Probe temperature sensor, with high corrosion resistance IP66 housing, specifically designed for surface treatment baths, and highly basic or acid corrosive liquids or environments. Type TY



Main applications

Temperature sensor for electronic temperature control control of surface treatment or corrosive liquid baths, sea water environment, livestock premises.

Housing: protection class IP 66 upon EN 60529 (waterproof spray water under high pressure and sea splashes, totally dust tight), dia. 105mm, height 66mm (excluding accessories and cable glands), made of plastic. To eliminate the enclosure risk of corrosion, there is no netallic part in contact with the external environment. Cover gasket and cable gland stuffing sets are made in EPDM. Rod seal is made of fluorocarbon elastomer FKM (Viton). The cover can be unscrewed by hand, but it is also possible to use a hook spanner.

Temperature sensors types:

-NTC (10KOhms @25°C), β =3380), Pt100 (class A), Pt1000 (class A), thermocouple J, thermocouple K. Maximum temperature on the probe 120°C (250°F).

Electrical connections: Cable input/output through by two M20 cable glands. Electrical connection on screw terminals

Probe dimensions: Outside diameter (D) before optional sleeving is 10mm. Length (L): 230, 300, 450, 600, 800mm (1000mm on request) **Probe material and sleeving:**

-SUS 316L without sleeving

-Titanium

- SUS 316L with shrinked PTFE sleeve, thickness 0.4 to 0.6mm

Mounting:

- By the 1" BSPT thread (Mounting through wall is watertight when used with the 1" nut and seal. See accessories)
- By a rotatable plastic bracket, enabling mounting on tank edge (See accessories)
- By the 2 legs on the side (2 holes dia 5 mm center distance 113 mm)

Cover and housing material options:

- Body and cover in black PA66, glass filled, suitable for most applications in medium low to medium corrosive liquids, up to 90 °C. Allows viewing input and output power supply and thermostat set point. Excellent mechanical strength of the housing (IK10). Very good UV resistance

- Body and cover in orange PP (polypropylene): Very good resistance to strong bases, good resistance to acids. For use in liquids up to 90 °C. Reduced mechanical strength (IK7).

- Body and cover in white PVDF: For use in liquid baths at temperatures above 90 °C and up to 110°C or strong oxidizing chemicals such as chrome electrolyte or nitric acid solution (HNO3). Reduced mechanical strength (IK7).

Sensor options: Built in temperature transmitter (Not available with NTC sensor)

Rod protection options (see also table below)

- Stainless steel 316L-Ti without coating

- Stainless steel 316L, with FEP chemically deposed coating, thickness 0.2 to 0.4mm Stainless steel 316L, with PFA chemically deposed coating, thickness 0.2 to 0.4mm
- Stainless steel 316L, with PTFE chemically deposed coating, thickness 0.05 to 0.1mm
- Stainless steel 316L, with ETFE chemically deposed coating, thickness 0.2 to 0.4mm

Special modifications: This enclosure can receive a transparent polycarbonate cover instead of the opaque cover.



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(P2)

Main references with SS 316L rod, coated with shrinked PTFE

| Temperature sensor | Probe length (L, mm) | Black PA66 housing | Orange PP housing | White PVDF housing |
|---------------------|----------------------|--------------------|-------------------|--------------------|
| NTC (10KOhms @25°C) | 230 | TYN2NN000120231P | TYN2PP000120231P | TYN2VV000120231P |
| NTC (10KOhms @25°C) | 300 | TYN2NN000120301P | TYN2PP000120301P | TYN2VV000120301P |
| NTC (10KOhms @25°C) | 450 | TYN2NN000120451P | TYN2PP000120451P | TYN2VV000120451P |
| NTC (10KOhms @25°C) | 600 | TYN2NN000120601P | TYN2PP000120601P | TYN2VV000120601P |
| NTC (10KOhms @25°C) | 800 | TYN2NN000120801P | TYN2PP000120801P | TYN2VV000120801P |
| Pt100 | 230 | TYSANN000120231P | TYSAPP000120231P | TYSAVV000120231P |
| Pt100 | 300 | TYSANN000120301P | TYSAPP000120301P | TYSAVV000120301P |
| Pt100 | 450 | TYSANN000120451P | TYSAPP000120451P | TYSAVV000120451P |
| Pt100 | 600 | TYSANN000120601P | TYSAPP000120601P | TYSAVV000120601P |
| Pt100 | 800 | TYSANN000120801P | TYSAPP000120801P | TYSAVV000120801P |
| Pt1000 | 230 | TYBANN000120231P | TYBAPP000120231P | TYBAVV000120231P |
| Pt1000 | 300 | TYBANN000120301P | TYBAPP000120301P | TYBAVV000120301P |
| Pt1000 | 450 | TYBANN000120451P | TYBAPP000120451P | TYBAVV000120451P |
| Pt1000 | 600 | TYBANN000120601P | TYBAPP000120601P | TYBAVV000120601P |
| Pt1000 | 800 | TYBANN000120801P | TYBAPP000120801P | TYBAVV000120801P |
| Thermocouple J | 230 | TYC0NN000120231P | TYC0PP000120231P | TYC0VV000120231P |
| Thermocouple J | 300 | TYC0NN000120301P | TYC0PP000120301P | TYC0VV000120301P |
| Thermocouple J | 450 | TYC0NN000120451P | TYC0PP000120451P | TYC0VV000120451P |
| Thermocouple J | 600 | TYC0NN000120601P | TYC0PP000120601P | TYC0VV000120601P |
| Thermocouple J | 800 | TYC0NN000120801P | TYC0PP000120801P | TYC0VV000120801P |
| Thermocouple K | 230 | TYP0NN000120231P | TYP0PP000120231P | TYP0VV000120231P |
| Thermocouple K | 300 | TYP0NN000120301P | TYP0PP000120301P | TYP0VV000120301P |
| Thermocouple K | 450 | TYP0NN000120451P | TYP0PP000120451P | TYP0VV000120451P |
| Thermocouple K | 600 | TYP0NN000120601P | TYP0PP000120601P | TYP0VV000120601P |
| Thermocouple K | 800 | TYP0NN000120801P | TYP0PP000120801P | TYP0VV000120801P |

References modification vs probe coating options

| 316L without coating | 316L-Ti without coating | Titanium | 316L+ FEP 0.2 ~ 0.4mm* | 316L+ PFA 0.2 ~ 0.4mm* | 316L+ PTFE 0.05 ~ 0.1mm* | 316L+ ETFE 0.2 ~ 0.4mm* |
|----------------------|----------------------------|-----------------|---------------------------|---------------------------|-----------------------------|----------------------------|
| xxxxxxxxxxxxxxXV | xxxxxxxxxxxxxXV | xxxxxxxxxxxxxXX | xxxxxxxxxxxxxxxXQ | xxxxxxxxxxxxxx | xxxxxxxxxxxxxxxx | XXXXXXXXXXXXXXXXXX |
| | | | | | | |

* MOQ 100 pieces

Accessories

