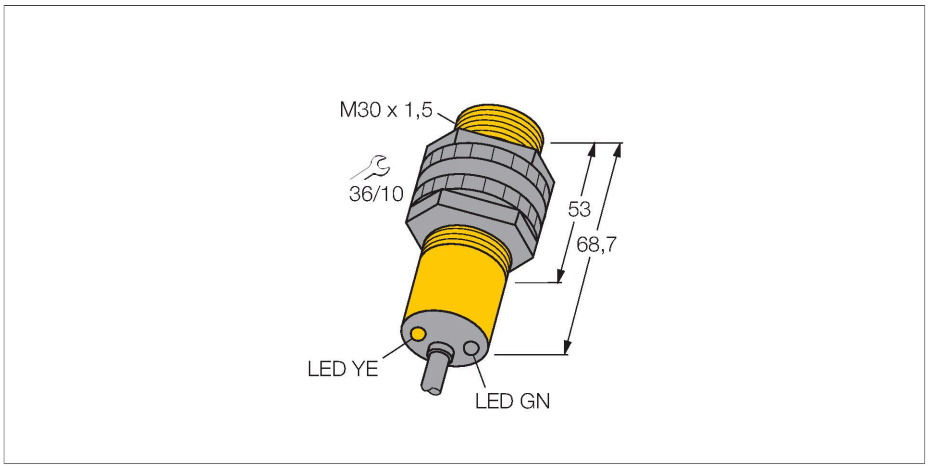
# S303E
# Photoelectric Sensor – Opposed Mode Sensor (Emitter)



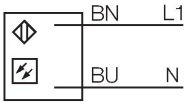

## Technical data

| | |
|---|---|
| Type | S303E |
| ID no. | 3032342 |
| **Optical data** | |
| Function | Opposed mode sensor |
| Operating mode | Emitter |
| Light type | IR |
| Wavelength | 950 nm |
| Range | 0…60000 mm |
| **Electrical data** | |
| Operating voltage | 20…250 VAC |
| Readiness delay | ≤ 100 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 | 2 |
| Ambient temperature | -40…+70 °C |
| Protection class | IP67 |
| Special features | Encapsulated |
| Power-on indication | LED, Green |
| Excess gain indication | LED |
| **Tests/approvals** | |
| Approvals | CE, UL, CSA |

## Features

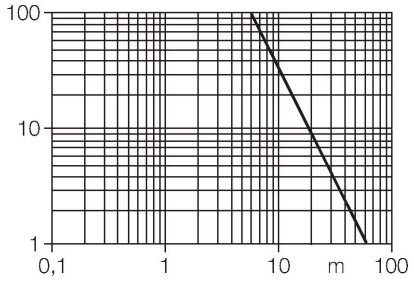
- Cable, 2 m
- Protection class IP67
- Ambient temperature: -40…+70 °C
- Operating voltage: 20…250 VAC

## Wiring diagram



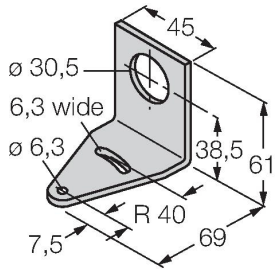

## Functional principle

Opposed mode sensors consist of an emitter and receiver. They are installed opposite to 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. The excellent light/dark contrast and the high excess gain allow operation over larger distances and under difficult conditions.
Excess gain curve
Excess gain in relation to the distance



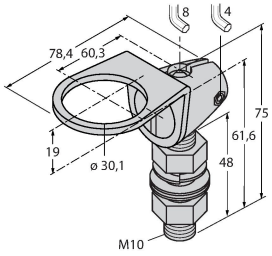
## Accessories

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



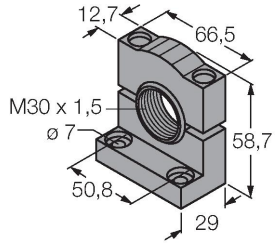

Mounting bracket, rectangular, stainless steel, for sensors with 30mm thread

| SMB30FAM10 | 3011185 |
|---|---|



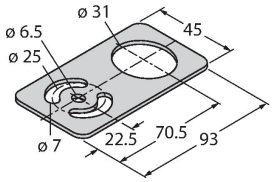

Mounting bracket, stainless steel, for M10 x 1.5 thread, thread length 30 mm

| 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