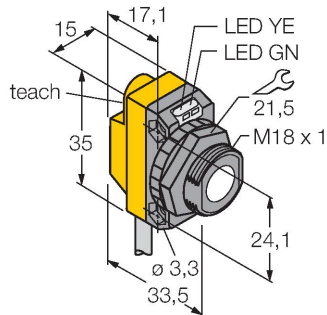


# QS18UPA W/30 Ultrasonic Sensor – diffuse mode sensor With Switching Output



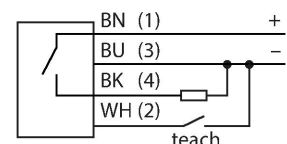
## Technical data

|                                      |                                |
|--------------------------------------|--------------------------------|
| Type                                 | QS18UPA W/30                   |
| ID                                   | 3074217                        |
| Ultrasonic data                      |                                |
| Function                             | Proximity switch               |
| Range                                | 50...500 mm                    |
| Ultrasound frequency                 | 300 kHz                        |
| Repeatability                        | ≤ ± 0.7 mm                     |
| Temperature drift                    | ≤ 0.1 % of full scale/K        |
| Edge lengths of the nominal actuator | 50 mm                          |
| Electrical data                      |                                |
| Operating voltage                    | 12...30 VDC                    |
| No-load current                      | ≤ 25 mA                        |
| Response time typical                | < 15 ms                        |
| Readiness delay                      | ≤ 300 ms                       |
| Output function                      | NO contact, PNP                |
| Switching frequency                  | ≤ 33 Hz                        |
| Hysteresis                           | ≤ 1.4 mm                       |
| Short-circuit protection             | yes                            |
| Reverse polarity protection          | Complete                       |
| Wire breakage protection             | yes                            |
| Mechanical data                      |                                |
| Design                               | Rectangular with thread, QS18U |
| Radiation direction                  | straight                       |
| Dimensions                           | 33.5 x 15 x 35 mm              |
| Housing material                     | Plastic, ABS                   |

## Features

- Operating voltage 12...30 VDC
- Compact design
- Cable, 2 m
- Switching range adjustable via teach-in
- Adjustable to retroreflective mode
- Blind zone: 5 cm
- Range: 50 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

|                       |                                           |
|-----------------------|-------------------------------------------|
| Transducer material   | Plastic, Epoxyd resin and PU foam         |
| Electrical connection | Cable, 9 m, PVC                           |
| Ambient temperature   | -20...+60 °C                              |
| Relative humidity     | 100 %                                     |
| Protection class      | IP67                                      |
| Power-on indication   | LED, Green                                |
| Switching state       | LED, Yellow                               |
| Object detected       | LED, Green                                |
| Tests/approvals       |                                           |
| MTTF                  | 165 years acc. to SN 29500 (Ed. 99) 40 °C |
| Approvals             | CE                                        |

Accessories

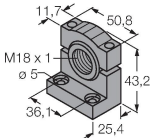
SMB18A 3033200

Mounting bracket, rectangular, stainless steel, for sensors with 18 mm thread



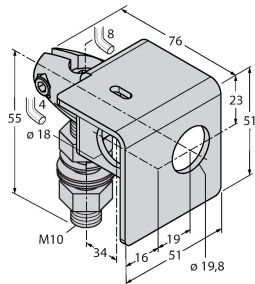
SMB18SF 3052519

Mounting bracket, PBT black, for sensors with 18 mm thread, rotatable



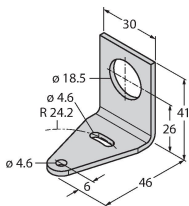
SMB18AFAM10 3012558

Mounting bracket, material VA 1.4401, for M10 x 1.5 thread, thread length 18 mm



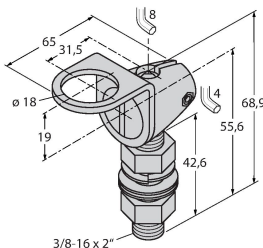
SMB18A MONTAGEHILFE 3470200

Mounting bracket, stainless steel, for sensors with 18 mm thread



SMB18FA 3074004

Mounting bracket, material VA 1.4401, for 18 mm thread, 3/8" - 16 x 2" thread



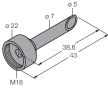
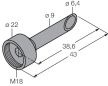
SMB18FM 3079421

mounting bracket, black, M22 x1.5 mm, male thread, female thread M18 x 1, for sensors with 18 mm thread

SMB18UR 3052517

Mounting bracket, for wall mounting, stainless steel 300, 2-piece, rotatable, 18 mm bore hole, srew set included

Accessories

| Dimension drawing                                                                 | Type      | ID      |                                                                           |
|-----------------------------------------------------------------------------------|-----------|---------|---------------------------------------------------------------------------|
|  | UWG18-5.0 | 3077342 | Ultrasonic focussing-adapter for QS18U and S18U, internal diameter 5.0 mm |
|  | UWG18-6.4 | 3076952 | Ultrasonic focussing-adapter for QS18U and S18U, internal diameter 6.4 mm |