

# Main applications

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 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 as an option). Knobs have an invisible device to reduce the temperature range span.

Sensing element: Liquid filled bulb,

Adjustment ranges: 4-40°C (32-104°F); 0-60°C (32-140°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 shrinked PTFE sleeve, thickness 0.4 to 0.6mm

- 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)

### **Electrical contact: SPDT**

- Open on temperature rise contact (C-1) 16A (2.6) 250VAC
- Close on temperature rise contact (C-2) 6A (0.6) 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 cover, suitable for most applications in medium low to medium corrosive liquids, up to 90 °C. Allows viewing 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 in liquids up to 90 °C. Allows to view constantly input and output power supply and thermostat set point. Reduced mechanical strength (IK8).
- 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

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# Adjustable set point rod thermostat, with high corrosion resistance housing, specifically designed for surface treatment baths, and highly basic or acid corrosive liquids or environments.

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 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

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

Temperature ranges °C (°F)	Rod length (L, 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 rod °C (°F)
4-40°C (32-104°F)	450	YF5GNCS04040451P	YF5GPCS04040451P	YF5GPPS04040451P	YF5GVVS04040451P	2±1°C (3±1.5°F)	50°C (122°F)
0-60°C (32-140°F)	450	YF5GNCS00060451P	YF5GPCS00060451P	YF5GPPS00060451P	YF5GVVS00060451P	3.5±2.5°C (6±4.5°F)	90°C (195°F)
30-90°C (85-195°F)	450	YF5GNCS30090451P	YF5GPCS30090451P	YF5GPPS30090451P	YF5GVVS30090451P	4±3°C (7±5.5°F)	120°C (250°F)
30-110°C (90-230°F)	450	YF5GNCS30110451P	YF5GPCS30110451P	YF5GPPS30110451P	YF5GVVS30110451P	5±3°C (9±7°F)	150°C (300°F)
4-40°C (32-104°F)	600	YF5GNCS04040601P	YF5GPCS04040601P	YF5GPPS04040601P	YF5GVVS04040601P	2±1°C (3±1.5°F)	50°C (122°F)
0-60°C (32-140°F)	600	YF5GNCS00060601P	YF5GPCS00060601P	YF5GPPS00060601P	YF5GVVS00060601P	3.5±2.5°C (6±4.5°F)	90°C (195°F)
30-90°C (85-195°F)	600	YF5GNCS30090601P	YF5GPCS30090601P	YF5GPPS30090601P	YF5GVVS30090601P	4±3°C (7±5.5°F)	120°C (250°F)
30-110°C (90-230°F)	600	YF5GNCS30110601P	YF5GPCS30110601P	YF5GPPS30110601P	YF5GVVS30110601P	5±3°C (9±7°F)	120°C (250°F)

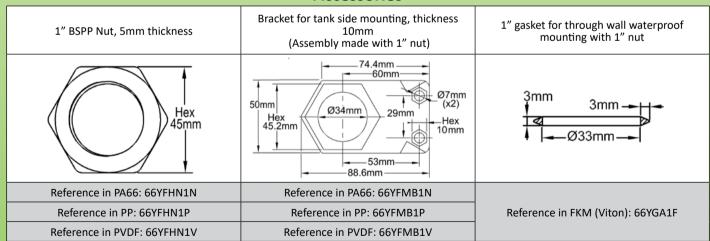
# Reference modifications vs options

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*	
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<sup>\*</sup> MOQ 100 pieces.

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

### **Accessories**



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