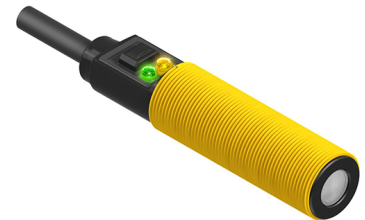
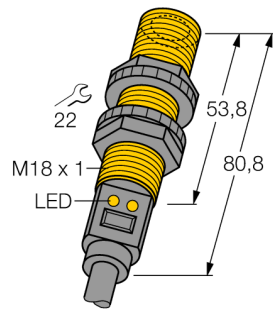


Ultrasonic Sensor diffuse mode sensor With Analog Output S18UIA W/30



Type	S18UIA W/30
ID	3002704

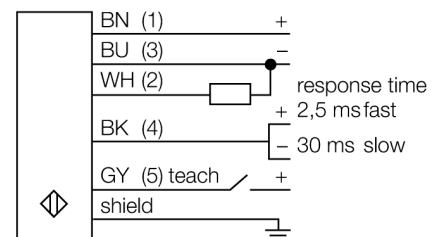
Ultrasonic data	
Function	Proximity switch
Range	30...300 mm
Ultrasound frequency	300 kHz
Repeatability	$\leq \pm 0.25$ mm
Temperature drift	$\pm 0.3\%$ of full scale% of full scale
Edge lengths of the nominal actuator	50 mm

Electrical data	
Operating voltage U_a	10...30 VDC
No-load current I_0	≤ 100 mA
Load resistance	$\leq 1000 \Omega$
Response time typical	< 2.5 ms
Readiness delay	≤ 300 ms
Current output	4...20 mA
Short-circuit protection	yes
Reverse polarity protection	Complete
Wire breakage protection	yes

Mechanical data	
Design	Tube, S18U
Radiation direction	straight
Dimensions	$\varnothing 18 \times 80.8$ mm
Housing material	Plastic, ABS/Polycarbonate
Transducer material	Plastic, Epoxyd resin and PU foam
Electrical connection	Cable, 9 m, PVC
Ambient temperature	-20...+60 °C
Storage temperature	-40...+80 °C
Protection class	IP67
Power-on indication	LED
Switching state	LED
Object detected	LED, Green

- Compact design
- Cable, 2 m
- Temperature compensation
- Very small blind zone
- Measuring range adjustable via teach-in
- Blind zone: 3 cm
- Range: 30 cm

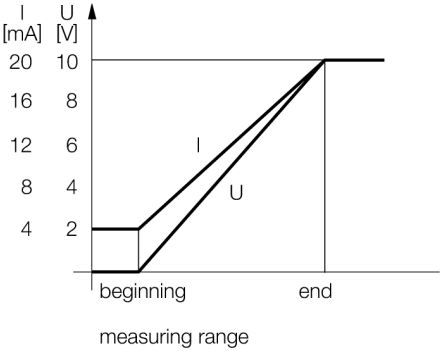
Wiring Diagram



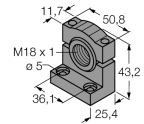
Functional principle

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.

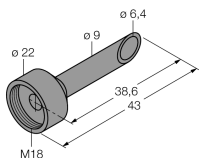
Tests/approvals	
MTTF	53 years acc. to SN 29500 (Ed. 99) 40 °C
Approvals	CE, cURus



Accessories

Type code	Ident no.		Dimension drawing
SMB18A	3033200	Mounting bracket, rectangular, stainless steel, for sensors with 18 mm thread	
SMB18FM	3079421	mounting bracket, black, M22 x 1.5 mm, male thread, female thread M18 x 1, for sensors with 18 mm thread	
SMB18SF	3052519	Mounting bracket, PBT black, for sensors with 18 mm thread, rotatable	

Function accessories

Type code	Ident no.		Dimension drawing
UWG18-6.4	3076952	Ultrasonic focussing-adapter for QS18U and S18U, internal diameter 6.4 mm	
UWG18-5.0	3077342	Ultrasonic focussing-adapter for QS18U and S18U, internal diameter 5.0 mm	