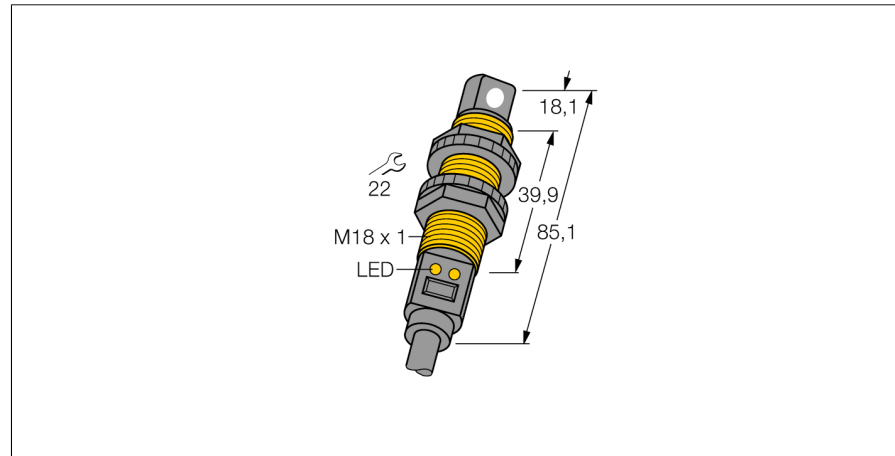
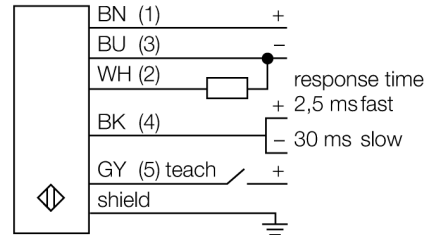


**Ultrasonic sensor  
diffuse mode sensor  
S18UIAR**



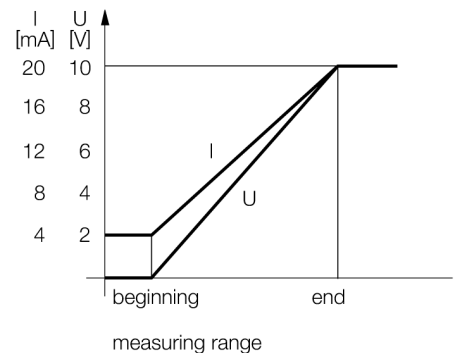
- Compact design
- Cable, 2 m
- Temperature compensation
- Very small blind zone
- Measuring range adjustable via teach-in

**Wiring diagram**



**Functional principle**

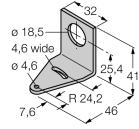
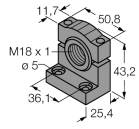
Ultrasonic sensors detect a multitude of objects contactless and wear-free with ultrasonic waves. Regardless of whether the object is transparent or opaque, metallic or non-metallic, liquid, solid or powdery. Even environmental conditions such as spray, dust or rain hardly affect their function.



<b>Type code</b>	S18UIAR
Ident no.	3002708
<b>Design</b>	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
<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  
S18UIAR**

**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 <math>\phi 18.5</math>, bracket width 4.6, bottom hole diameter <math>\phi 4.6</math>, bottom hole offset 7.6, bottom hole radius R 24.2, bottom hole diameter 4.6, 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	
SMB18SF	3052519	Mounting bracket, PTB black steel, for sensors with 18 mm thread	 <p>Technical drawing of the SMB18SF mounting bracket. Dimensions include: top width 11.7, total width 50.8, hole diameter <math>\phi 18</math>, hole offset 36.1, hole diameter <math>\phi 5</math>, and total height 43.2.</p>