

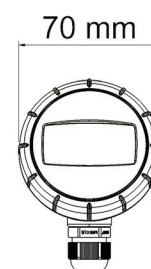


Type code	Meas. element	Meas. accuracy
TMO / NTC10	NTC 10	$\pm 0,2 \text{ }^\circ\text{C}$ (0-70 $^\circ\text{C}$ )
TMO / Pt1000	Pt 1000	$\pm 1 \text{ }^\circ\text{C}$ (0-70 $^\circ\text{C}$ )
TMO / Ni1000	Ni 1000 LG	$\pm 1 \text{ }^\circ\text{C}$ (0-70 $^\circ\text{C}$ )

### Technical information:

Materials	Cover PC, base PBT, seal PA
Protection class	IP 54
Seal	M16 x 1,5
Range of use	- 50 $^\circ\text{C}$ ...+ 50 $^\circ\text{C}$
Time constant	10 min

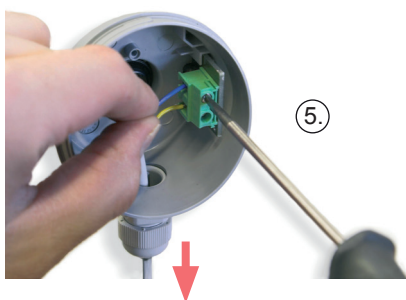
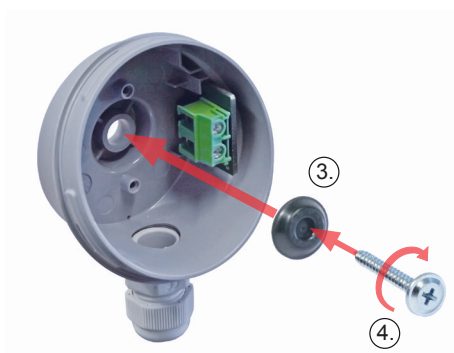
### Dimensions:



## Installation and connection

Position the outdoor sensor (TMO) preferably in a shady place on the northern side. Install the outdoor sensor at a high of about 2.5 meters.

**!** Do not install the sensor directly above a window, door, vent or sensor cable protection tube coming from indoors (warm air rises and gives a wrong reading).  
The sensor must not be installed next to an exhaust duct or any other source of heat.



1. Screw open the cover of the sensor case.
2. The plug can be attached to the wall
3. Put the membrane seal into place on the bottom of the sensor case.
4. Screw a screw through the membrane seal to puncture it. Screw the sensor to the wall. Make sure that the cable's bushing seal on the case goes down.
5. Connect the sensor to the regulating device as a two-wire connection using weak current cable. The polarity of the cable is irrelevant.
6. Tighten the bushing seal so that it acts as a seal and repels water.

### NTC10

Tol.  $\pm 0,2$  °C (0-70 °C)

#### Temperature/Resistance

°C	$\Omega$
-50	672 600
-40	337 270
-30	177 210
-25	130 540
-20	97 140
-15	72 990
-10	55 350
-5	42 340
0	32 660
5	25 400
10	19 900
15	15 710
20	12 490
25	10 000
30	8 055
35	6 531
40	5 325
45	4 368
50	3 602
55	2 987
60	2 488
65	2 084
70	1 753
75	1 482
80	1 257
85	1 072
90	917,4
95	788,2
100	679,8
110	511,0
120	389,4
130	300,5
140	234,7

### Ni 1000 LG

Tol.  $\pm 0,4$  °C (0 °C)  
DIN EN43760  
tcr 5000 ppm / K

#### Temperature/Resistance

°C	$\Omega$
-50	790,9
-40	830,8
-30	871,7
-25	892,5
-20	913,5
-15	934,7
-10	956,2
-5	978,0
0	1000,0
5	1022,3
10	1044,8
15	1067,6
20	1090,7
25	1114,0
30	1137,6
35	1161,5
40	1185,7
45	1210,2
50	1235,0
55	1260,1
60	1285,4
65	1311,1
70	1337,1
75	1363,5
80	1390,1
85	1417,1
90	1444,4
95	1472,0
100	1500,0
110	1557,0
120	1615,4
130	1675,2
140	1736,5

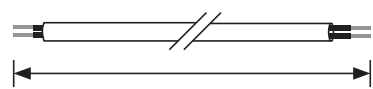
### Pt 1000

Tol.  $\pm 0,3$  °C (0 °C)  
DIN EN60751 B  
tcr 3850 ppm / K

#### Temperature/Resistance

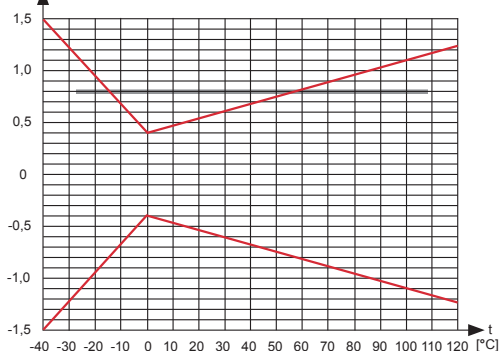
°C	$\Omega$
-50	803,1
-40	842,7
-30	882,2
-25	901,9
-20	921,6
-15	941,2
-10	960,9
-5	980,4
0	1000,0
5	1019,5
10	1039,0
15	1058,5
20	1077,9
25	1097,3
30	1116,7
35	1136,1
40	1155,4
45	1174,7
50	1194,0
55	1213,2
60	1232,4
65	1251,6
70	1270,8
75	1289,9
80	1309,0
85	1328,0
90	1347,1
95	1366,1
100	1385,1
110	1422,9
120	1460,7
130	1498,3
140	1535,8

2 x 0,5 mm<sup>2</sup> (Cu)



50 m	100 m
3,36 $\Omega$	6,72 $\Omega$

$\Delta T$  [K] Tolerance Ni 1000 LG



$\Delta T$  [K] Tolerance Pt 1000

