

## Infrared sensors M18T



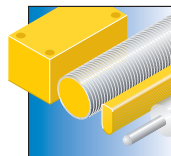
The sensors of the M18T series are essentially passive receivers and operate contactless. The thermal radiation of an object between 8 and 14  $\mu\text{m}$  is transformed into an electrical signal in a thermopile and then converted into an output signal. The distance-spot ratio D:S, specifying the spot size at a defined distance is important in this context. To monitor the surface temperature of the object optimally, this field should be covered completely by the object.

Available are devices with switching output (NO/ PNP) or with analog voltage output 0...10 V. Easy teaching of measuring range or switchpoint.

### Features

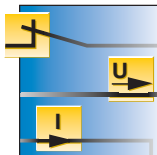
- Temperature range 0...+300 °C
- DS-ratio 6:1, 8:1 and 14:1
- Teaching via pushbutton or cable
- Switching PNP/NPN or analog output 0...10 V
- Version with analog output: PNP-alarm output signals end of measuring range at 10 V
- 2 m connection cable or M12 x 1 plug connection

### Properties



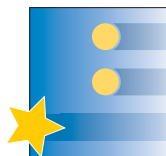
#### Design

Threaded barrel M18 x 1, stainless steel V2A, length 81.2 ... 96.6 mm



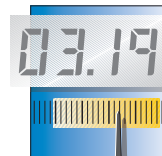
#### Electrical versions

5-wire DC with switching output (PNP/NO) or analog voltage output 0...10 V



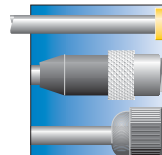
#### Special features

Sensors for different object sizes, spots and distances; distance-spot ration (D:S) 6:1, 8:1, 14:1



#### Measuring ranges

Detection of temperature changes between 0 ...+ 300 °C



#### Electrical connections

Connection cable 2 m (5 x 0.5 mm<sup>2</sup>) or 5-pole M12 x 1 plug connection

## M18T – Switching output



### General data

<b>Temperature operating range</b>	0...300 °C
<b>Switching point accuracy</b>	0.5 °C
<b>Operating voltage</b>	10...30 VDC
<b>Switching frequency</b>	20 Hz
<b>Short-circuit protection</b>	yes / cyclic

<b>Reverse polarity protection</b>	yes
<b>Output function</b>	—, pnp/npn
<b>Protection class</b>	IP67
<b>Housing material</b>	stainless steel, V2A (1.4301)

### Types and data – selection table

Type	Electrical connection	Cable quality	Cable cross section	w	d	e
M18TB6E	cable	PVC, 2 m	5 x 0.5 mm <sup>2</sup>	w107	d498	e096
M18TB6EQ	connector, M12 x 1	-	-	w107	d499	e096
M18TB8	cable	PVC, 2 m	5 x 0.5 mm <sup>2</sup>	w107	d500	e097
M18TB8Q	connector, M12 x 1	-	-	w107	d501	e097
M18TB14	cable	PVC, 2 m	5 x 0.5 mm <sup>2</sup>	w107	d502	e098
M18TB14Q	connector, M12 x 1	-	-	w107	d503	e098

## M18T – Analog voltage output



### General data

<b>Temperature operating range</b>	0...300 °C
<b>Switching point accuracy</b>	0.5 °C
<b>Operating voltage</b>	10...30 VDC
<b>Switching frequency</b>	20 Hz
<b>Voltage output</b>	0...10 V

<b>Short-circuit protection</b>	yes / cyclic
<b>Reverse polarity protection</b>	yes
<b>Output function</b>	—, PNP/analog output
<b>Protection class</b>	IP67
<b>Housing material</b>	stainless steel, V2A (1.4301)

### Types and data – selection table

Type	Electrical connection	Cable quality	Cable cross section	w	d	e
M18TUP8	cable	PVC, 2 m	5 x 0.5 mm <sup>2</sup>	w107	d500	e097
M18TUP8Q	connector, M12 x 1	-	-	w107	d501	e097
M18TUP6E	cable	PVC, 2 m	5 x 0.5 mm <sup>2</sup>	w107	d498	e096
M18TUP6EQ	connector, M12 x 1	-	-	w107	d499	e096
M18TUP14	cable	PVC, 2 m	5 x 0.5 mm <sup>2</sup>	w107	d502	e098
M18TUP14Q	connector, M12 x 1	-	-	w107	d503	e098

