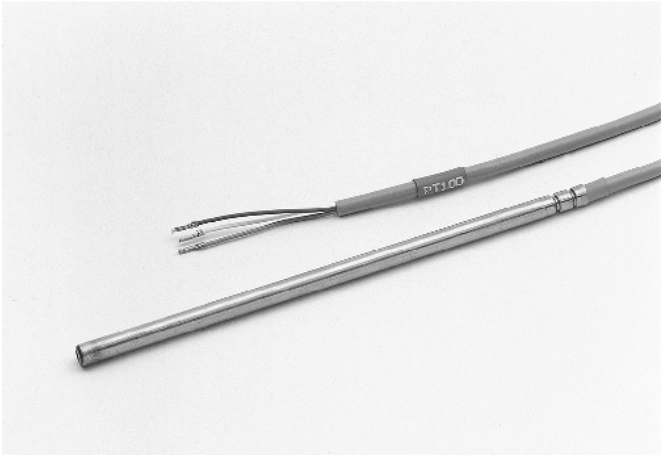
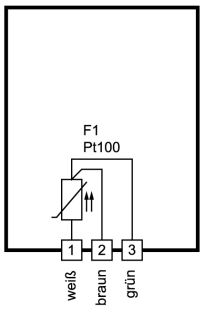
TFPT100-3L



Temperature sensor

Order number 900124.009

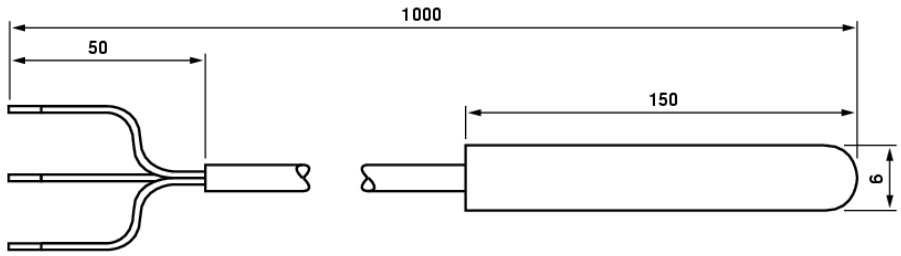
Wiring diagram



Product description

The temperature sensor Pt100 is soldered to the line and electrically isolated installed in the case. For strain relief reasons, the case is waterproof drummed with the line. The sensor has V4A case material (food genuine). For the assembly of the sensors with V4A case, there are several screw connections available in V4A or brass.

Measuring range: -35...105°C
Cable length: 1m
Cable material: PVC-HT
Sensor case: 6x150mm
Tightness: IP64


1000
50
150
6

Resistance thermometer

Base values Pt100

Platinum resistance thermometer Pt100 DIN 43760
Range of use -220 °C upto +750 °C
average temperature nominal value 0.00385/°C

°C	0	-10	-20	-30	-40	-50	-60	-70	-80	-90	-100
-200	18.53	14.36	10.41								
-100	60.20	56.13	52.04	47.93	43.80	39.65	35.48	31.28	27.05	22.78	18.53
0	100.00	96.07	92.13	88.17	84.21	80.25	76.28	72.29	68.28	64.25	60.20
°C	**0**	**+10**	**+20**	**+30**	**+40**	**+50**	**+60**	**+70**	**+80**	**+90**	**+100**
0	100.00	103.90	107.79	111.67	115.54	119.40	123.24	127.07	130.89	134.70	138.50
+100	138.50	142.28	146.06	149.82	153.57	157.32	161.04	164.76	168.47	172.16	175.84
+200	175.84	179.51	183.17	186.82	190.46	194.08	197.70	201.30	204.88	208.46	212.03
+300	212.03	215.58	219.13	222.66	226.18	229.69	233.19	236.67	240.15	243.61	247.06
+400	247.06	250.50	253.93	257.34	260.75	264.14	267.52	270.89	274.25	277.60	280.93
+500	280.93	284.26	287.57	290.87	294.16	297.43	300.70	303.95	307.20	310.43	313.65
+600	313.65	316.86	320.05	323.24	326.41	329.57	332.72	335.86	338.99	342.10	345.21
+700	345.21	348.30	351.38	354.45	357.51	360.55	363.59	366.61	369.62	372.62	375.61
+800	375.61	378.59	381.55	384.50	387.45	390.38					

Variations of Pt100 measuring resistors

	Class A		Class B	
°C	**± Ohm**	**± °C**	**± Ohm**	**± °C**
-200	0.24	0.55	0.56	1.30
-100	0.14	0.35	0.32	0.80
-60	0.11	0.27	0.24	0.60
0	0.06	0.15	0.12	0.30
+100	0.13	0.35	0.30	0.80
+180	0.19	0.51	0.44	1.20
+200	0.20	0.55	0.48	1.30
+300	0.27	0.75	0.64	1.80
+400	0.33	0.95	0.79	2.30
+500	0.38	1.15	0.93	2.80
+600	0.43	1.35	1.06	3.30
+650	0.46	1.45	1.13	3.55
+700			1.17	3.80
+800			1.28	4.30
+850			1.34	4.55

Tolerances in °C
for class A = ± (0.15 + 0.002*t)
for class B = ± (0.30 + 0.005*t)
(t = Temperatur in °C)

Base values for measuring resistors with other nominal resistance (e.g. Pt500)

0°C = 100.00 x 5 = 500.00 Ohm
100°C = 138.50 x 5 = 692.50 Ohm
200°C = 175.84 x 5 = 879.20 Ohm

The base values of measuring resistors with other nominal values are determined correspondingly.
(e.g. nominal resitance 1000 has multiplier 10)