Radar distance measuring sensors

**general data**
- Scanning range \( S_d \): 0.3 ... 8.5 m
- Scanning range close limit \( S_{dc} \): 0.3 ... 8.5 m
- Scanning range far limit \( S_{de} \): 0.3 ... 8.5 m
- Repeat accuracy: < 1 mm
- Response time \( t_{on} \): < 6.5 ms
- Release time \( t_{off} \): < 6.5 ms
- Temperature drift: < ± 10 mm (Full Scale)
- Adjustment: qTeach / external
- Alignment aid: light indicator flashing
- Light indicator: LED yellow
- Power on indication: LED green
- Carrier frequency: 122 ... 123 GHz
- Bandwidth: 1 GHz
- Range resolution: 500 mm
- Hysteresis typ.: 40 mm
- Linearity error: ± 4 mm
- Modulation type: FMCW
- Transmitting power (EIRP): < +20 dBm
- Aperture angle: 6 °

**electrical data**
- Voltage supply range \(+Vs\): 15 ... 30 VDC
- Current consumption max. (no load): 210 mA
- Short circuit protection: yes
- Reverse polarity protection: yes, \(+Vs\) to GND
- Output circuit: current output / push-pull
- Output signal: 4 ... 20 mA / 20 ... 4 mA
- Output current: < 100 mA
- Switching output: push-pull
- Output function: NO / NC adjustable
- Voltage drop \( V_d \): < 2.5 VDC

**connection diagram**

**photo**

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**dimension drawing**

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<table>
<thead>
<tr>
<th>Mechanical data</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>type</td>
<td>cylindrical threaded</td>
</tr>
<tr>
<td>housing material</td>
<td>stainless steel 1.4404 (V4A)</td>
</tr>
<tr>
<td>width / diameter</td>
<td>30 mm</td>
</tr>
<tr>
<td>height / length</td>
<td>90 mm</td>
</tr>
<tr>
<td>connection types</td>
<td>connector M12</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Ambient conditions</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>operating temperature</td>
<td>-40 ... +65 °C</td>
</tr>
<tr>
<td>storage temperature</td>
<td>-40 ... +85 °C</td>
</tr>
<tr>
<td>protection class</td>
<td>IP 68/69K &amp; proTect+</td>
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</tbody>
</table>