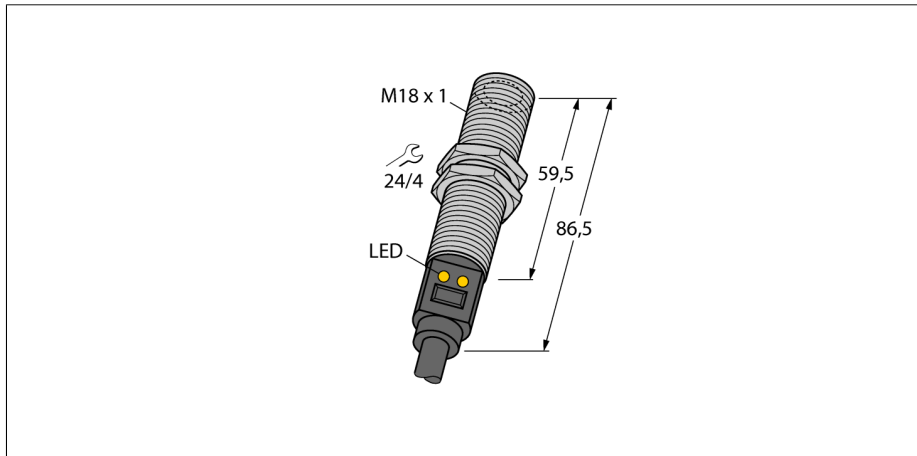


temperature sensors
infrared sensor
M18TUP14

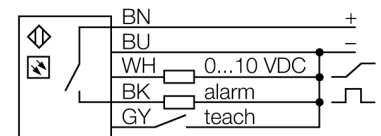
TURCK

Industrial
Automation



- connection via cable, 2 m
- D:S ratio 14:1
- Operating voltage 12...30 VDC
- Measuring range adjustable via teach-in
- Analog output 0...10 V
- PNP Alarm output switches at 10 V
- Temperature range 0 ... +300 °C

Wiring diagram



Type code	M18TUP14
Ident no.	3074921
Operating mode	infrared sensor
Ambient temperature	-20...+70 °C
Temperature operating range	≥0...≤300 °C
Switching point accuracy	± 0.5 °C
Operating voltage	12...30VDC
Short-circuit protection	yes/ cyclic
Reverse polarity protection	yes
Output function	NO contact, PNP/analog output
Voltage output	0...10V
Readiness delay	≤ 1.5 s
Design	cylindrical/threaded, M18T
Dimensions	86.5 mm
Housing material	Stainless steel, V2A (1.4301)
Lens	semi-metal, Germanium
Connection	cable
Cable length	2 m
Cable cross section	5 x 0.5 mm ²
Protection class	IP67
Operating voltage	LED green
Switching state	● yellow

Functional principle

Temperature sensors are used everywhere where temperatures for control and optimisation of processes must be detected 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 conditioned as an output signal. The D:S (distance: spot) ratio, which specifies the measuring field diameter at a defined distance, is important in this context. Complete coverage of this field through the target surface, whose temperature is to be monitored, is the optimal configuration.

D:S ratio

