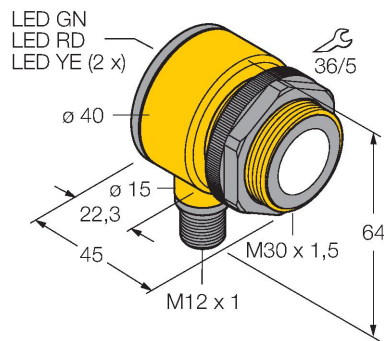


# T30UDPBQ-CRFV

## Ultrasonic Sensor – diffuse mode sensor With Switching Outputs



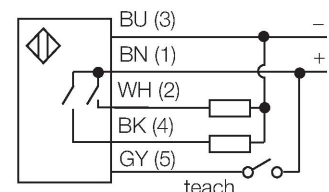
### Technical data

|                        |                                   |
|------------------------|-----------------------------------|
| Type                   | T30UDPBQ-CRFV                     |
| ID                     | 3075268                           |
| <b>Ultrasonic data</b> |                                   |
| Function               | Proximity switch                  |
| Range                  | 300...1000 mm                     |
| Ultrasound frequency   | 128 kHz                           |
| Repeatability          | ≤ ± 0.75 mm                       |
| Temperature drift      | ≤ 0.17 % of full scale/K          |
| <b>Electrical data</b> |                                   |
| Operating voltage      | 12...24 VDC                       |
| Response time typical  | < 96 ms                           |
| Output function        | 2 normally open contact, PNP      |
| Switching frequency    | ≤ 10 Hz                           |
| Hysteresis             | ≤ 2.5 mm                          |
| <b>Mechanical data</b> |                                   |
| Design                 | Tube, T30U                        |
| Radiation direction    | straight                          |
| Dimensions             | Ø 40 x 45 mm                      |
| Housing material       | Plastic, PBT                      |
| Transducer material    | Plastic, Epoxyd resin and PU foam |
| Electrical connection  | Connector, M12 × 1, PVC           |
| Ambient temperature    | -20...+70 °C                      |
| Relative humidity      | 100 %                             |
| Protection class       | IP67                              |
| Power-on indication    | LED                               |

### Features

- Compact design
- Connection via M12 x 1 male
- PTFE jacket
- Operating voltage 12...24 VDC
- Two PNP transistor outputs
- Two independent switching ranges adjustable via button or control line
- Blind zone: 30 cm
- Range: 200 cm

### Wiring diagram



### Functional principle

Ultrasonic sensors detect a multitude of objects contactless and wear-free with ultrasonic waves. Regardless of whether the object is transparent or opaque, metallic or non-metallic, liquid, solid or powdery. Even environmental conditions such as spray, dust or rain hardly affect their function.

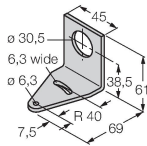
Technical data

|                 |                                           |
|-----------------|-------------------------------------------|
| Switching state | LED, Yellow                               |
| Object detected | LED                                       |
| Tests/approvals |                                           |
| MTTF            | 246 years acc. to SN 29500 (Ed. 99) 40 °C |
| Approvals       | CE                                        |

Accessories

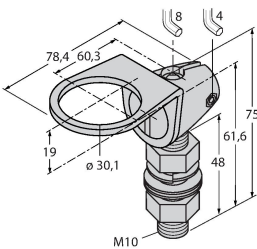
|        |         |
|--------|---------|
| SMB30A | 3032723 |
|--------|---------|

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



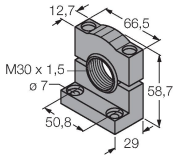
|            |         |
|------------|---------|
| SMB30FAM10 | 3011185 |
|------------|---------|

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



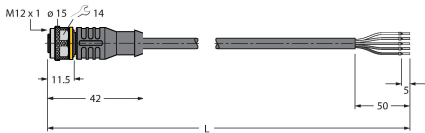
|         |         |
|---------|---------|
| SMB30SC | 3052521 |
|---------|---------|

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



Accessories

| Dimension drawing | Type          | ID      |                                                                                                                         |
|-------------------|---------------|---------|-------------------------------------------------------------------------------------------------------------------------|
|                   | RKC4.5T-2/TEL | 6625016 | Connection cable, M12 female connector, straight, 5-pin, cable length: 2 m, jacket material: PVC, black; cULus approval |



|  |               |         |                                                                                                                       |
|--|---------------|---------|-----------------------------------------------------------------------------------------------------------------------|
|  | WKC4.5T-2/TEL | 6625028 | Connection cable, M12 female connector, angled, 5-pin, cable length: 2 m, jacket material: PVC, black; cULus approval |
|--|---------------|---------|-----------------------------------------------------------------------------------------------------------------------|

