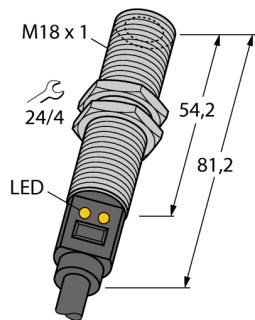
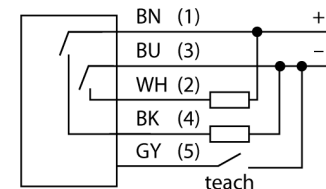


# Temperature sensor Passive Infrared Sensor With Switching Output M18TB8 W/30



- Connection via cable, 2 m
- D:S ratio 8:1
- Operating voltage 10...30 VDC
- Switching point adjustable via teach-in
- Temperature measuring range 0...300 °C

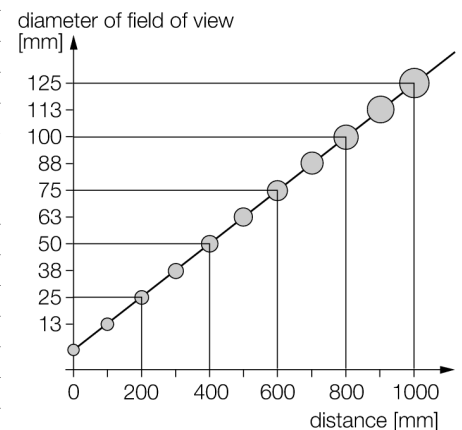
## Wiring Diagram



## Functional principle

Temperature sensors are used in applications where temperatures for control and optimization 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  $\mu\text{m}$  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.

## D:S Ratio



Type	M18TB8 W/30
ID	3073647
General data	
Function	Proximity switch
D:S ratio	8:1
Measuring range	0...300 °C
	-4...158 °F
Factory setting	-20...280 °C
	-4...536 °F
Electrical data	
Operating voltage $U_o$	10...30 VDC
DC rated operating current $I_o$	$\leq 100 \text{ mA}$
No-load current $I_o$	$\leq 35 \text{ mA}$
Short-circuit protection	yes/Cyclic
Reverse polarity protection	yes
Output function	NO contact, PNP/NPN
Switching frequency	$\leq 20 \text{ Hz}$
Readiness delay	$\leq 1.5 \text{ s}$
Readiness delay	$\leq 1500 \text{ ms}$
Response time typical	$< 25 \text{ ms}$
Mechanical data	
Design	Tube, M18T
Dimensions	$\varnothing 18 \times 81.2 \text{ mm}$
Thread length	54.2 mm
Housing material	Metal, Stainless steel, Grey
Lens	plastic
Electrical connection	Cable, 9 m, PVC
Number of cores	5
Core cross-section	0.5 mm <sup>2</sup>
Process connection	M18 x 1
Ambient temperature	-20...+70 °C
Storage temperature	-25...+75 °C
Protection class	IP67

Power-on indication	LED, Green
Switching state	LED, Yellow
Included in delivery	2 M18 × 1 metal hexagon nuts
Tests/approvals	
Approvals	CE