

## PT31M12, PT31M12\_IZ PT31M12/H, PT31M12\_IZ/H

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### CONTACT THERMOMETER WITH CONNECTOR

- easy connecting
- optional dimensions
- weld or adjustable screwing
- temperature range: -30...+400°C

This RTD temperature probes are mainly used for measuring temperature in liquids and gasses. A Pt100 temperature sensing element according to DIN EN 60751, class b in 2-wire circuit is used as a measuring insert by default. Versions with Pt500 or Pt1000 are also possible. The connection is also available in 3-wire and 4-wire circuits as an option. Metal parts is made from stainless steel of 17248 grade.

**PT31M12** Diameter: Ø 6 or 8mm (or other)  
Connector: M12x1 (EC-FS4-L/16), without cable  
Immersion length „Y“ and design we can adjust according to your order.  
Screwing: M10x1, M12x1,5 M12x1,75; G1/4, G1/2; M20x1,5; M27x2, G3/4 ..  
Other fittings on request.

**PT31M12/H** Version without screw connection, bare stem.

**Technical data:** Basic design: 8x100mm Pt100/B G1/2 2w max. 90°C  
Measuring range: -30...+100° (τ=cca 7sec)  
Wide temperature range : -30...+400° (τ=cca 7sec)  
Protection (IP code): IP67 (only with threaded connector)  
Dielectric strength: 500V, dielectric resistance min. 20MΩ

#### Used teperature sensors:

Pt100/A,B	PT1000/A,B
Ni1000/5000	Ni1000/6180
NTC ....	KTY ...
PTC ....	SMT 160-30-92
DALAS..	Bimetal contact

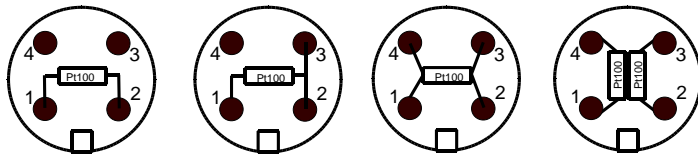
Twin temperature sensor is also possible.

#### Type tests:

Standard type test: to ČSN EN 60770-1 ed.2  
EMC to ČSN EN 61326-1  
Safety: assessed acc. to ČSN EN 61010-1

#### Connection:

##### PT31M12



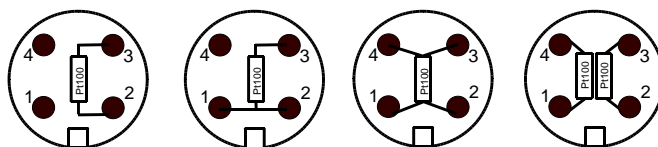
2W

3W

4W

2xPt100

##### PT31M12\_IZ:



2W

3W

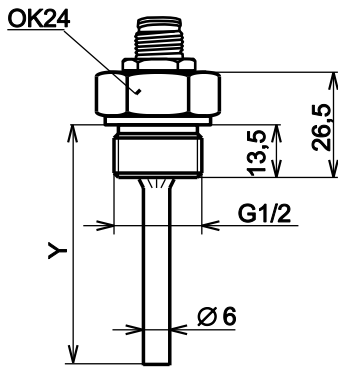
4W

2xPt100

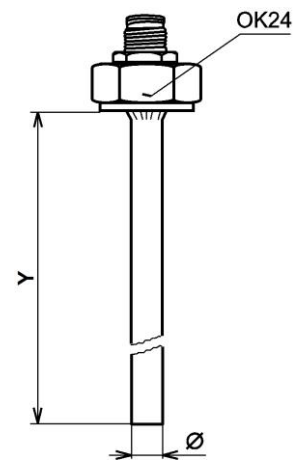
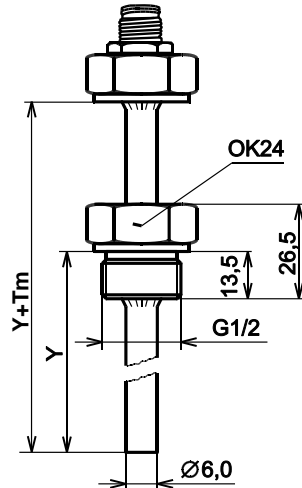


**Dimensions:**

**PT31 M12:**



**PT31 M12/H:**



**Min. distance (Tm):**

- For temperature +101 .. +200°C Tm=100mm
- For temperature +201 .. +400°C Tm=180mm

**For design with bimetal contacts:**

- switching temperature point (NC or NO) Ts: +45, +50, +60, +70, +80, +90 a +100°C (according to order)
- accuracy: Ts +/- 5°C
- contact reset: T=Ts - 30°C
- max. current: 4A
- max. voltage: 250V
- ambient temperature: -20 .. +100°C
- dielectric strength: 2000V eff
- lifetimet: 10 000 contact making
- stem diameter: 10mm
- mechanical resistance: max. 10...500Hz 49ms<sup>-2</sup>, amplitude 0,4mm
- operating position: any
- connection: 1, 2: 1. connection of contact  
3, 4: 2. connection of contact

**Your order should include:**

- thermometer type
- type and accuracy of sensor or other spec. demands (2x sensor, other type of sensor - KTY, PTC, bimetal, thermocouple...)
- stem diameter (for a bimetal it is 10mm min.)
- stem length Y ( Y+Tm)
- Screwing
- quantity (No. of pieces)

**Purchase order examples:**

PT31M12 8x150/50mm G1/2 Pt100/A 4w	3 pcs
PT31M12 6x220mm Pt100/B M20x1,5 3w	1 pc
PT31M12 10x100mm Tk R60°C M20x1,5	4 pcs
PT31M12_Iz 8x550mm G3/4 Ni1000/6180A 2w	2 pcs
PT31M12_Iz 6x130/80mm M27x2 Pt100/A 4w	6 pcs
PT31M12/H 8x100mm Pt100/A 4w max.100°C	1 pc
PT31M12/H 6x220mm 2xPt100/B 2w max.220°C	2 pcs
+ untight sliding screw fitting M20x1,5	1 pc
PT31M12_Iz/H 8x130mm Pt100/A 4w max.100°C	3 pcs
+ thermowell 8/10x100mm G1/2	1 pc

Any thermometer can be provided with a calibration protocol.