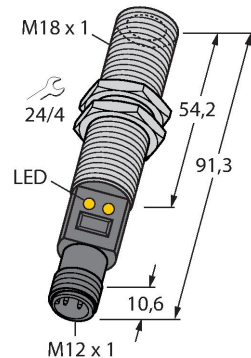


M18TB8Q

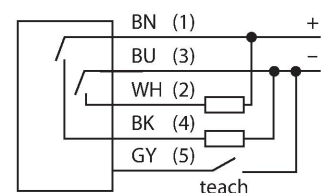
Temperature sensor – Infrared sensor



Features

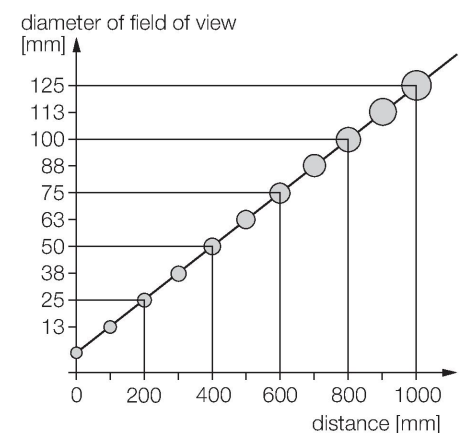
- connection via M12 x 1 connector
- D:S ratio 8:1
- Operating voltage 10...30 VDC
- Switchpoint adjustable via teach-in
- Temperature range 0...300°C

Wiring diagram



Functional principle

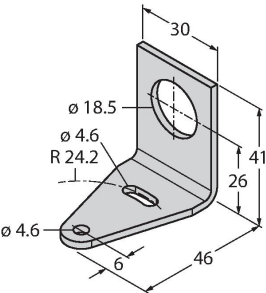
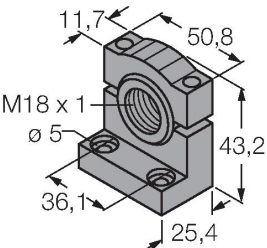
Temperature sensors are used in applications where temperatures for control and optimisation of processes must be captured and monitored. The sensor operates only as a receiver. The thermal radiation of an object within a wave length range of 8 to 14 µm is transformed into an electrical signal via a thermopile and then further processed to become an output signal. Here the D:S (distance: spot) ratio is very important because it specifies the diameter of the spot at a defined distance. The sensor is optimally aligned, if the spot is completely covered by the object, whose temperature is to be monitored.



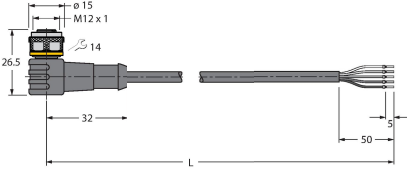
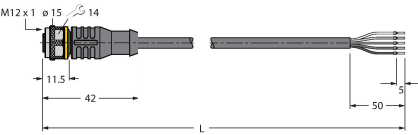
Technical data

Type	M18TB8Q
ID no.	3073646
Measuring range	0...300 °C
Temperature operating range	-4...158 °F
Factory setting	-20...280 °C
	-4...536 °F
Response time	25 ms
Operating voltage	10...30 VDC
Short-circuit/reverse polarity protection	yes / Cyclic / yes
Protection type and class	IP67
Output 1	Switching output
Switching output	
Output function	NO contact, PNP/NPN
Switching current	≤ 100 mA
Switching frequency	≤ 20 Hz
Response time typical	< 25 ms
Ambient temperature	-20...+70 °C
Storage temperature	-20...+70 °C
Housing	
Housing material	Stainless steel, 1.4301 (AISI 304), Grey
Process connection	M18 × 1
Electrical connection	Connectors, M12 × 1
Switching state	LED, Yellow
Included in delivery	2 M18 × 1 metal hexagon nuts

Accessories

SMB18A	3033200		Mounting bracket, rectangular, stainless steel, for sensors with 18 mm thread
SMB18SF	3052519		Mounting bracket, PBT black, for sensors with 18 mm thread, rotatable
SMB18UR	3052517		Mounting bracket, for wall mounting, stainless steel 300, 2-piece, rotatable, 18 mm bore hole, screw set included
LAT1812	3074262		Laser alignment aid, visible red, contains M12 laser emitter (laser class 2) and mounting bracket SMB1812, for sensors with 18 mm thread, 10 ... 30 VDC supply necessary

Accessories

Dimension drawing	Type	ID no.	
	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
	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