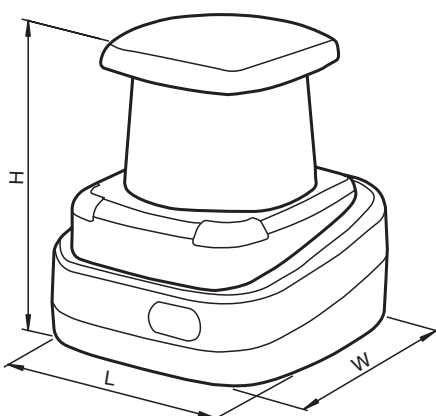
Model number	Detection range [mm]	Light type	Repeat rate [kHz]	Resolution
OBD10M-R2000-4EP-V1V17	10000	Red laser diode	54	
OMD10M-R2000-B23-V1V1D	10000	Red laser diode	250	1 mm
OMD12M-R2000-B23-V1V1D-HD-1L	12000	Infrared laser diode	84	1 mm
OBD30M-R2000-4EP-V1V17-1L	30000	Infrared laser diode	54	
OBD30M-R2000-4EP-V1V17-T-1L	30000	Infrared laser diode	54	
OMD30M-R2000-B23-V1V1D-1L	30000	Infrared laser diode	250	1 mm
OMD30M-R2000-B23-V1V1D-HD-1L	30000	Infrared laser diode	84	1 mm
OMD30M-R2000-B23-V1V1D-T-1L	30000	Infrared laser diode	250	1 mm
OMD60M-R2000-B23-V1V1D-1L	60000	Infrared laser diode	250	1 mm
OMD60M-R2000-B23-V1V1D-T-1L	60000	Infrared laser diode	250	1 mm

Highlights

- Innovative Pulse Ranging Technology (PRT) ensures reliable and clear measurements
- Sharp light spot for small-object detection and precise edge detection
- All-round visibility with 360° measuring angle
- Compact design for simple mechanical integration
- Interactive wrap-around display facilitates commissioning

Brief Description

The R2000 series offers a wide range of unique functionalities that make object detection safer than ever before, ever under the most challenging of conditions. A small light spot combined with a high angular resolution makes it possible to detect even the smallest of objects. The all-round visibility and measuring angle of 360° eliminate the need for multiple sensors. The R2000 series is very compact, for straightforward and space-saving integration into the application. The interactive display makes it possible to show text and graphic messages. Basic settings can be configured directly on the device.

Accessories	
Funktionserdung	Functional grounding for LS610/LS611/VDM100 series
MH-R2000	Mounting aid for R2000 series sensors, quick-lock and adjustment device
Schutzkappe	M12 protective cap set (plug + socket) for LS610/LS611 series
V1-G-5M-PUR	Single-ended female cordset, M12, 4-pin, PUR cable
V1-G-BK5M-PUR-U	Single-ended female cordset, M12, 4-pin, PUR cable
V1SD-G-2M-PUR-ABG-V45-G	Cordset, M12 to RJ-45, PUR cable, 4-pin, CAT5e
V1SD-G-5M-PUR-ABG-V45-G	Cordset, M12 to RJ-45, PUR cable, 4-pin, CAT5e
V1SD-G-ABG-PG9	Single-ended male cordset, M12, 4-pin, D-coded, shielded, field-attachable