

ClimaCheck Test plugs and sensors for "in flow" temperature measurements

The ideal location of a temperature sensor intended to measure an air or liquid temperature in a duct or a pipe is in the actual flow. Traditional sensors has been placed in so called "thermal wells" "temperature pockets" or "dip-tubes". There are disadvantages with this solution. It is challenging to get good contact between sensor and flowing liquid/vapor and response time increase. For temperatures below freezing there is also a risk to freeze dip-tube if water condense inside. In temperature wells heat transfer fluids/paste should be used improve contact and avoid risk to freeze.

A preferred solution is to use a "test-plug" that has a membrane allowing the sensors to be inserted directly in the flow. ClimaCheck offer these together with 150 mm (6") sensors for submersion. ClimaCheck offer these in brass as well as stainless with G 15 thread (1/2" pipe thread). Sensors are available with extended length for insulated tubes. Sensors can be removed for calibration and re-inserted.



ClimaCheck



ClimaCheck Pt1000 sensor

ClimaCheck has developed a sensor specifically designed to be suitable for mounting in test plugs. The sensor is 3 mm in diameter and 150 mm length that can be inserted.

Specification:

Sensor: Pt1000 DIN class A,

 \pm Limits deviations in °C (K), 0.15 + 0.002 · | t |

Approved temperature range: -50 to 150°C

Resistance of the 10 m cable: 1.32 Ohms/+0.34 K

(as standard programmed into PA8:7 or PA PRO)

Sensor is submersible and sealed to eliminate risk for condensation.

Lead: 10 m 4-lead silicon cable (KA2X0.14-STN001), **Potting**: Silicone rubber at tip and PU in housing

Test plugs are available in brass or stainless with short body or long body for use on insulated tubes.

Max. Pressure: 35 BAR, 500 PSI.

Temp range: -8° C (18°F) up to $+135^{\circ}$ C (275°F).

Cap seal: Neoprene Rubber.

Retaining strap: Ethylene Propylene Rubber.

Core: Ethylene Propylene Rubber.

Suitable for low temperature hot water, chilled water and low temperature steam. (Not suitable for oil or other hydro-carbon fluids). See Neoprene below.

Part no.	Description
300501	Temp sen 150mm, dia. 3mm, 4-lead, 10 m
300502	Temp sen 150mm, dia. 3mm, 4-lead, 10 m teleplug
300340	Binder-/ Test plug 8mm, Brass short
300341	Binder-/ Test plug 8mm, Brass, long
300345	Binder-/ Test plug 15mm, Brass short
300346	Binder-/ Test plug 15mm, Brass long
300350	Binder-/ Test plug 8mm, Stainless short
300351	Binder-/ Test plug 8mm, Stainless long
300355	Binder-/ Test plug 15mm, Stainless short
300356	Binder-/ Test plug 15mm, Stainless long

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