

# Temperature sensors & switches

## **MOTOMETER**



### **MOTOMETER Temperature sensor**

MOTOMETER temperature sensors have a NTC resistor, that records the temperature of oil, water or air and forwards the measurement result to a temperature display. Brass casings are used, along with a special gel in the sensor housing, for the fast transfer of the detected temperature with little loss.

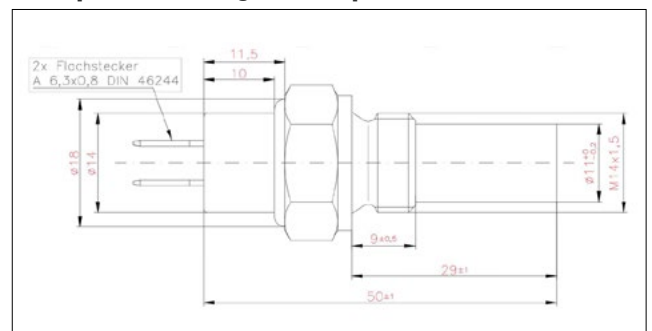
Operation is possible with 12 Volt or 24 Volt on-board supply system. The temperature range is between 40 °C and 120 °C or between 50°C and 150°C, depending on the type.

In addition to the listed standard temperature sensors, we can also offer you customised solutions.

### **The following temperature sensors are available:**

- Temperature sensor (40 °C – 120 °C)
- Temperature sensor (50 °C – 150 °C)
- Temperature sensor with warning contact
- Temperature switch

### **Example: A drawing of a temperature sensor**



### **Special wishes? We deliver customized solutions!**

In addition to the standard temperature sensors listed, we can also offer you customized specific solutions. Simply contact us with your requirements via the adjacent button:

# Temperature sensors & switches

## MOTOMETER

### Temperature sensors (40 °C - 120 °C)

The resistance characteristic is identical for all sensors

60 °C	134,0 Ohm
90°C	51,2 Ohm
100°C	38,5 Ohm

Compatible with MOTOMETER temperature displays

641 011 xxxx
641 012 xxxx

Thread	Connection	Install. depth	Feature	Measuring range	Voltage	Art. Nr.
M10 x 1 K	A 6,3 x 0,8	10,5 mm	-	40 - 120 °C	6 - 24 Volt	<a href="#">642 007 1015</a>
-	3m cable	15,5 mm	-	40 - 120 °C	6 - 24 Volt	<a href="#">642 013 1007</a>
M14 x 1,5	ø 4mm	24 mm	-	40 - 120 °C	6 - 24 Volt	<a href="#">642 007 1018</a>
M14 x 1,5	Thread M4	29 mm	-	40 - 120 °C	6 - 24 Volt	<a href="#">642 007 1001</a>
M14 x 1,5	A 6,3 x 0,8	29 mm	-	40 - 120 °C	6 - 24 Volt	<a href="#">642 007 1006</a>
M14 x 1,5	A 6,3 x 0,8	29 mm	ground isolated	40 - 120 °C	6 - 24 Volt	<a href="#">642 011 1001</a>
M16 x 1,5	A 6,3 x 0,8	29 mm	-	40 - 120 °C	6 - 24 Volt	<a href="#">642 007 1021</a>
1/2"-14 NPTF	A 6,3 x 0,8	29 mm	-	40 - 120 °C	6 - 24 Volt	<a href="#">642 007 1009</a>
1/2"-14 NPTF	A 6,3 x 0,8	29 mm	ground isolated	40 - 120 °C	6 - 24 Volt	<a href="#">642 011 1004</a>

### Temperature sensors (50 °C - 150 °C)

The resistance characteristic is identical for all sensors

60 °C	221,2 Ohm
90°C	83,0 Ohm
120°C	36,5 Ohm

Compatible with MOTOMETER temperature displays

641 011 xxxx
641 012 xxxx

Thread	Connection	Install. depth	Connection characteristic	Measuring range	Voltage	Art. Nr.
M14 x 1,5	A 6,3 x 0,8	15 mm	vertical	50 - 150 °C	6 - 24 Volt	<a href="#">642 009 1002</a>
M14 x 1,5	A 6,3 x 0,8	30 mm	straight	50 - 150 °C	6 - 24 Volt	<a href="#">642 009 1021</a>
M14 x 1,5	A 6,3 x 0,8	30 mm	straight, ground isolated	50 - 150 °C	6 - 24 Volt	<a href="#">642 012 1001</a>
1/2"-14 NTPF	A 6,3 x 0,8	30 mm	straight	50 - 150 °C	6 - 24 Volt	<a href="#">642 009 1019</a>
3/8"-18 NTPF	A 6,3 x 0,8	29 mm	straight	50 - 150 °C	6 - 24 Volt	<a href="#">642 009 1034</a>

# Temperature sensors & switches

## **MOTOMETER**

### Temperature sensor with warning contact

Temperature sensors with a warning contact are used in vehicles and machines to record the temperature of oil, water or air and to forward the measurement result to a temperature display. A warning contact is closed at the same time as a defined temperature is reached.

MOTOMETER temperature sensors with a warning contact have a NTC resistor, a brass casing and a special gel for rapid temperature transfer with little loss. The pre-tensioned bimetal strips are relaxed when the defined temperature is reached and the contact close.

Operation is possible with 12 Volt or 24 Volt on-board supply system. The switching capacity is 3 W.

### The resistance characteristic is identical for all sensor

60 °C	134,0 Ohm
90 °C	51,2 Ohm
100 °C	38,5 Ohm

### Compatible with MOTOMETER temperature displays

641 011 xxxx  
641 012 xxxx  
Also mass-free available.

Warning contact (+/-3 °C)	Thread	Measuring range	Connection	Art. Nr.
80 °C	M14 x 1,5	40 – 120 °C	A 6,3 x 0,8	<a href="#">642 016 1001</a>
90 °C	M14 x 1,5	40 – 120 °C	A 6,3 x 0,8	<a href="#">642 016 1002</a>
92 °C	M14 x 1,5	40 – 120 °C	A 6,3 x 0,8	<a href="#">642 016 1003</a>
95 °C	1/2"-14 NPTF	40 – 120 °C	A 6,3 x 0,8	<a href="#">642 016 1015</a>
96 °C	M14 x 1,5	40 – 120 °C	A 6,3 x 0,8	<a href="#">642 016 1005</a>
98 °C	M14 x 1,5	40 – 120 °C	A 6,3 x 0,8	<a href="#">642 016 1006</a>
100 °C	M14 x 1,5	40 – 120 °C	A 6,3 x 0,8	<a href="#">642 016 1007</a>
103 °C	M14 x 1,5	40 – 120 °C	A 6,3 x 0,8	<a href="#">642 016 1008</a>
103 °C	M18 x 1,5	40 – 120 °C	A 6,3 x 0,8	<a href="#">642 016 1025</a>
103 °C	1/2"-14 NPTF	40 – 120 °C	A 6,3 x 0,8	<a href="#">642 016 1016</a>
106 °C	M14 x 1,5	40 – 120 °C	A 6,3 x 0,8	<a href="#">642 016 1009</a>
110 °C	M14 x 1,5	40 – 120 °C	A 6,3 x 0,8	<a href="#">642 016 1010</a>
115 °C	M14 x 1,5	40 – 120 °C	A 6,3 x 0,8	<a href="#">642 016 1012</a>
120 °C	M14 x 1,5	50 – 150 °C	A 6,3 x 0,8	<a href="#">642 040 1001</a>
130 °C	M14 x 1,5	50 – 150 °C	A 6,3 x 0,8	<a href="#">642 018 1001</a>

# Temperature sensors & switches

## **MOTOMETER**

### Temperature switch

Temperature switches are used in vehicles and machines to record the temperature of oil, water or air and to close a warning contact when a defined temperature is reached.

The MOTOMETER temperature switches have pretensioned bimetal strips. The use of brass casings and a special integrated gel allows fast temperature transmission with little loss. When the respective temperature range is reached, the pre-tensioning is released and the contact is closed with a switching capacity of 3 W or 100 W.

Operation is possible with an onboard 12 Volt or 24 Volt mains. The voltage for all temperature switches is 6 - 24 volts.

In addition to the listed standard temperature switches, we can also offer you customised solutions.

Warning contact	Tolerance	Thread	Connection	Switching capacity	Features	Art. Nr.
55 °C	+/- 3 °C	M14 x 1,5	A 6,3 x 0,8	100 W	ground isolated	<a href="#">610 006 1006</a>
55 °C	+/- 3 °C	M14 x 1,5	A 6,3 x 0,8	3 W	-	<a href="#">610 003 1005</a>
70 °C	+/- 3 °C	M14 x 1,5	A 6,3 x 0,8	3 W	-	<a href="#">610 003 1007</a>
85 °C	+/- 3 °C	M14 x 1,5	A 6,3 x 0,8	3 W	-	<a href="#">610 003 1008</a>
90 °C	+/- 3 °C	M14 x 1,5	A 6,3 x 0,8	3 W	-	<a href="#">610 003 1009</a>
95 °C	+/- 3 °C	M14 x 1,5	A 6,3 x 0,8	3 W	-	<a href="#">610 003 1012</a>
On: 70 °C	Off: 60 °C	M14 x 1,5	A 6,3 x 0,8	100 W	Control switch, ground isolated	<a href="#">610 004 1006</a>
On: 82 °C	Off: 74 °C	M18 x 1,5	A 6,3 x 0,8	100 W	Control switch, ground isolated	<a href="#">610 004 1004</a>