

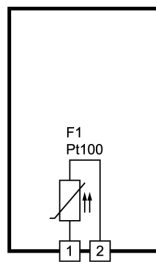
TFPT100-2L

Temperature sensor

Order number 900001.045



Wiring diagram



Product description

The temperature sensor Pt100 is a screw-in sensor with 2-pole flat plug connector matching the AMP Junior Timer jack.

Measuring range: -40...105°C

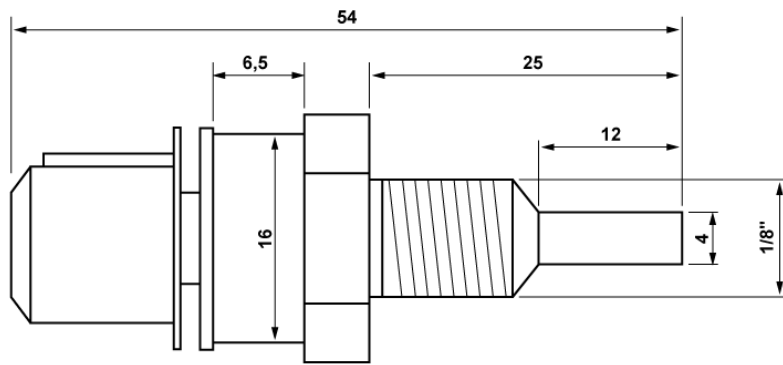
Length: 25mm

Sensor size: 4x12mm

Thread: NPFT 1/8"-27

Spanner: 17mm

Attachment: 16x6.5mm



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

°C	Class A		Class B	
	± 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)

$$0^{\circ}\text{C} = 100.00 \times 5 = 500.00 \text{ Ohm}$$

$$100^{\circ}\text{C} = 138.50 \times 5 = 692.50 \text{ Ohm}$$

$$200^{\circ}\text{C} = 175.84 \times 5 = 879.20 \text{ Ohm}$$

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