Sensor Array Bar (Polarized Retroreflective)

Datasheet

WARNING:
- Do not use this device for personnel protection
- Using this device for personnel protection could result in serious injury or death.
- This device does not include the self-checking redundant circuitry necessary to allow its use in personnel safety applications. A device failure or malfunction can cause either an energized (on) or de-energized (off) output condition.

Models

<table>
<thead>
<tr>
<th>Model</th>
<th>Beams</th>
<th>Supply Current</th>
<th>Range (BRT-THG-2 reflector tape)</th>
<th>Sensing Mode</th>
<th>Output</th>
<th>Connector</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAB-497RB1LP6-Q5E</td>
<td>6</td>
<td>150 mA</td>
<td>1 m (39 in)</td>
<td>Polarized Retroreflective, Visible Red 624 nm</td>
<td>Dark Operate, Bipolar</td>
<td>150 mm (6 in) PVC cable with a 4-pin M12/Euro-style quick disconnect</td>
</tr>
</tbody>
</table>

Wiring Diagram

![Wiring Diagram](image)

Key
1. Brown
2. White
3. Blue
4. Black

Specifications

Supply Voltage and Current
10 to 30 V dc (10% maximum ripple)

Supply Protection Circuitry
Protected against reverse polarity and transient voltages

Output Configuration
Solid-state Bipolar: NPN and PNP (current sinking and sourcing)
Rating: 100 mA maximum each output at 25 °C
Off-state leakage current:
- NPN: less than 200 μA at 30 V dc
- PNP: less than 10 μA at 30 V dc
ON-state saturation voltage:
- NPN: less than 1.8 V at 100 mA
- PNP: less than 3.0 V at 100 mA
Protected against false pulse on power-up and continuous overload or short circuit of outputs.

Sensing Beam
Polarized Retroreflective
Visible Red LED, 624 nm

Range
1 m (39 in) with BRT-THG-2 reflector tape

Output Response
1.5 ms on/off

Operating Conditions
-20 °C to +55 °C (−4 °F to +131°F)
85% at +50 °C maximum relative humidity (non-condensing)

Environmental Rating
IEC IP50

Indicators
- Green on: Power on
- Amber on: Output on
- Sensor Amber on: Light sensed

Original Document
205375 Rev. C

31 May 2019
## Dimensions

<table>
<thead>
<tr>
<th>Length</th>
<th>First Beam</th>
<th>Beam to Beam</th>
</tr>
</thead>
<tbody>
<tr>
<td>L1</td>
<td>L2</td>
<td>L3</td>
</tr>
<tr>
<td>496.3 mm (19.5 in)</td>
<td>42.0 mm (1.7 in)</td>
<td>82.6 mm (3.25 in)</td>
</tr>
</tbody>
</table>

## Brackets

**SMBSAB-IN**
- Mounting bracket facing in
- 12 gauge steel

**SMBSAB-OUT**
- Mounting bracket facing out
- 12 gauge steel

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