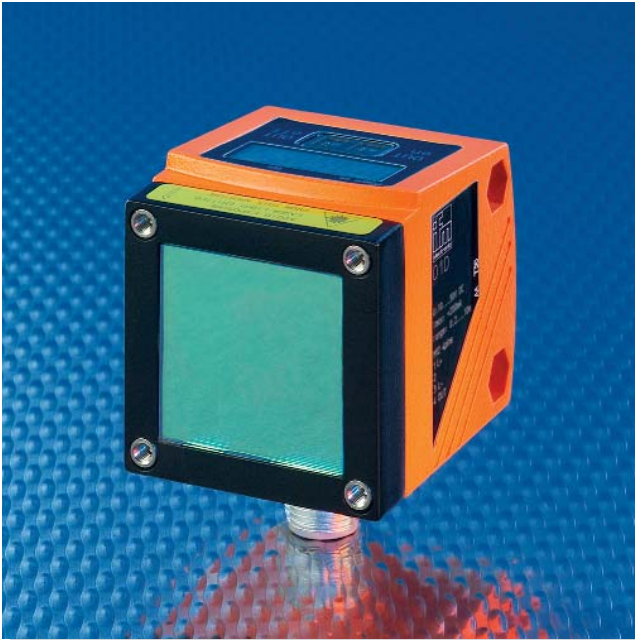




Position sensors and object recognition

efector[®] pmd Optical distance sensor – easy and at a low cost.



Extremely compact design with PMD technology.

- Optical measurement system with 10 m range.
- 2 switching outputs, one can be configured as an analogue output.
- For use in applications needing background suppression.
- Excellent price / performance ratio.
- Scalable measuring range.



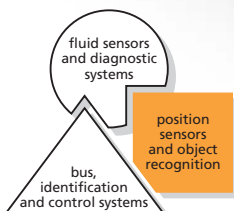
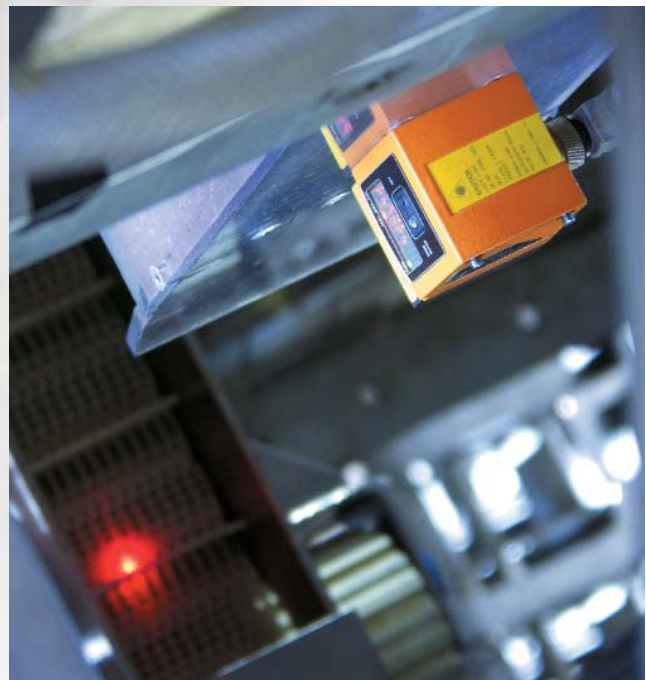
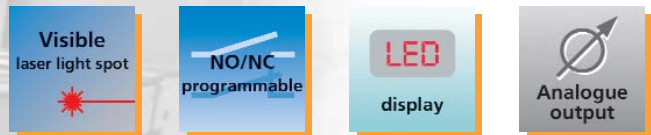
PMD technology

Due to the innovative on-chip time of flight measurement system with PMD technology (Photonic Mixer Device) the O1D100 is a distance sensor with the capacities of a measurement system, at the price of a standard sensor.

The outstanding advantage of the PMD technology is the extremely low size of the sensor, only 42 x 42 x 52 mm.

Unimagined possibilities

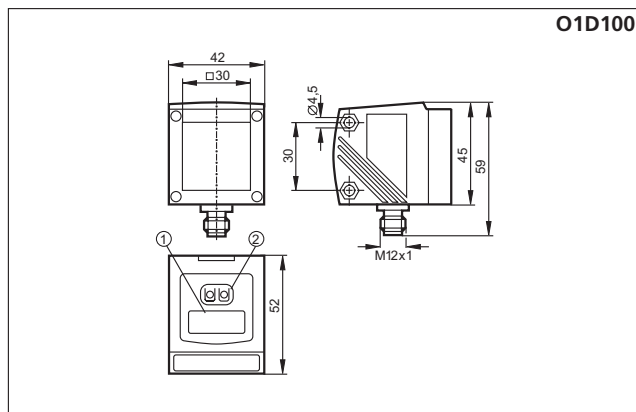
efector PMD is designed for positioning, speed control and level measurement tasks and to protect autonomous industrial transport systems against collision or to position utility vehicles and industrial trucks in high rack storage areas.



Applications:
Distance measurement in automation technology

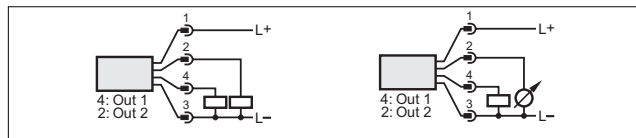
Electrical design	Light spot diameter [mm]	Operating voltage [V]	Current consumption [mA]	Measuring frequency [Hz]	Distance to background [m]	Protection	Order no.
M12 connector · laser protection class 2 · measuring range 0.2...10 m							
DC PNP	6 (range max. 10 m)	18...30 DC	< 150	max. 50, adjustable	< 19	IP 65, III	O1D100
DC NPN	6 (range max. 10 m)	18...30 DC	< 150	max. 50, adjustable	< 19	IP 65, III	O1D103

Dimensions




- 1) 4-digit alphanumeric display
- 2) Programming buttons




Wiring diagram







Accessories

Type	Description	Order no.
	Stainless steel mounting set for rod mounting Ø 12 mm	E2D101
	Stainless steel mounting set for rod mounting Ø 14 mm	E2D111

Further technical data

Type O1D100	
Output function	OUT1  programmable OUT2  programmable or analogue (4...20 mA, scaleable), (0...10 V, scaleable)
Short-circuit prot., pulsed	•
Rev. polarity / overl. protection	• / •
Operating temperature [°C]	-10...60
Material	housing: diecast zinc front pane: glass LED window: polycarbonate
Programming options	 , window function analogue output
Function display	
Switching status	LED
Power	2 x yellow green
Distance, programming	4-digit alphanumeric display

Connectors and splitter boxes

Type	Description	Order no.
	Socket, M12, 5 m orange, PVC cable	E10662
	Socket, M12, 10 m orange, PVC cable	E10663
	Socket, M12, 5 m orange, PVC cable	E10700
	Socket, M12, 10 m orange, PVC cable	E10701

Measuring range	Repeatability*		Accuracy*	
	white (90 % remission)	grey (18 % remission)	white (90 % remission)	grey (18 % remission)
200...1000 mm	± 4.0 mm	± 4.5 mm	± 14.0 mm	± 15.0 mm
1000...2000 mm	± 4.5 mm	± 6.0 mm	± 14.5 mm	± 16.0 mm
2000...4000 mm	± 13.5 mm	± 14.5 mm	± 23.5 mm	± 24.0 mm
4000...6000 mm	± 19.0 mm	± 21.0 mm	± 29.0 mm	± 31.0 mm
6000...10000 mm	± 37.0 mm		± 47.0 mm	

* The values indicated for repeatability and accuracy refer to a measuring frequency of 1 Hz. For higher measuring frequencies which can be set on the unit, these values increase.
The values apply at constant ambient conditions, (23 °C / 960 hPa), extraneous light of max. 8 klx, only after unit powered up for 10 minutes.