EZ-BEAM™ sensors

S30 series
dc operation

Wave length
- IR (infrared)
- Red
- 880 nm
- 950 nm (opposed)
- 680 nm

Supply
- Supply voltage
- Ripple $V_{pp}$
- No load current
- 10...30 V dc
- ≤ 10 %
- ≤ 25 mA
- ≤ 20 mA (receiver)
- ≤ 30 mA (polarised retro)
- ≤ 35 mA (background suppression)

Delay upon power up
- 100 ms

Protection
- reverse polarity
- short-circuit (pulsed)

Output
- Programmable
- (see wiring)
- Continuous load current
- Overload trip point
- Switching frequency
- light and dark operate
- or light operate and alarm
- ≤ 150 mA
- ≥ 220 mA typical at 20 °C
- ≤ 160 Hz

Material
- Housing
- Lens
- PBT
- acrylic
- Lexan® (PC) (opposed)
- IP67

Protection class
- (IEC 60529/EN 60529)
- -40...+70 °C
- 2 m, PVC, 4 x 0,5 mm²
- eurocon (M12 x 1)

Indicators
- LED's
- Yellow light sensed
- Green supply voltage
- Yellow flashing low gain
- Green flashing output overload
- light sensed
- supply voltage
- low gain
- output overload

Accessories

Brackets
- SMB30A 34 703 00 angle bracket
- SMB30SC 30 525 21 swivel mount bracket
- SMB30C 34 701 00 split clamp bracket

Connectors
- WAKE4-2/P00 80 070 46 straight type
- WWAKE4-2/P00 80 071 48 right-angled type
- WAKE4-2/P00 80 161 41 straight type, VA stainless, PVC
- WWAKE4-2/P00 80 119 24 right-angled type, VA stainless, PVC
- WAKE4-2/S90 80 177 14 straight type, VA stainless, PUR
- WWAKE4-2/S90 80 142 34 right-angled type, VA stainless, PUR

Wiring

- pnp complementary
- nnp complementary
- emitter
- pnp light op. + alarm
- nnp light op. + alarm
- *alarm

Dimensions [mm]

- Cable
  - M30x1,5
  - 53
  - 68,7
  - yellow LED
  - green LED
  - AF 36
  - 5 thick

- Connector
  - green LED
  - yellow LED
  - M12x1

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## S30 series

**dc operation**

Excess gain curve:
Excess gain in relation to the distance

<table>
<thead>
<tr>
<th>Max. range</th>
<th>Light source</th>
<th>Output function</th>
<th>Connection</th>
<th>Type</th>
<th>Ident number</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 m</td>
<td>red</td>
<td>pnp</td>
<td>cable</td>
<td>with polarising filter</td>
<td>S30SP6LP</td>
</tr>
<tr>
<td>6 m</td>
<td>red</td>
<td>pnp</td>
<td>connector</td>
<td>S30SP6LPQ</td>
<td></td>
</tr>
<tr>
<td>6 m</td>
<td>red</td>
<td>npn</td>
<td>cable</td>
<td>S30SN6LP</td>
<td></td>
</tr>
<tr>
<td>6 m</td>
<td>red</td>
<td>npn</td>
<td>connector</td>
<td>S30SN6LPQ</td>
<td></td>
</tr>
</tbody>
</table>

**Retro-reflective**

- 6 m red pnp cable
- 200 mm IR pnp connector
- 400 mm IR npn cable
- 200 mm IR npn connector
- 60 m IR (emitter) pnp connector
- 60 m IR (emitter) npn connector

**Fixed-field**

- 6 m red pnp cable
- 200 mm IR pnp connector
- 400 mm IR npn cable
- 200 mm IR npn connector
- 400 mm IR npn connector
- S30SN6FF200
- S30SN6FF200Q
- S30SN6FF400
- S30SN6FF400Q
- S30SN6FF200
- S30SN6FF200Q
- S30SN6FF400
- S30SN6FF400Q

**Opposed**

- 6 m red pnp cable
- 200 mm IR pnp connector
- 400 mm IR npn cable
- 200 mm IR npn connector
- 400 mm IR npn connector
- S30SN6FF200
- S30SN6FF200Q
- S30SN6FF400
- S30SN6FF400Q

**Note:**

These sensors do not include the self-checking redundant circuitry necessary to allow their use in personnel safety applications. A sensor failure or malfunction can result in either an energised or de-energised output condition. These products should not be used as sensing devices for personnel safety.