

Thank you for choosing a NIVELCO instrument.
We are sure that you will be satisfied throughout its use!

THERMOCONT TFP

TEMPERATURE SENSORS

USERS MANUAL



ООО "РусАвтоматизация"
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NIVELCO

1. APPLICATION

Resistance thermometers are the fundamental elements of the industrial process control. The design of the TFP-□□□-□ resistance thermometer-family enables temperature metering in industrial applications. Primarily they are used as sensors for heated tools and bearings to control the temperature. The sensor tip of the TFP-5 and TFP-6 types is made from copper, in order to provide faster response time. The TFP-3 and TFP-4 types have process connection including a suitable mounting bolt. For the TFP-1, TFP-2, TFP-5 and TFP-6 different types of mounting bolts can be ordered separately. The mounting bolts allowing to screw the sensors into various threads.

2. TECHNICAL DATA

Type	THERMOCONT TFP - □□□-□
Process temperature	-50 °C ... +200 °C
Sensor	Pt 100
Accuracy class	A or B (MSZ EN 60751), as per order codes
Measuring current	max. 5 mA
Time constant (9 / 10)	TFP-5, TFP-6: ~ 35 sec. TFP-1, TFP-2, TFP-3, TFP-4: ~ 45 sec.
Housing material	1.4571 stainless steel
Probe length (L)	max. 250 mm, as per order codes
Connection	Teflon coated wire, 0.35 mm ² ; dual or 4-wire: 0.14 mm ²
Cable protection	Tinned copper-braid protective jacket
Cable length	0.6 – 12 m, as per order codes
Mechanical protection	IP 54
Electrical protection	Class III.
Mass	Max. 0.6 kg (Depending on model)

2.1. ACCESSORIES

- User's manual
- Warranty Card
- Declaration of Conformity

2.2. ORDER CODE (NOT AVAILABLE IN ALL COMBINATIONS)

THERMOCONT T F P - □ □ □ - □

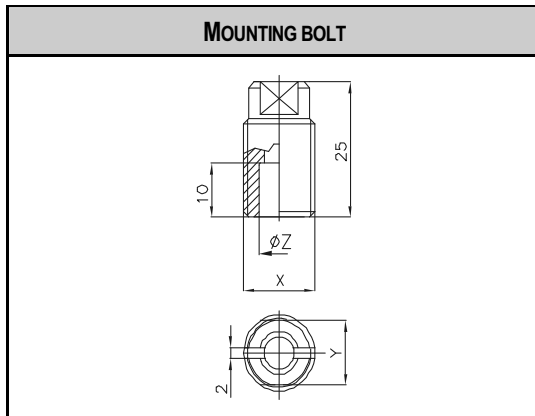
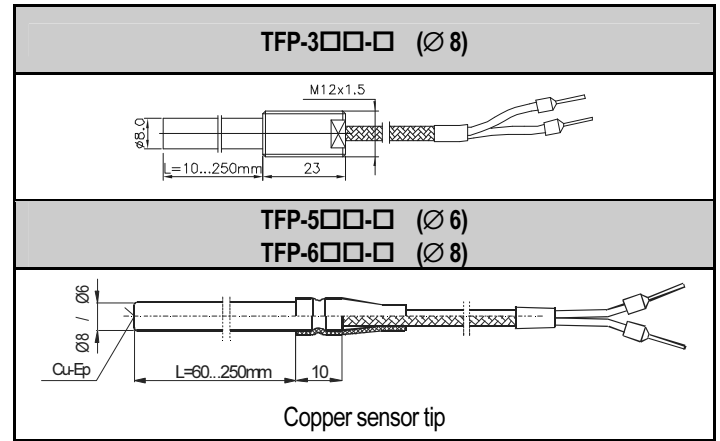
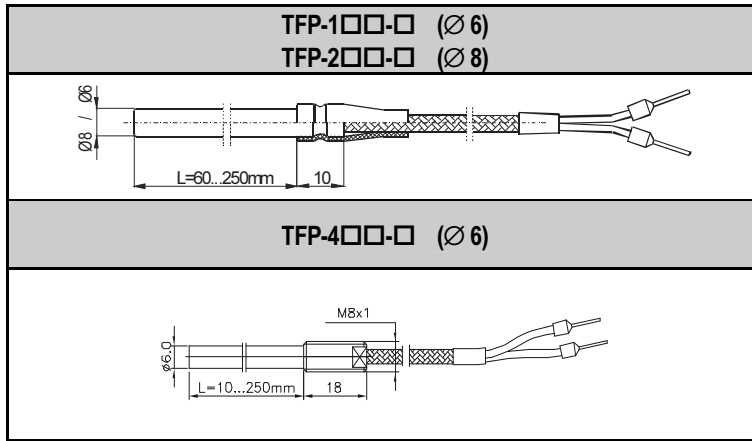
TUBE SIZE	CODE	SENSOR DESIGN	CODE	PROBE LENGTH	CODE	CABLE LENGTH	CODE
∅ 6	1*	Class A single	1	60 mm	1	0.6 m	0
∅ 8	2*	Class B single	2	100 mm	2	1 m	1
M12x1.5 (∅ 8)	3	Class A dual	4**	160 mm	3	2 m	2
M8x1 (∅ 6)	4	Class B dual	5**	250 mm	4	3 m	3
∅ 6, fast response	5*	Class B, single 4-wire	6	10 mm***	5	6 m	4
∅ 8, fast response	6*	Class A, single 4-wire	7	30 mm***	6	12 m	5

* mounting bolts can be ordered separately
** only with TFP-2, TFP-3, TFP-6 types
*** only with TFP-3, TFP-4 types

Available mounting bolts (Material: 1.4571 stainless steel)

Thread	TFP-5□□□-□	TFP-6□□□-□
M10	TFP-511-0M-000-01	-
M12	TFP-511-0M-000-02	TFP-611-0M-000-02
M12x1.5	TFP-511-0M-000-03	TFP-611-0M-000-03
M14x1	TFP-511-0M-000-04	TFP-611-0M-000-04
M20x1.5	TFP-511-0M-000-05	TFP-611-0M-000-05
1/8"	TFP-511-0M-000-06	-
1/4"	TFP-511-0M-000-07	TFP-611-0M-000-07
3/8"	TFP-511-0M-000-08	TFP-611-0M-000-08
1/2"	TFP-511-0M-000-09	TFP-611-0M-000-09

2.3. DIMENSIONS



X	Y	ØZ	
M10	7	6	-
M12	8	6	8
M12x1.5	8	6	8
M14x1	10	6	8
M20x1.5	13	6	8
1/8"	7	6	-
1/4"	8	6	8
3/8"	13	6	8
1/2"	16	6	8

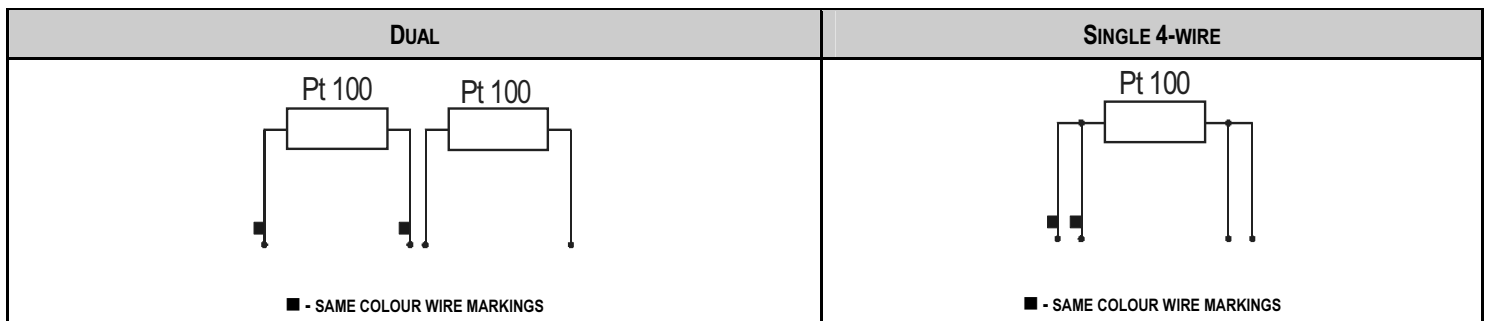
3. MOUNTING

The temperature sensor can be mounted into a hole which is suitable both for the probe length, tube size and the threaded connection. The tube length under the shrink tube is 10 mm. The mounting bolt can be pulled with the wrench on the notches (Y), or with a tool which fits to the groove.

When using the mounting bolt – if the mounting bolt is ordered separately – the plastic shrinking tube seal, must be removed!

The probe length (L) does not change with the use of the mounting bolt!

4. WIRING



At the 4-wire version, the same sensor wires are marked with the same colour.

At the dual sensor version, the wires of one sensor are marked with the same colour.

5. MAINTENANCE, REPAIR

The unit does not require regular maintenance. All repairs will be carried out at the manufacturer's premises.

6. STORAGE CONDITIONS

Ambient temperature: -25 ... +55°C

Relative humidity: max. 98%

7. WARRANTY

NIVELCO provides warranty of 3 (three) years in compliance with details described in the Warranty Card.

tfp1210a0600h_03
2015. March

NIVELCO reserves the right to change technical specifications without notice.