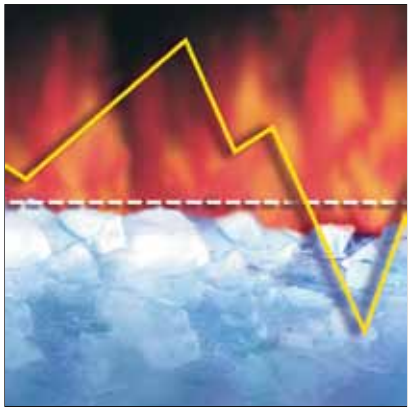
Temperature sensors – M18T series



Resistant infrared sensors

Infrared sensors of the M18T series detect heat contactless in a range between 0…+300 °C. The sensors operate as receivers and the objects are the heat emitting sources. The thermal radiation of an object, normally between 8 and 14 µm, is transformed into an electrical signal by a thermopile and then converted into an output signal.
No matter which device you use, the switchpoint as well as the measuring range are easily taught.

Non-contact detection of temperature

The rugged MT18 infrared sensors monitor hot objects such as bakery products, metals or bottles. They also monitor flame brazing, blasting or straightening processes and also hot glueing applied in packaging stations, book binding and product assembly.

- Temperature range 0…+300 °C
- Versions with analog output 0…10 V or switching output
- Easy teaching of measuring range or swichtpoint.
- Compact and rugged stainless steel housing for harsh environments

Infrared sensors M18T

The non-contact sensors of the M18T series are mainly passive receivers. The thermal radiation of an object, normally between 8 and 14 µm, is transformed into an electrical signal in a thermopile and then converted into an output signal. The D:S (distance: spot) ratio, which specifies the spot diameter at a defined distance, is important in this context. To monitor the surface temperature of the object optimally, the spot 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 swichtpoint.

Features

- Temperature range 0…+300 °C
- DS-ratio 6:1, 8:1 and 14:1
- Teaching via pushbutton or cable
- Switching output PNP/NPN or analog output 0…10 V/4…20 mA
- Version with analog output: PNP-alarm outputs 10 V/20 mA when reaching the end of the measuring range
- 2 m connection cable or male M12 x 1

Type code M18T

M18T B 8 Q

M18T Design

Design

M18T cylinder, smooth
59.2 x 18 mm
65 x 18 mm
78 x 18 mm
83.8 x 18 mm

B Electrical output

Electrical output

B PNP/NPN
UP U_o = 0…10V
alarm output, PNP

8 Special functions

Special functions

8 distance - spot ratio

Q Electrical connection

Electrical connection

Q connector, M12 x 1.5-pole

M18T – Switching output/analog output

General data

Protection class	IP67	**Connection**	male, M12 x 1
Temperature operating range	0…300 °C	**Housing material**	V2A (1.4301)
Ambient temperature	-20…+70 °C	**Function**	infrared sensor

Types and data – selection table

Type	Operating voltage	Output	D:S ratio	w	d
M18TB8Q	10…30 VDC	_⌒_, PNP/NPN	8:1	w173	d658
M18TB6EQ	10…30 VDC	_⌒_, PNP/NPN	6:1	w173	d659
M18TB14Q	10…30 VDC	_⌒_, PNP/NPN	14:1	w173	d660
M18TIP8Q	12…30 VDC	_⌒_, PNP/analog output, 4…20 mA	8:1	w174	d658
M18TIP6EQ	12…30 VDC	_⌒_, PNP/analog output, 4…20 mA	6:1	w174	d659
M18TIP14Q	12…30 VDC	_⌒_, PNP/analog output, 4…20 mA	14:1	w174	d660
M18TUP8Q	12…30 VDC	_⌒_, PNP/analog output, 0…10 V	8:1	w175	d658
M18TUP6EQ	12…30 VDC	_⌒_, PNP/analog output, 0…10 V	6:1	w175	d659
M18TUP14Q	12…30 VDC	_⌒_, PNP/analog output, 0…10 V	14:1	w175	d660

Many different types available, also with cable, see type code