# S30AW3R
# Photoelectric Sensor  –   Opposed Mode Sensor (Receiver)
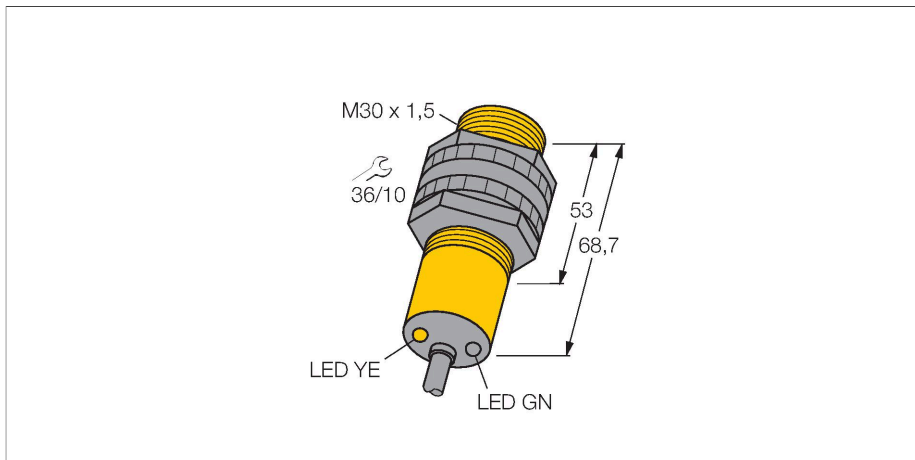


## Technical data

| Type | S30AW3R |
|---|---|
| ID no. | 3032340 |
| **Optical data** | |
| Function | Opposed mode sensor |
| Operating mode | Receiver |
| Range | 0…60000  mm |
| **Electrical data** | |
| Operating voltage | 20…250 VAC |
| AC rated operational current | ≤ 200 mA |
| Output function | Light operation, Relay output |
| Switching frequency | ≤ 40  Hz |
| Readiness delay | ≤ 100 ms |
| Response time typical | < 16  ms |
| **Mechanical data** | |
| Design | Threaded barrel, S30 |
| Dimensions | Ø 30 x 80.7  mm |
| Housing material | Plastic, Thermoplastic material |
| Lens | plastic, Acrylic |
| Electrical connection | Cable, 2  m, PVC |
| Number of cores | 3 |
| Ambient temperature | -40…+70  °C |
| Protection class | IP67 |
| Special features | Encapsulated |
| Power-on indication | LED, Green |
| Switching state | LED, Yellow |
| Excess gain indication | LED |

## Features

■ Cable, 2 m
■ Protection class IP67
■ Ambient temperature: -40…+70 °C

## Wiring diagram
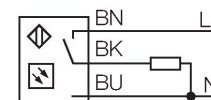


## Functional principle

Opposed mode sensors consist of an emitter and receiver. They are installed opposite each other so that the light from the emitter is aimed directly at the receiver. When an object interrupts or weakens the light beam, the sensor switches. Opposed mode sensors are the most reliable photoelectric sensors for detection of opaque targets. An excellent contrast between light and dark conditions and an extremly high excess gain are typical of this sensing mode, thus allowing operation over larger distances and under difficult conditions. Excess gain curve
Excess gain in relation to the distance
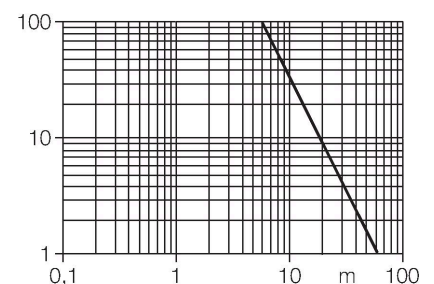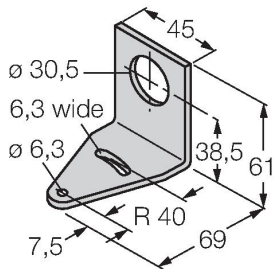
## Technical data

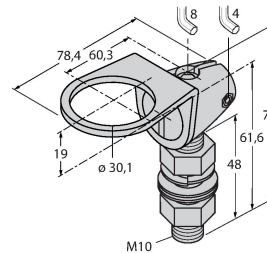| Tests/approvals | |
|---|---|
| Approvals | CE, UL, CSA |

## Accessories

| SMB30A | 3032723 |
|---|---|

Mounting bracket, rectangular, stainless steel, for sensors with 30mm thread
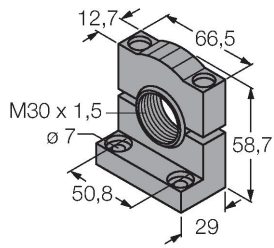
| SMB30FAM10 | 3011185 |
|---|---|

Mounting bracket, stainless steel, for M10 x 1.5 thread, thread length 30 mm

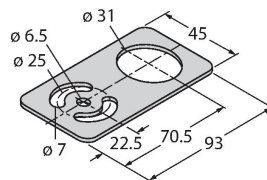| SMB30SC | 3052521 |
|---|---|

Mounting bracket, PBT black, for sensors with 30 mm thread, rotatable

| SMBAMS30P | 3073135 |
|---|---|

Mounting bracket, stainless steel, for sensors with 30 mm thread