
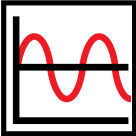
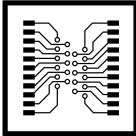
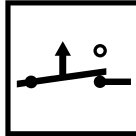

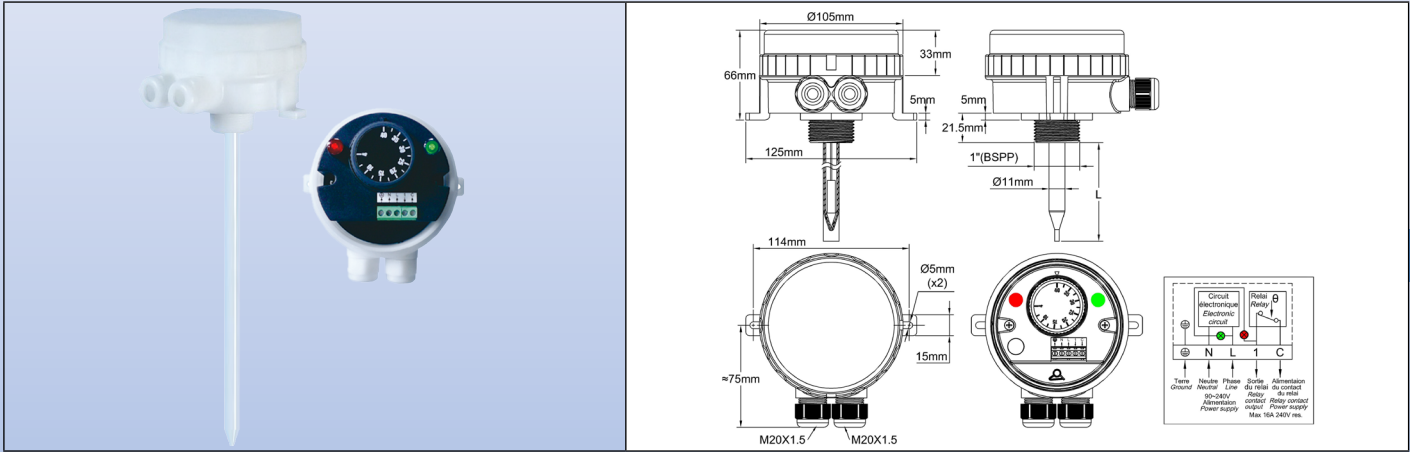


**Low differential electronic rod thermostat, with high corrosion resistance housing, specifically designed for surface treatment baths, and highly basic or acid corrosive liquids or environments.**

Environnement	Type	Operation	Contact	Measurement	Ranges °C	Model
IP66, IK10	Control	Electronic	SPNC	Rod	+110°C +4°C	<b>YF52</b>
						



## Main applications

**Precise temperature control** for 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. Includes an adjustable thermostat that can be set after unscrewing the cover. To eliminate the enclosure risk of corrosion, there is no metallic part in contact with the external environment. Cover gasket and cable gland stuffing sets gaskets 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.

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

**Temperature Adjustment:** Inside, with °C printed knob. (°F printed knobs available in option). Knobs have an invisible device to reduce the temperature range span.

**Sensing element:** NTC thermistor and microprocessor electronic circuit.

**Adjustment ranges:** 4-40°C (32- 104°F); 30-90°C (85-195°F); 30-110°C (90-230°F)

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

**Rod material and sleeving:**

- SUS 316L without sleeving
- Titanium
- SUS 316L with shrunk 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 5mm center distance 113mm)

**Electrical contact:**

- SPNC, Open on temperature rise contact (C-1) 16A (2.6) 250VAC
- Electrical life >100,000 cycles.

Power supply and power output pilot lights (Neutral is mandatory).

**Cover and housing material options:**

- Black PA66, glass filled body, and polycarbonate (PC) transparent, suitable for most applications in low to medium corrosive liquids, up to 90 °C. Allows to view constantly input and output power supply and thermostat set point. Excellent mechanical strength of the housing (IK10). Very good UV resistance.

- Orange PP (polypropylene) body, with transparent polycarbonate (PC) cover: Very good resistance to strong bases, good resistance to acids. For use on liquids up to 90 °C. Allows viewing constantly input and output power supply and thermostat set point. Reduced mechanical strength (IK8).

- Orange PP (polypropylene) body, with transparent polycarbonate (PC) cover: Very good resistance to strong bases, good resistance to acids. For use on liquids up to 90 °C. Allows viewing constantly input and output power supply and thermostat set point. Reduced mechanical strength (IK8).



Contact us

Web: [www.ultimheat.com](http://www.ultimheat.com)

Cat2-2-12-9

**Low differential electronic rod thermostat, with high corrosion resistance housing, specifically designed for surface treatment baths, and highly basic or acid corrosive liquids or environments.**

- Orange PP (polypropylene) body, with opaque orange PP (polypropylene) cover: Very good resistance to strong bases, good resistance to acids. For use in liquids up to 90 °C. Reduced mechanical strength (IK8).
- White PVDF body with opaque white PVDF cover: 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 (IK8).

**Rod protection options (see also table below)**

- Stainless steel 316L-Ti without coating
- Stainless steel 316L, with FEP chemically deposited coating, thickness 0.2 to 0.4mm
- Stainless steel 316L, with PFA chemically deposited coating, thickness 0.2 to 0.4mm
- Stainless steel 316L, with PTFE chemically deposited coating, thickness 0.05 to 0.1mm
- Stainless steel 316L, with ETFE chemically deposited coating, thickness 0.2 to 0.4mm

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

Temperature ranges °C (°F)	Rod length (mm)	Black PA66 housing, crystal clear PC cover	Orange PP housing, crystal clear PC cover	Orange PP housing, orange opaque PP cover	White PVDF housing, White opaque PVDF cover	Differential* °C (°F)	Max temperature on probe °C (°F)
4-40°C (32-104°F)	450	YF52NCS04040451P	YF52PCS04040451P	YF52PPS04040451P	YF52VVS04040451P	0.8±0.2°C (1.5±0.4°F)	120°C (250°F)
30-90°C (85-195°F)	450	YF52NCS30090451P	YF52PCS30090451P	YF52PPS30090451P	YF52VVS30090451P	1±0.3°C (1.8±0.5°F)	120°C (250°F)
30-110°C (90-230°F)	450	YF52NCS30110451P	YF52PCS30110451P	YF52PPS30110451P	YF52VVS30110451P	1±0.3°C (1.8±0.5°F)	120°C (250°F)
4-40°C (32-104°F)	600	YF52NCS04040601P	YF52PCS04040601P	YF52PPS04040601P	YF52VVS04040601P	0.8±0.2°C (1.5±0.4°F)	120°C (250°F)
30-90°C (85-195°F)	600	YF52NCS30090601P	YF52PCS30090601P	YF52PPS30090601P	YF52VVS30090601P	1±0.3°C (1.8±0.5°F)	120°C (250°F)
30-110°C (90-230°F)	600	YF52NCS30110601P	YF52PCS30110601P	YF52PPS30110601P	YF52VVS30110601P	1±0.3°C (1.8±0.5°F)	120°C (250°F)

\* Differentials measured in laboratory conditions, in agitated liquid baths, with temperature change rates below 0.5°C/min.

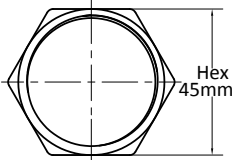
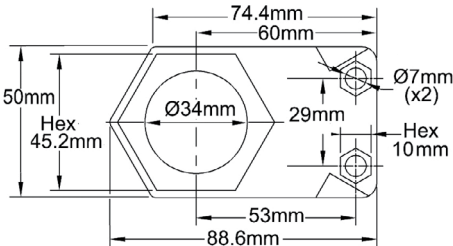
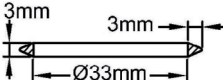
**Reference modifications vs options**

Rod length			Rod protection coating						
300mm	800mm	1000mm	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*
XXXXXXXXXXXX30xx	XXXXXXXXXXXX80xx	XXXXXXXXXXXXA0xx	XXXXXXXXXXXXU	XXXXXXXXXXXXV	XXXXXXXXXXXXW	XXXXXXXXXXXXQ	XXXXXXXXXXXXR	XXXXXXXXXXXXS	XXXXXXXXXXXXT

\* MOQ 100 pieces.

Versions with °F printed knobs: replace S by T in the reference (7th character)

**Accessories**

1" BSPP Nut, 5mm thickness	Bracket for tank side mounting, thickness 10mm (Assembly made with 1" nut)	1" gasket for through wall waterproof mounting with 1" nut
		
Reference in PA66: 66YFHN1N	Reference in PA66: 66YFMB1N	Reference in FKM (Viton): 66YGA1F
Reference in PP: 66YFHN1P	Reference in PP: 66YFMB1P	
Reference in PVDF: 66YFHN1V	Reference in PVDF: 66YFMB1V	

Because of permanent improvement of our products, drawings, descriptions, features used on these data sheets are for guidance only and can be modified without prior advice

