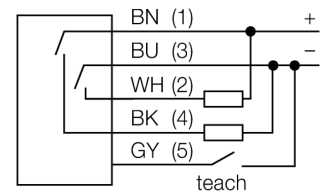


**ultrasonic sensor
diffuse mode sensor
S18UBAQ**

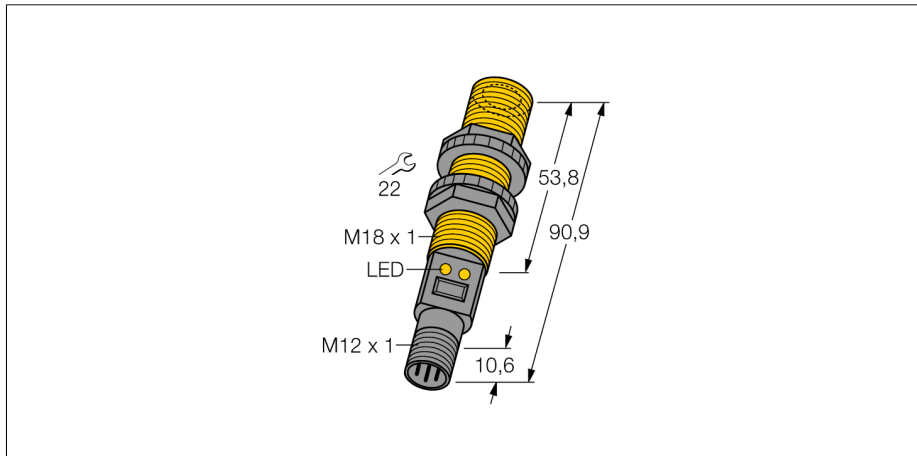
- compact housing style
- connection via M12 x 1 connector
- temperature compensation
- very small blind zone
- switching range adjustable via teach-in
- adjustable retro-reflective mode

Wiring diagram



Functional principle

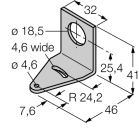
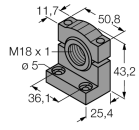
Ultrasonic sensors use ultrasonic waves for non-contact and wear-free detection of many objects. Regardless of whether the object is transparent or opaque, metallic or non-metallic, or of liquid, solid or powdery consistency. Even environmental conditions such as spray, dust or rain hardly affect their function.



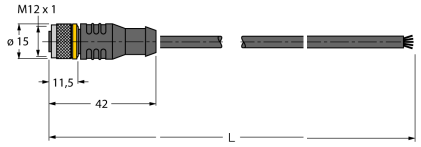
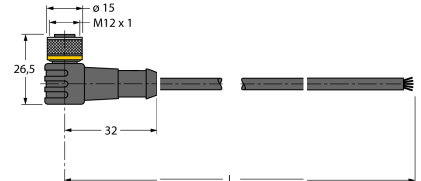
Type code	S18UBAQ
Ident no.	3002712
Design	cylindrical/threaded, S18U
Dimensions	Ø18x 90.9 mm
Housing material	Plastic, PBT
Connection	male, M12 x 1
Protection class	IP67
Ambient temperature	-20...+60 °C
Operating voltage	LED
Switching state	•
Operating voltage	10...30VDC
No-load current I_0	≤ 100 mA
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
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
S18UBAQ

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 www.turck.com	
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 www.turck.com	

ultrasonic sensor
diffuse mode sensor
S18UBAQ

TURCK

Industrial
Automation

Function accessories

Type code	Ident no.	Description	Dimension drawing
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	