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.
- Scaleable 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

<table>
<thead>
<tr>
<th>Electrical design</th>
<th>Light spot diameter [mm]</th>
<th>Operating voltage [V]</th>
<th>Current consumption [mA]</th>
<th>Sampling rate / switching frequency [Hz]</th>
<th>Operating temperature [+°C]</th>
<th>Protection</th>
<th>Order no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>M12 connector · laser protection class 2 · measuring range 0.2...10 m</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>O1D100</td>
</tr>
</tbody>
</table>

For further technical data please go to: www.ifm-electronic.com

Dimensions

1) 4-digit alphanumeric display
2) Programming buttons

Further technical data

Output function
OUT1
OUT2
programmable
programmable
or analogue (4...20 mA, scaleable),
(0...10 V, scaleable)

Short-circuit prot., pulsed
Rev. polarity / overl. protection

EMC

Material
housing
front pane
LED window
diecast zinc
glass
polycarbonate

Programming options

Function display
Switching status
Power

Distance, programming

4-digit alphanumeric display

Connectors and splitter boxes

<table>
<thead>
<tr>
<th>Type</th>
<th>Description</th>
<th>Order no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Socket, M12, 5 m orange, PVC cable</td>
<td>E10662</td>
<td></td>
</tr>
<tr>
<td>Socket, M12, 10 m orange, PVC cable</td>
<td>E10663</td>
<td></td>
</tr>
<tr>
<td>Socket, M12, 5 m orange, PVC cable</td>
<td>E10700</td>
<td></td>
</tr>
<tr>
<td>Socket, M12, 10 m orange, PVC cable</td>
<td>E10701</td>
<td></td>
</tr>
</tbody>
</table>

Measuring range

<table>
<thead>
<tr>
<th>Measuring range</th>
<th>Repeatability*</th>
<th>Accuracy*</th>
</tr>
</thead>
<tbody>
<tr>
<td>white (90 % remission)</td>
<td>grey (18 % remission)</td>
<td>white (90 % remission)</td>
</tr>
<tr>
<td>200...1000 mm</td>
<td>± 5 mm</td>
<td>± 7.5 mm</td>
</tr>
<tr>
<td>1000...2000 mm</td>
<td>± 5.5 mm</td>
<td>± 10 mm</td>
</tr>
<tr>
<td>2000...4000 mm</td>
<td>± 17.5 mm</td>
<td>± 22.5 mm</td>
</tr>
<tr>
<td>4000...6000 mm</td>
<td>± 27.5 mm</td>
<td></td>
</tr>
<tr>
<td>6000...10000 mm</td>
<td>± 60 mm</td>
<td></td>
</tr>
</tbody>
</table>

* 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.

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.