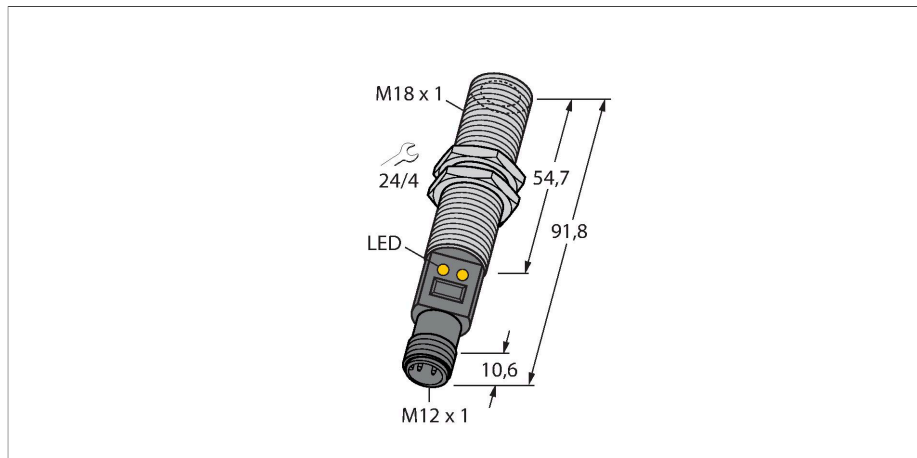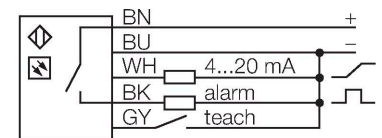# M18TIP6EQ
Temperature sensor –   Infrared sensor

Features

- connection via M12 x 1 connector
- D:S ratio 6:1
- Operating voltage 12…30 VDC
- Measuring range adjustable via teach-in
- Analog output 4..20 mA
- PNP Alarm output switches at 20 mA
- Temperature range 0 … +300 °C
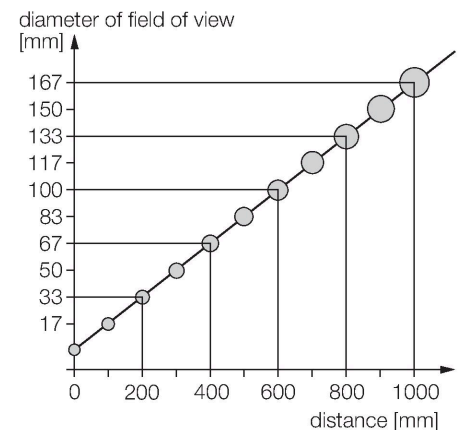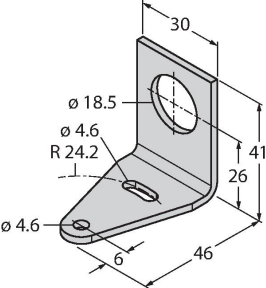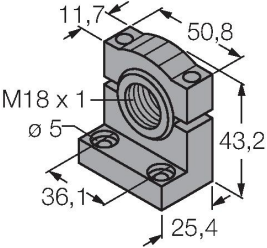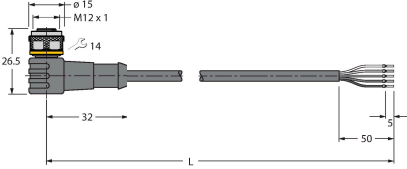
Wiring diagram
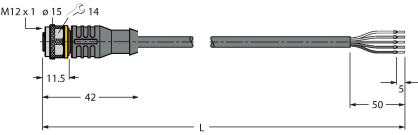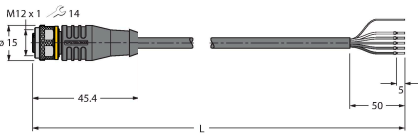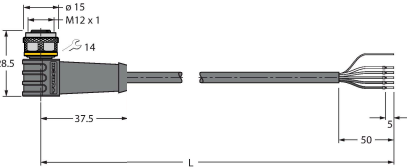

Functional principle

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	M18TIP6EQ
ID no.	3078465
Measuring range	0…300 °C
Temperature operating range	-4…158 °F
Factory setting	-20…280 °C
	-4…536 °F
Response time	75 ms
Operating voltage	12…30 VDC
Short-circuit/reverse polarity protection	yes / Cyclic / yes
Protection type and class	IP67
Output 1	Analog output
Output 2	switching output
Output function	NO contact, PNP/Analog output
Current output	4…20 mA
Response time typical	< 75 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

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M18TIP6EQ | 26-05-2021 19-15 | Technical modifications reserved

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, srew 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
	RKS4.5T-2/TEL	6626361	Connection cable, M12 female connector, straight, 5-pin, cable length: 2 m, sheath material: PVC, black; shielded; cULus approval; other cable lengths and qualities available, see www.turck.com
	WKS4.5T-2/TEL	6626364	Connection cable, M12 female connector, angled, 5-pin, cable length: 2 m, sheath material: PVC, black; shielded; cULus approval; other cable lengths and qualities available, see www.turck.com