



Model Number

VDM28-8-L-IO/73c/136

Distance sensor
with 4-pin, M12 x 1 connector

Features

- Operates reliably with Pulse Ranging Technology (PRT)
- Red laser as the light emitter
- Smallest device with PRT for applications as measuring sensor
- High reproducibility irrespective of the surface
- Minimal black-white difference
- 2 Switching points per output
- IO-link interface for service and process data
- Not sensitive to ambient light, even with energy saving lamps
- Temperature range -30°C to 60°C

Description

The VDM28 distance measurement device employs Pulse Ranging Technology (PRT). It has a repeat accuracy of 5 mm with an operating range of 0.2 ... 8 m and an absolute accuracy of 25 mm.

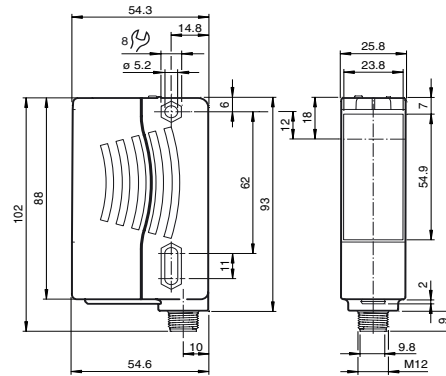
The sensor is highly resistant to ambient conditions. The compact housing of the Series 28 photoelectric sensors, with dimensions of 88 mm (height), 26 mm (width) and 54 mm (depth), make it the smallest device available in its class.

Accessories

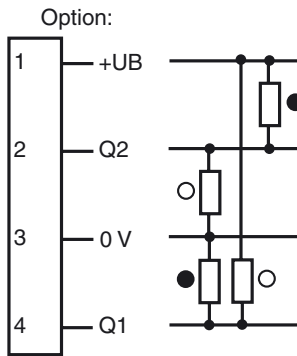
OMH-05

Additional accessories can be found in the Internet.

Dimensions

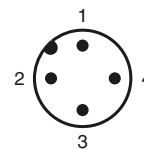


Electrical connection

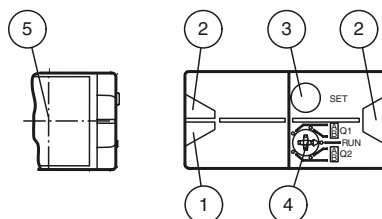


○ = Light on
● = Dark on

Pinout



Indicators/operating means



1	Operating display	green
2	Signal display	yellow
3	TEACH-IN button	
4	Mode rotary switch	
5	Optical axis emitter	

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Technical data

General specifications

Light source	laser diode red , 660 nm
Angle deviation	max. $\pm 2^\circ$
Approvals	CE
Measuring method	Pulse Ranging Technology (PRT)
Measuring range	0.2 ... 8 m
Reference target	Kodak white (90%)
Light type	red, modulated light
Diameter of the light spot	approx. 10 mm at a distance of 8 m
Ambient light limit	50000 Lux
Temperature influence	typ. ≤ 0.25 mm/K

Indicators/operating means

Operating display	LED green
Function display	2 LEDs yellow for switching state
Teach-In indication	Teach-In mark: LED green/yellow equiphase flashing; 2,5 Hz Teach-In background: LED green/yellow non equiphase flashing; 2,5 Hz Teach-In dynamic: LED green/yellow equiphase flashing; 1.0 Hz Teach Error: LED green/yellow non equiphase flashing; 8.0 Hz
Operating elements	5-step rotary switch for operating modes selection (threshold setting and operating modes)
Operating elements	Switch for setting the threshold values

Electrical specifications

Operating voltage	U_B	10 ... 30 V DC , class 2
Protection class		II
Ripple		10 % within the supply tolerance
No-load supply current	I_0	≤ 70 mA / 24 V DC

Interface

Protocol	IO link V1.0
Interface type	IO-Link
Mode	COM 2 (38.4 kBaud)

Output

Signal output	2 Push-pull outputs, short-circuit proof, reverse polarity protection
Switching voltage	max. 30 V DC
Switching current	max. 100 mA
Switching frequency	f 50 Hz
Response time	10 ms

Performance characteristics

Absolute accuracy	± 25 mm
Repeat accuracy	< 5 mm

Standard conformity

Standards	EN 60947-5-2
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Ambient conditions

Ambient temperature	-30 ... 50 °C (243 ... 323 K)
Storage temperature	-30 ... 70 °C (243 ... 343 K)

Mechanical specifications

Protection degree	IP65
Connection	connector M12 x 1, 4-pin
Material	
Housing	Plastic ABS
Optical face	Plastic pane
Mass	90 g

Curves/Diagrams

