



# OPR20G-RB417537

Glare

GLARE SENSORS

**SICK**  
Sensor Intelligence.



Illustration may differ



### Ordering information

Type	Part no.
OPR20G-RB417537	1068823

Other models and accessories → [www.sick.com/Glare](http://www.sick.com/Glare)

### Detailed technical data

#### Features

<b>Sensor principle</b>	Delta-S-Technology®
<b>Dimensions (W x H x D)</b>	42.5 mm x 44 mm x 43.4 mm
<b>Sensing distance</b>	≤ 50 mm
<b>Sensing distance tolerance</b>	± 5 mm
<b>Housing design</b>	Rectangular
<b>Tilt angle tolerance</b>	± 5°
<b>Minimum detectable object (MDO)</b>	12 x 14 mm
<b>Light source</b>	LED, Red <sup>1)</sup>
<b>Wave length</b>	640 nm
<b>Light spot size</b>	10 mm x 12 mm
<b>Object speed max.</b>	2 m/s <sup>2)</sup>
<b>Sensitivity</b>	Fine, middle, coarse
<b>Adjustment</b>	Potentiometer (Sensitivity (Q, Q/, teach-in)) <sup>3)</sup> Cable, IO-Link (Teach-in / Keylock) <sup>4)</sup> Single teach-in button (Teach-in)
<b>Teach-in mode</b>	Static 1-point teach-in Static 2-point teach-in Dynamic 2-point teach-in Static 3-point teach-in

<sup>1)</sup> Average service life: 100,000 h at T<sub>U</sub> = +25 °C.

<sup>2)</sup> Minimum object size.

<sup>3)</sup> HIGH = > V<sub>S</sub> - 2 V / LOW = open or < 2 V.

<sup>4)</sup> Default: keylock.

Mechanics/electronics

<b>Supply voltage</b>	10 V DC ... 30 V DC <sup>1)</sup>
<b>Ripple</b>	≤ 5 V <sub>pp</sub> <sup>2)</sup>
<b>Current consumption</b>	< 150 mA <sup>3)</sup>
<b>Switching frequency</b>	500 Hz <sup>4)</sup>
<b>Response time</b>	1 ms <sup>5)</sup>
<b>Jitter</b>	500 μs
<b>Number of switching outputs</b>	2 (Q <sub>1</sub> , Q <sub>2</sub> )
<b>Switching output</b>	Push-pull: PNP/NPN
<b>Switching output (voltage)</b>	Push-pull: PNP/NPN (High: V <sub>S</sub> - 3 V, Low: < 3 V)
<b>Output current I<sub>max</sub></b>	< 100 mA <sup>6)</sup>
<b>Initialization time</b>	< 2.5 s
<b>On delay</b>	0 s ... 30 s
<b>Off delay</b>	0 s ... 30 s
<b>Pulse duration</b>	≤ 30 s
<b>Connection type</b>	Male connector M12, 5-pin
<b>Circuit protection</b>	A <sup>7)</sup> C <sup>8)</sup> D <sup>9)</sup>
<b>Protection class</b>	III
<b>Enclosure rating</b>	IP67
<b>Weight</b>	130 g
<b>Housing material</b>	Plastic, ABS

<sup>1)</sup> Limit values when operated in short-circuit protected network: max. 8 A.

<sup>2)</sup> May not exceed or fall below U<sub>v</sub> tolerances.

<sup>3)</sup> Without load.

<sup>4)</sup> With light/dark ratio 1:1.

<sup>5)</sup> Signal transit time with resistive load.

<sup>6)</sup> Consumption count Q<sub>1</sub> / Q<sub>2</sub>.

<sup>7)</sup> A = V<sub>S</sub> connections reverse-polarity protected.

<sup>8)</sup> C = interference suppression.

<sup>9)</sup> D = outputs overcurrent and short-circuit protected.

Communication interface

<b>IO-Link</b>	✓
VendorID	26
DeviceID HEX	800058
DeviceID DEC	8388696
<b>Cycle time</b>	2.3 ms
<b>Process data structure</b>	Bit 0 = switching signal Q <sub>L1</sub> Bit 1 = switching signal Q <sub>L2</sub> Bit 2 = Quality of Run Alarm Bit 3 = Teach successful Bit 4 = Teach busy Bit 5 ... 15 = empty

















### Ambient data

<b>Ambient operating temperature</b>	-10 °C ... +55 °C
<b>Ambient temperature, storage</b>	-25 °C ... +75 °C
<b>Ambient light immunity</b>	> 50 klx
<b>Shock load</b>	According to EN 60068-2-27, single shock (30 g/11 MS), continuous shock (25 g/11 MS)
<b>UL File No.</b>	NRKH.E181493

### Classifications

<b>eCl@ss 5.0</b>	27270906
<b>eCl@ss 5.1.4</b>	27270906
<b>eCl@ss 6.0</b>	27270906
<b>eCl@ss 6.2</b>	27270906
<b>eCl@ss 7.0</b>	27270906
<b>eCl@ss 8.0</b>	27270906
<b>eCl@ss 8.1</b>	27270906
<b>eCl@ss 9.0</b>	27270906
<b>eCl@ss 10.0</b>	27270906
<b>eCl@ss 11.0</b>	27270906
<b>eCl@ss 12.0</b>	27270906
<b>ETIM 5.0</b>	EC001820
<b>ETIM 6.0</b>	EC001820
<b>ETIM 7.0</b>	EC001820
<b>ETIM 8.0</b>	EC001820
<b>UNSPSC 16.0901</b>	39121528



	Brief description	Type	Part no.
<b>Universal bar clamp systems</b>			
	Universal bar clamp for mounting bars with 12 mm diameter, zinc diecast, without mounting plate and screws	BEF-KHS-KH3	5322626
	Plate N11N for universal clamp bracket, Stainless steel 1.4571 (sheet), Stainless steel 1.4408 (clamp), Universal clamp BEF-KHS-KH3 (5322626), mounting hardware	BEF-KHS-N11N	2071081
	Mounting bar, straight, 200 mm, steel, steel, zinc coated, without mounting hardware	BEF-MS12G-A	4056054
	Mounting bar, straight, 300 mm, steel, steel, zinc coated, without mounting hardware	BEF-MS12G-B	4056055
	Mounting bar, L-shaped, 150 mm x 150 mm, steel, steel, zinc coated, without mounting hardware	BEF-MS12L-A	4056052
	Mounting bar, L-shaped, 250 x 250 mm, steel, steel, zinc coated, without mounting hardware	BEF-MS12L-B	4056053
	Mounting bar, Z-shaped, 150 mm x 70 mm x 150 mm, steel, steel, zinc coated, without mounting hardware	BEF-MS12Z-A	4056056
	Mounting bar, Z-shaped, 150 mm x 70 mm x 250 mm, steel, steel, zinc coated, without mounting hardware	BEF-MS12Z-B	4056057
	Bar clamp for bar diameter of 12 mm (fixing the mounting rod), Aluminum, 2 screws M6 x 30, 2 spring discs	BEF-RMC-D12	5321878
<b>Plug connectors and cables</b>			
	Head A: female connector, M12, 5-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 2 m	YF2A15-020VB5XLEAX	2096239
	Head A: female connector, M12, 5-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 5 m	YF2A15-050VB5XLEAX	2096240
	Head A: female connector, M12, 5-pin, angled, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 2 m	YG2A15-020VB5XLEAX	2096215
	Head A: female connector, M12, 5-pin, angled, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 5 m	YG2A15-050VB5XLEAX	2096216
	EtherCAT IO-Link Master, IO-Link V1.1, Port Class A, power supply via 7/8" cable 24 V / 8 A, fieldbus connection via M12 cable		On request
<b>Sensor Integration Gateway</b>			
	<ul style="list-style-type: none"> <li><b>Further functions:</b> Web server integrated, USB connection for easy configuration of the SIG200 Sensor Integration Gateway with SOPAS ET, the engineering tool from SICK, logic editor is available for easy configuration of logic functions</li> <li><b>Connection CONFIG:</b> 1 x M8, 4-pin female connector, USB 2.0 (USB-A)</li> <li><b>Logic editor:</b> yes</li> <li><b>Communication interface:</b> IO-Link, USB, Ethernet, PROFINET, REST API</li> <li><b>Product category:</b> IO-Link Master</li> </ul>	SIG200-0A0412200	1089794
	<ul style="list-style-type: none"> <li><b>Further functions:</b> Web server integrated, USB connection for easy configuration of the SIG200 Sensor Integration Gateway with SOPAS ET, the engineering tool from SICK, logic editor is available for easy configuration of logic functions</li> <li><b>Connection CONFIG:</b> 1 x M8, 4-pin female connector, USB 2.0 (USB-A)</li> <li><b>Logic editor:</b> yes</li> <li><b>Communication interface:</b> IO-Link, USB, Ethernet, REST API</li> <li><b>Product category:</b> IO-Link Master</li> </ul>	SIG200-0A0G12200	1102605

Recommended services

Additional services → [www.sick.com/Glare](http://www.sick.com/Glare)

	Type	Part no.
Function Block Factory		
<ul style="list-style-type: none"> <li><b>Description:</b> The Function Block Factory supports common programmable logic controllers (PLCs) from various manufacturers, such as Siemens, Beckhoff, Rockwell Automation and B&amp;R. More information on the FBF can be found <a _blank"="" href="https://fbf.cloud.sick.com target=">here</a>.</li> </ul>	Function Block Factory	On request

## SICK AT A GLANCE

SICK is one of the leading manufacturers of intelligent sensors and sensor solutions for industrial applications. A unique range of products and services creates the perfect basis for controlling processes securely and efficiently, protecting individuals from accidents and preventing damage to the environment.

We have extensive experience in a wide range of industries and understand their processes and requirements. With intelligent sensors, we can deliver exactly what our customers need. In application centers in Europe, Asia and North America, system solutions are tested and optimized in accordance with customer specifications. All this makes us a reliable supplier and development partner.

Comprehensive services complete our offering: SICK LifeTime Services provide support throughout the machine life cycle and ensure safety and productivity.

For us, that is “Sensor Intelligence.”

## WORLDWIDE PRESENCE:

Contacts and other locations –[www.sick.com](http://www.sick.com)