



STC600

Water Temperature Sensor

The STC pipe surface sensor permits the monitoring and control of fluid temperature through its specially designed thermistor housing. Its simple installation promotes its flexible use for temporary or permanent monitoring/control applications.

The above sensor is available with the standard 'Satchwell' temperature sensor output characteristic.

FEATURES

- Head design has easily removable, lid.
- Simple wiring connections.
- Sensor head ensures good thermal contact.
- Simple commissioning.
- Direct mounting to pipe surface, allowing any point to be monitored.
- Easily fitted: perfect for permanent or temporary situations.
- IP 65 as standard.

SPECIFICATIONS

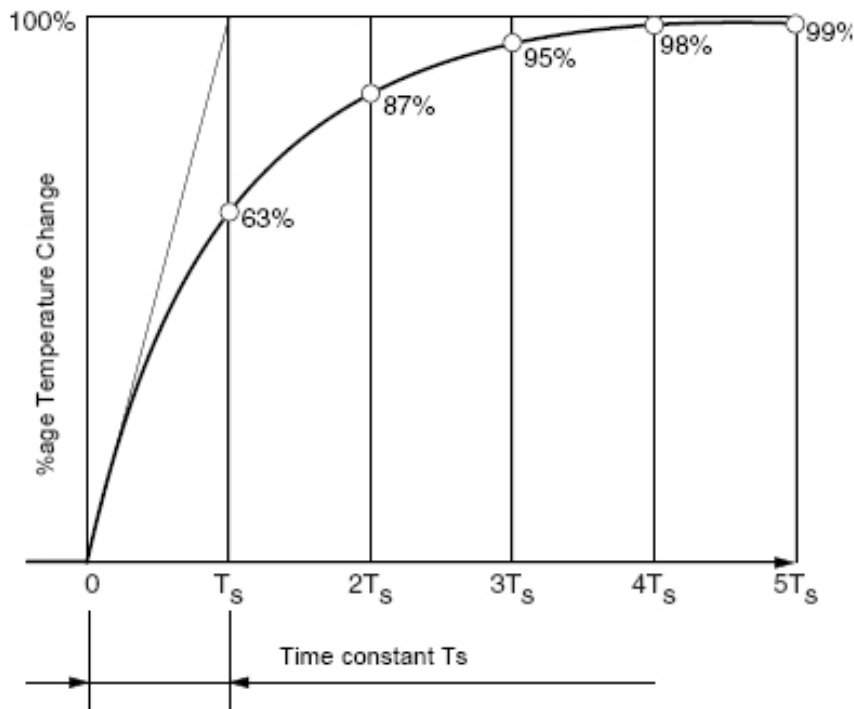
Protection Class	IP 65
Sensing Element	Negative Temperature Coefficient thermistor
Max Sensing Temperature	120°C
Wiring	2-wire non-polarised low voltage dc (Safety Extra Low Voltage (SELV))
Ambient Temperature Limits at Head	-40 to +70°C
Max Temperature in Storage/Transit	55°C
Min Temperature in Storage/Transit	-40°C
Max Humidity in Operation	95% RH
Min Humidity in Operation	0% RH
Max Humidity in Storage/Transit	95% RH
Min Humidity in Storage/Transit	0% RH
Head	Moulded base with lid (2 screw fixing).
Terminals	Terminal block accepts 2 × 1.5mm ² wires; larger sizes not recommended.
Characteristics	Non linear

Part Number	Order Code
STC600	0069300700

SENSOR PRINCIPLES

A sensor does not transmit the change of a measured variable instantaneously. The delay in transmission (*time constant or lag coefficient* T_s) can be shown in graphical form.

Change in Temperature



The time taken to transmit 63% of the total change in the measured variable is referred to as the time constant or lag coefficient T_s .

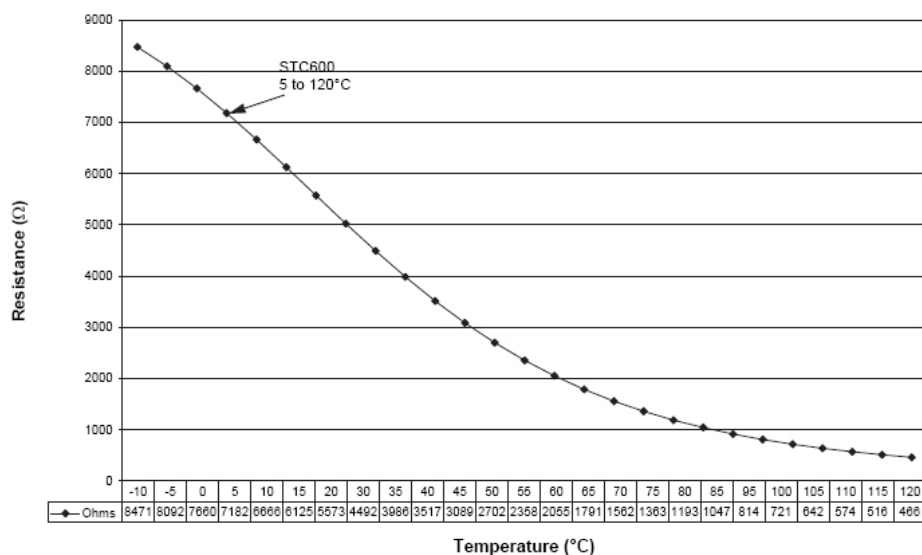
It takes a period equivalent to five times the lag coefficient to transmit approximately 99% of the change in measured variable.

The test is conducted for step temperature change from 20°C to 80°C.

CHARACTERISTICS

Sensor Temperature v Resistance

STC600: 5 to 120°C



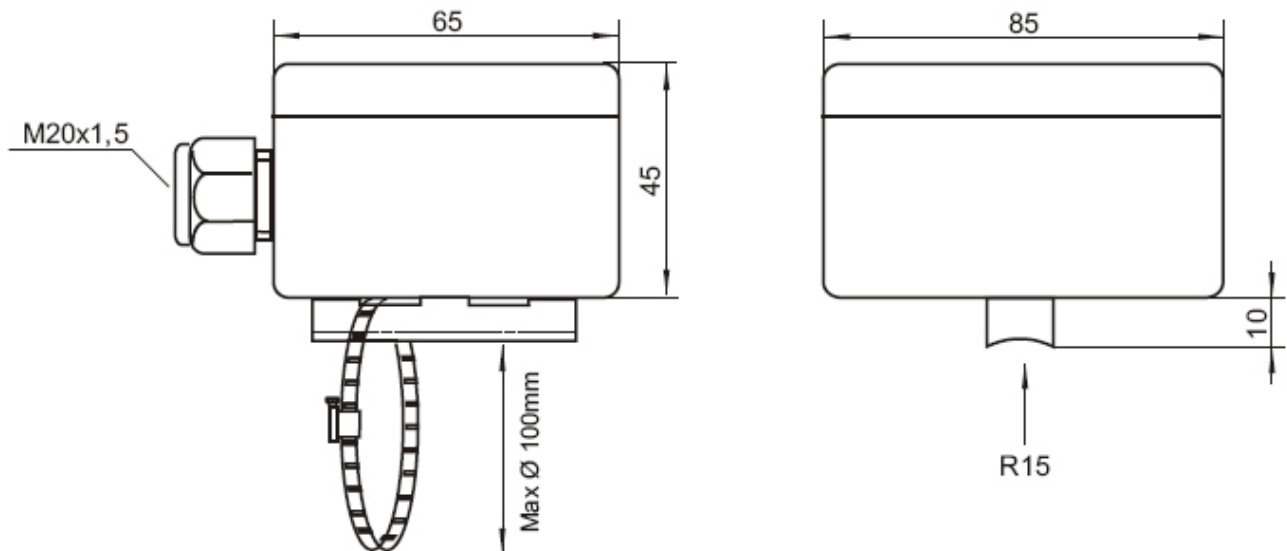
WIRING DIAGRAMS

Wiring Precautions

Refer to the datasheet relevant to the controller to which sensor is to be connected (see table on page 2).

Maximum resistance, 15Ω per core.

Dimension Drawings



Cautions

- Do not apply any voltages until a qualified technician has checked the system and the commissioning procedures have been completed.
- This sensor must only be used in conjunction with the appropriate controllers shown on Page 2.
- Observe wiring precautions given on the data sheet for the controller that the sensor will be connected to.
- Do not exceed the maximum ambient temperatures.
- Interference with parts under sealed covers invalidates the guarantee.
- Design and performance of TAC Satchwell equipment is subject to improvement and therefore liable to alteration without notice.
- Information is given for guidance only and TAC Satchwell does not accept responsibility for the selection and installation of its products unless information has been given by the company in writing relating to a specific application.
- A periodic system and tuning check of the control system is recommended. Please contact your local sales office for details.

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