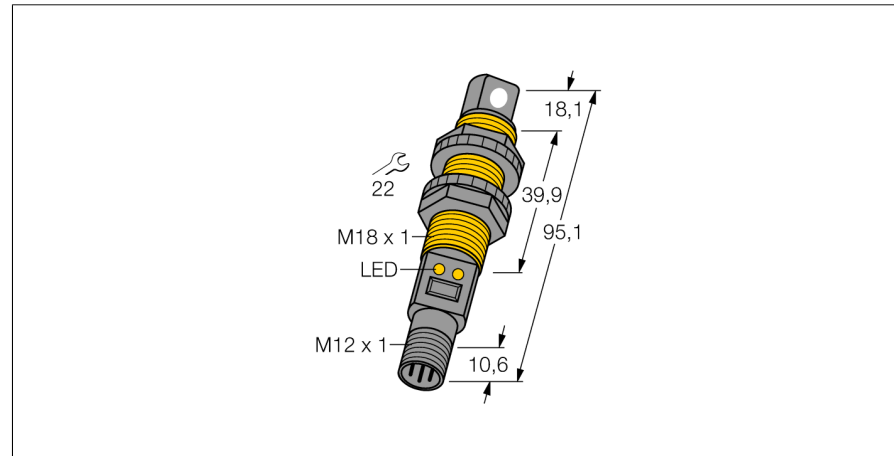
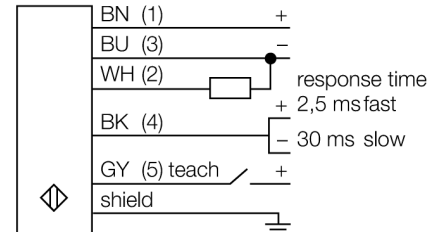


**Ultrasonic sensor  
diffuse mode sensor  
S18UIARQ**



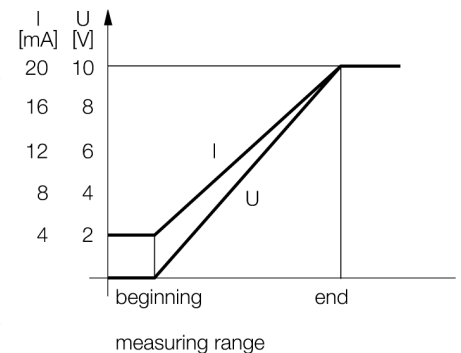
- Compact design
- Connection via male M12 x 1
- Temperature compensation
- Very small blind zone
- Measuring range adjustable via teach-in

**Wiring diagram**



**Functional principle**

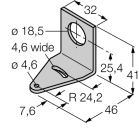
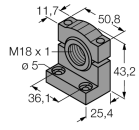
Ultrasonic sensors detect a multitude of objects contactless and wear-free with ultrasonic waves. Regardless of whether the object is transparent or opaque, metallic or non-metallic, liquid, solid or powdery. Even environmental conditions such as spray, dust or rain hardly affect their function.



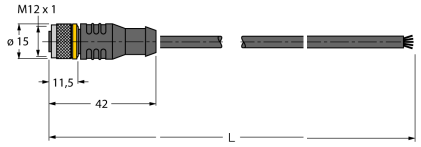
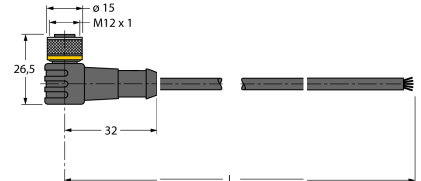
|                                      |                                 |
|--------------------------------------|---------------------------------|
| <b>Type code</b>                     | S18UIARQ                        |
| Ident no.                            | 3002709                         |
| <b>Design</b>                        | cylindrical/threaded, S18U      |
| Dimensions                           | Ø18 x 95,1 mm                   |
| Housing material                     | plastic, PBT                    |
| Connection                           | male, M12 x 1                   |
| Protection class                     | IP67                            |
| Ambient temperature                  | -20...+60 °C                    |
| MTTF                                 | 53 years                        |
| MTTF note                            | acc. to SN 29500 (Ed. 99) 40 °C |
| <b>Power-on indication</b>           | LED                             |
| Switching state                      | LED                             |
| <b>Operating voltage</b>             | 10...30VDC                      |
| No-load current I <sub>0</sub>       | ≤ 100 mA                        |
| Load resistance                      | ≤ 1000 Ω                        |
| Response time                        | 3 ms                            |
| Current output                       | 4...20mA                        |
| Short-circuit protection             | yes                             |
| Reverse polarity protection          | complete                        |
| Wire breakage protection             | yes                             |
| <b>Operating mode</b>                | diffuse mode ultrasonic sensor  |
| Range                                | 3...30 cm                       |
| Ultrasound frequency                 | 300 kHz                         |
| Repeatability                        | ≥ ± 0.25 mm                     |
| Edge lengths of the nominal actuator | 50 mm                           |

**Ultrasonic sensor  
diffuse mode sensor  
S18UIARQ**

**Accessories**

| Type code | Ident no. | Description   | Dimension drawing   |
|-----------|-----------|---|---|
| SMB18A    | 3033200   | Mounting bracket, stainless steel, for sensors with 18 mm thread  |  |
| SMB18FM   | 3079421   | mounting bracket, black, M22 x1.5 mm, male thread, female thread M18 x 1, for sensors with 18 mm thread |  |
| SMB18SF   | 3052519   | Mounting bracket, PTB black steel, for sensors with 18 mm thread  |   |

**Wiring accessories**

| Type code     | Ident no. | Description  | Dimension drawing   |
|---------------|-----------|--|---|
| RKC4.5T-2/TEL | 6625016   | Connection cable, female M12, straight, 5-pin, cable length: 2 m, sheath material: PVC, black; cULus approval; other cable lengths and qualities available, see <a href="http://www.turck.com">www.turck.com</a> |  |
| WKC4.5T-2/TEL | 6625028   | Connection cable, female M12, angled, 5-pin, cable length: 2 m, sheath material: PVC, black; cULus approval; other cable lengths and qualities available, see <a href="http://www.turck.com">www.turck.com</a>   |  |