

# S30AW3LP

## Photoelectric Sensor – Retroreflective Sensor with Polarizing Filter

### Technical data

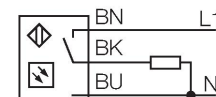
|                                |                                 |
|--------------------------------|---------------------------------|
| Type                           | S30AW3LP                        |
| ID                             | 3032328                         |
| <b>Optical data</b>            |                                 |
| Function                       | Retroreflective Sensor          |
| Operating mode                 | Polarized                       |
| Reflector included in delivery | no                              |
| Light type                     | Red polarized                   |
| Wavelength                     | 680 nm                          |
| Range                          | 50...6000 mm                    |
| <b>Electrical data</b>         |                                 |
| 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                         |
| <b>Mechanical data</b>         |                                 |
| Design                         | Tube, S30                       |
| Dimensions                     | Ø 30 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                             |
| <b>Tests/approvals</b>         |                                 |
| Approvals                      | CE, UL, CSA                     |



### Features

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

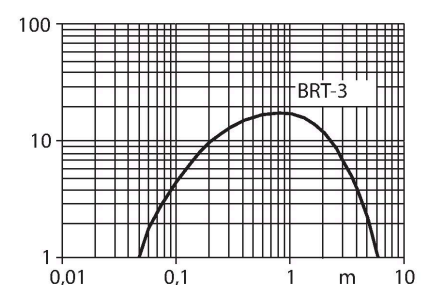
### Wiring diagram



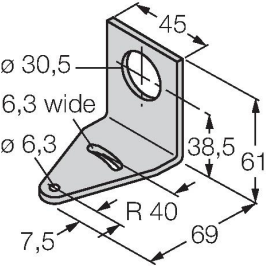
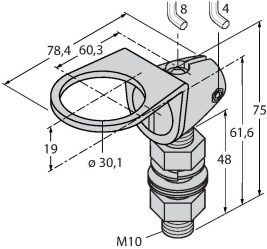
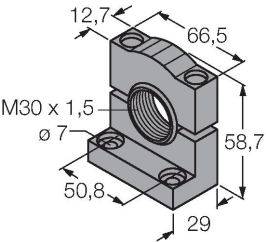
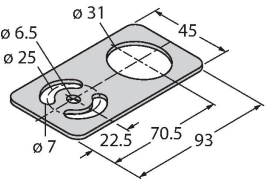
### Functional principle

Retro-reflective sensors incorporate emitter and receiver in a single compact housing. The light beam of the emitter is directed towards a reflector which returns the light back to the receiver. An object is detected when it interrupts this beam. Retro-reflective sensors have a high function gain and good contrast performance. Further it is merely required to install and wire a single device.

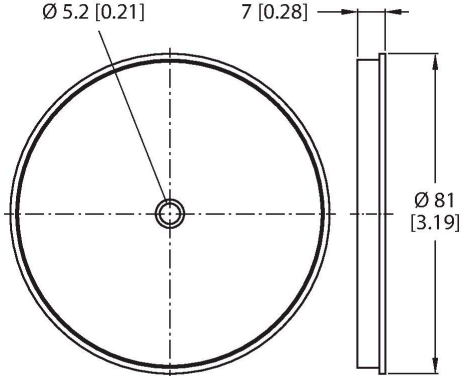
Excess gain curve  
Excess gain in relation to the distance



Accessories

|                   |                |                                                                                    |                                                                              |
|-------------------|----------------|------------------------------------------------------------------------------------|------------------------------------------------------------------------------|
| <b>SMB30A</b>     | <b>3032723</b> |   | Mounting bracket, rectangular, stainless steel, for sensors with 30mm thread |
| <b>SMB30FAM10</b> | <b>3011185</b> |  | Mounting bracket, stainless steel, for M10 x 1.5 thread, thread length 30 mm |
| <b>SMB30SC</b>    | <b>3052521</b> |   | Mounting bracket, PBT black, for sensors with 30 mm thread, rotatable        |
| <b>SMBAMS30P</b>  | <b>3073135</b> |  | Mounting bracket, stainless steel, for sensors with 30 mm thread             |

Accessories

| Dimension drawing                                                                   | Type  | ID      |                                                                                                 |
|-------------------------------------------------------------------------------------|-------|---------|-------------------------------------------------------------------------------------------------|
|  | BRT-3 | 3016164 | Round reflector, reflection coefficient 1.0, material acrylic, ambient temperature -20...+60 °C |