Install and start!

The opto-electronic sensors SOOD are the perfect solution for a wide variety of object detection tasks – even in very confined application environments. They are fast and cost effective thanks to an integrated concept with standardised sensor functions and reusable mounting accessories.

**Highlights**
- Easy operation
- Quick commissioning
- Reliable and stable detection
- Low complexity, PNP and NPN in one device
- Attractive price/performance ratio

**Engineering in record time**
The sensor SOOD can be used straightaway in almost all applications without needing to be parameterised.

**Up for every challenge**
The required range of functions can be freely selected depending on the task, from background suppression to through-beam sensor. To achieve this unprecedented level of flexibility and versatility, the SOOD is equipped with LEDs or laser LEDs and visible, red wavelengths.

**Unique laser technology**
The eye-safe laser LEDs from laser class 1 are particularly durable. Their focused light emitters make expensive fibre-optic cable solutions with focusing lenses superfluous. The setup times are also reduced, while the sensor response time of just 250 µs plus background suppression increases the throughput – virtually independently of colour.
Opto-electronic sensors SOOD

For up to 95 per cent of all automation applications

As a retro-reflective sensor with polarisation filters, sensors SOOD also reliably and safely detect reflective objects. In addition, they reduce the amount of wiring required and the maintenance costs compared with conventional through-beam sensors. The laser through-beam sensors demonstrate their strengths for the detection of small parts even at large distances. Thanks to the extremely precise light spot, even the smallest objects or features can be detected quickly and reliably, e.g. notches or minimum height differences for detecting the correct position.

Machine availability is also significantly increased thanks to an antistatic, flat and abrasion-resistant front panel that prevents dirt deposits or scratches.

Key benefits at a glance

- Wide range of operating modes in one sensor size
- Precise object detection at a distance of 1 mm to 10 m
- Resistant to external light and not influenced by reflective object surfaces
- Reliable detection of dark surfaces
- Reliable suppression of objects in the background
- Functional even under changing conditions
- Good resistance to environmental influences

Technical data

<table>
<thead>
<tr>
<th></th>
<th>SOOD</th>
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<tbody>
<tr>
<td>Switching output</td>
<td>PNP/NPN (push-pull)</td>
</tr>
<tr>
<td>Operating voltage range [VDC]</td>
<td>10 ... 30</td>
</tr>
<tr>
<td>Laser protection class</td>
<td>Laser class 1</td>
</tr>
<tr>
<td>Electrical connection</td>
<td>150 mm cable with M8x1, 3-pin</td>
</tr>
<tr>
<td>Degree of protection</td>
<td>IP65, IP67</td>
</tr>
<tr>
<td>Approval certificate</td>
<td>c UL us - Recognized(OL)</td>
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Variants

<table>
<thead>
<tr>
<th>Function</th>
<th>SOOD LED</th>
<th>SOOD laser</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diffuse sensor with background suppression</td>
<td>•</td>
<td>•</td>
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<tr>
<td>Through-beam sensor</td>
<td>•</td>
<td>•</td>
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<tr>
<td>Retro-reflective sensor</td>
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Dimensions

Electrical connection

Wire colours to EN 60947-5-2

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