

# S18AW3LQ3

## Photoelectric Sensor – Retroreflective Sensor



### Technical data

|                                |                                 |
|--------------------------------|---------------------------------|
| Type                           | S18AW3LQ3                       |
| ID                             | 3036869                         |
| <b>Optical data</b>            |                                 |
| Function                       | Retroreflective Sensor          |
| Operating mode                 | Unpolarized                     |
| Reflector included in delivery | no                              |
| Light type                     | IR                              |
| Wavelength                     | 950 nm                          |
| Range                          | 50...2000 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, S18                       |
| Dimensions                     | Ø 18 x 78.7 mm                  |
| Housing material               | Plastic, Thermoplastic material |
| Lens                           | plastic, Acrylic                |
| Electrical connection          | Connector, M12 × 1, PVC         |
| Number of cores                | 5                               |
| Ambient temperature            | -40...+70 °C                    |
| Protection class               | IP67<br>IP69                    |
| Special features               | Encapsulated<br>Wash down       |

### Features

- M12 × 1 male connector, 4-pin
- Protection classes IP67/IP69K
- Ambient temperature: -40 °C...+70 °C
- Selectable light/dark operation or light operation with alarm function

### 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



