



Convenient optical distance measurement at a low cost.



Extremely compact laser distance sensor.

- 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.



Visible laser light spot	NO/NC programmable	LED display	Analogue output
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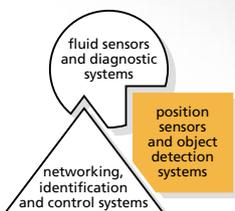
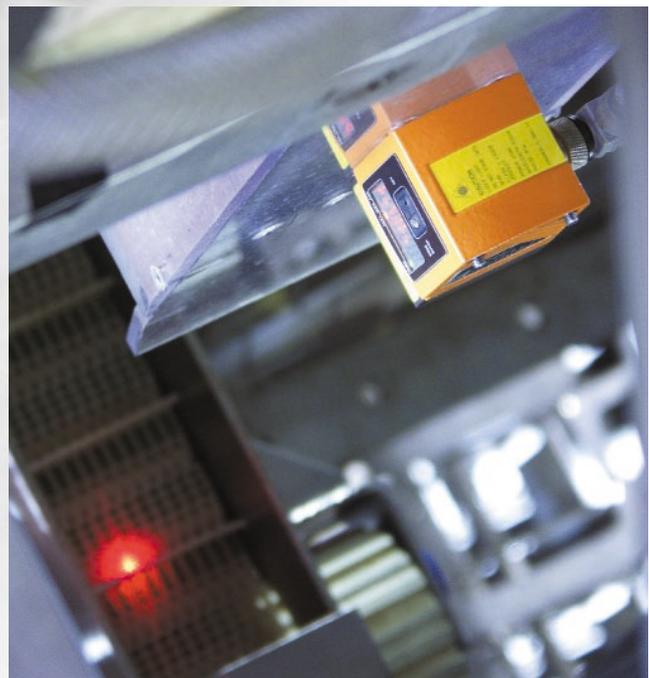
PMD technology

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

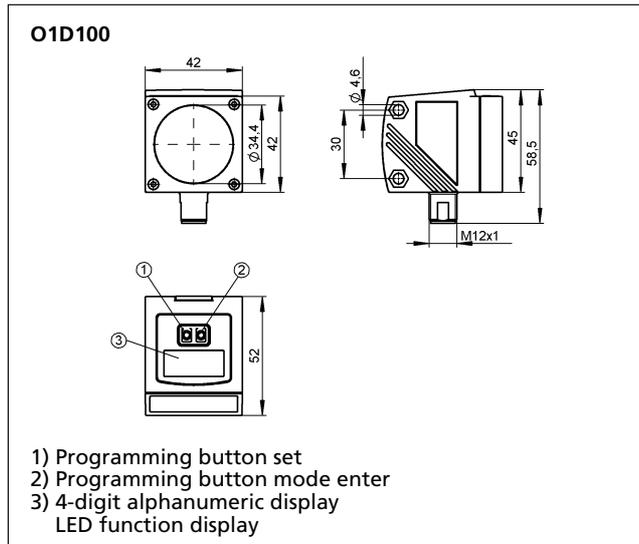
efector PMD is designed for positioning, speed control and level measurement tasks and to protect autonomous industrial transport systems against collision or to position utility vehicles and industrial trucks in high rack storage areas.



Applications:
Distance measurement in automation technology

Electrical design	Light spot diameter [mm]	Operating voltage [V]	Current consumption [mA]	Sampling rate / switching frequency [Hz]	Operating temperature [°C]	Protection	Order no.
M12 connector · laser protection class 2 · measuring range 0.2...10 m							
DC PNP	6 (range max. 10m)	10...30 DC	< 150	max. 50, adjustable	-10...60	IP 65, III	O1D100

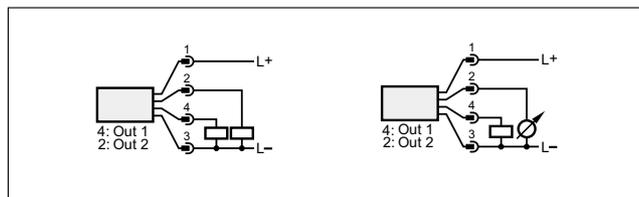
Dimensions



Further technical data

Type O1D100	
Output function	OUT1 programmable OUT2 programmable or analogue (4...20 mA, scaleable)
Short-circuit prot., pulsed	•
Rev. polarity/overl. protection	• / •
EMC	EN 60947-5-2
Material	housing: diecast zinc front pane: glass LED window: polycarbonate
Programming options	/ , window function analogue output
Function display	
Switching status	LED
Power	LED: 2 x yellow green
Distance, programming	4-digit alphanumeric display

Wiring diagram



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	± 5 mm	± 7.5 mm	± 15 mm	± 18 mm
1000...2000 mm	± 5.5 mm	± 10 mm	± 15 mm	± 20 mm
2000...4000 mm	± 17.5 mm	± 22.5 mm	± 25 mm	± 32 mm
4000...6000 mm	± 27.5 mm		± 35 mm	
6000...10000 mm	± 60 mm		± 70 mm	

The values indicated for repeatability and accuracy refer to a measuring frequency of 50 Hz. For lower measuring frequencies which can be set on the unit, these values decrease (e.g. on white and with 1000 mm and 1 Hz measuring frequency repeatability is 1.5 mm).

* values for constant ambient conditions, statistical error 3 sigma

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