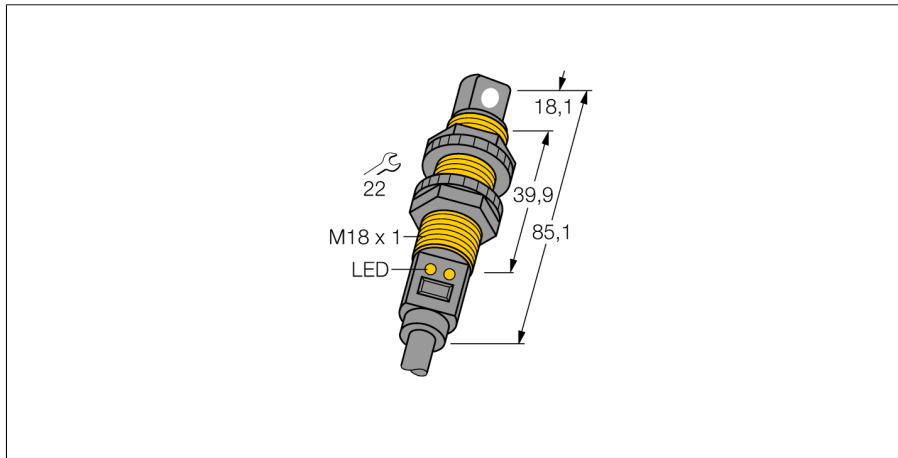
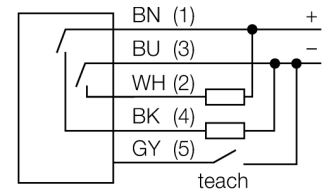


**Ultrasonic sensor
diffuse mode sensor
S18UBAR**



- Compact design
- Cable, 2 m
- Temperature compensation
- Very small blind zone
- Switching range adjustable via teach-in
- Adjustable to retroreflective mode

Wiring diagram



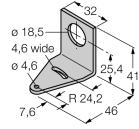
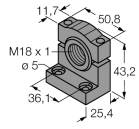
Functional principle

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.

Type code	S18UBAR
Ident no.	3002714
Design	cylindrical/threaded, S18U
Dimensions	Ø18 x 85.1 mm
Housing material	plastic, PBT
Connection	cable, 2
Protection class	IP67
Ambient temperature	-20...+60 °C
MTTF	53 years
MTTF note	acc. to SN 29500 (Ed. 99) 40 °C
Power-on indication	LED
Switching state	LED
Operating voltage	10...30VDC
No-load current I ₀	≤ 100 mA
Response time	5 ms
Output function	NO contact, PNP/NPN
Switching frequency	100 Hz
Hysteresis	≤ 0.7 mm
Short-circuit protection	yes
Reverse polarity protection	complete
Wire breakage protection	yes
Operating mode	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
S18UBAR**

Accessories

Type code	Ident no.	Description	Dimension drawing
SMB18A	3033200	Mounting bracket, stainless steel, for sensors with 18 mm thread	 <p>Technical drawing of the SMB18A mounting bracket. Dimensions include: top width 32, hole diameter $\phi 18.5$, bracket width 4.6, bottom hole diameter $\phi 4.6$, bottom hole offset 7.6, bottom hole radius R 24.2, total width 46, and total height 41.</p>
SMB18FM	3079421	mounting bracket, black, M22 x1.5 mm, male thread, female thread M18 x 1, for sensors with 18 mm thread	 <p>Technical drawing of the SMB18FM/SMB18SF mounting bracket. Dimensions include: top width 50.8, hole diameter $\phi 18$, bracket width 11.7, bottom hole diameter $\phi 5$, bottom hole offset 36.1, total width 36.1, and total height 43.2.</p>
SMB18SF	3052519	Mounting bracket, PTB black steel, for sensors with 18 mm thread	