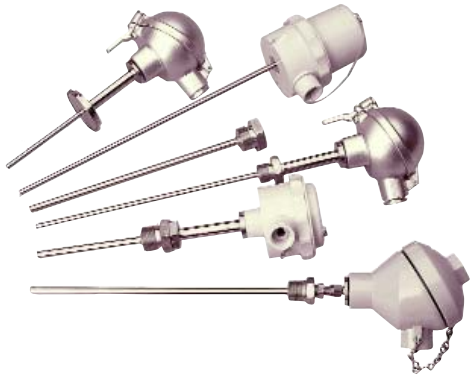
TEMPERATURE PROBES & ACCESSORIES

- STANDARD OR CUSTOM PROBES
- RTD, TC OR THERMISTOR
- CHOICE OF TERMINATION STYLES
- TRANSMITTER OPTIONS
- FULL RANGE OF THERMOWELLS



INTRODUCTION

Status Instruments Ltd provide a complete range of sensors for temperature measurement. Our sensors include:

- PLATINIMUM RESISTANCE TEMPERATURE DETECTORS
- THERMOCOUPLES
- THERMISTORS

Our experience has enabled us to offer a comprehensive range of styles to provide the ideal sensor for every application and all manufactured under our ISO 9001 quality procedures. Complete sensor assemblies may be ordered by simply specifying the respective order code for each component required. Unless you specifically request that the components are to be supplied separately, we will assemble the components into a complete unit.

SENSOR SENSITIVITY

This may be defined as the change in sensor output relative to the temperature change it is detecting. Thermocouples produce a non-linear voltage output proportional to the temperature difference between the Hot or measuring junction and the Cold or reference junction, sensitivities vary typically from about (20 to 50) µV/°C. Pt100 Platinum resistance sensors change their resistance as a function of temperature. The most commonly used exhibit a 0.385 Ω/°C change. Thermistors provide a much higher change of resistance with temperature, but have restricted ranges and are very non-linear unless used over narrow temperature spans.

STANDARD TEMP. SENSORS (STS) SERIES

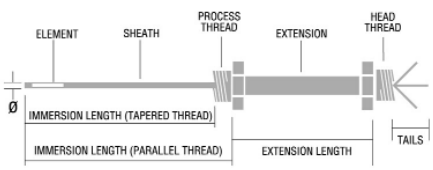
Temperature sensors can be supplied in a variety of styles and configurations, utilising thermocouple or thermistor elements as an alternative to Pt100 elements. If your exact requirements are not readily identified please contact our sales staff who will be pleased to discuss your application and provide a quotation.

(All dimensions in mm unless otherwise stated)

STS STYLE 1

Welded 316 ST/STEEL construction for screw fitting into process connections or STW series pockets (except style 2).

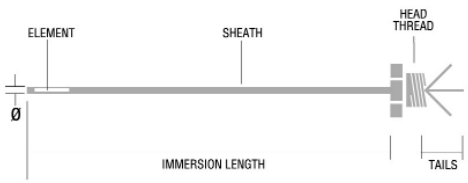
Element	Pt100 to BS.EN 60751 IEC751 Class B*
Sheath	6.0 dia x 75, 100, 150, 200, 250 immersion
Process Thread	½" BSP parallel
Extension	12.7 dia x 75 long
Head Thread	M24 x 1.5
Tails	3 wire 7/0.2Cu PTFE insulated, 150 long
Temp. Range	(-50 to 200) °C (at tip)



STS STYLE 2

All welded 316 ST/STEEL construction sensor for fitting into a compression gland.

Element	Pt100 to BS.EN 60751 IEC751 Class B*
Sheath	6.0 dia x 75, 100, 150, 200, 250 immersion
Head Thread	M24 x 1.5
Tails	3 wire 7/0.2 Cu PTFE insulated, 150 long
Temp. Range	(-50 to 200) °C (at tip).

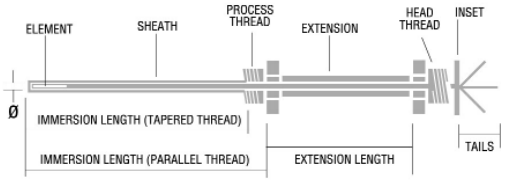


STATUS INSTRUMENTS

TEMPERATURE PROBES & ACCESSORIES

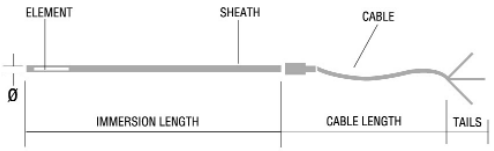
STS STYLE 3
All welded 316 ST/STEEL construction combined inset sensor and pocket. This sensor is designed to be used with a spring mounting kit fitted to the transmitter or terminal block to provide faster response times. The type of transmitter/terminal block and connecting head required must be specified when ordering.

Element	Pt100 to BS.EN 60751 IEC751 Class B*
Sheath	7.9 dia x 75, 100, 150, 200, 250 immersion
Process Thread	½" BSP parallel
Extension	12.7 dia x 75 long
Head Thread	M24 x 1.5
Tails	3 wire 7/0.2 Cu PTFE insulated, 150 long
Temp. Range	(-50 to 200) °C (at tip)



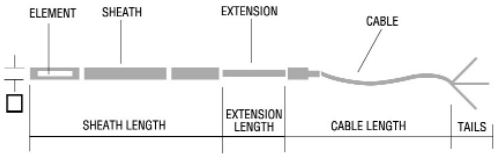
STS STYLE 4
Flying lead sensor with 316 ST/STEEL sheath for fitting into a compression gland.

Element	Pt100 to BS.EN 60751 IEC751 Class B*
Sheath	6.0 dia x 75, 100, 150, 200, 250 immersion
Cable	3 wire 7/0.2 Cu PTFE insulated, 1 m long
Temp. Range	(-50 to 200) °C (at tip)



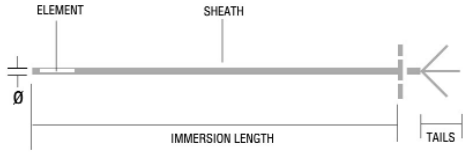
STS STYLE 5
Square aluminium block, strap-on-sensor with flying lead for clamping directly to pipes.

Element	Pt100 to BS.EN 60751 IEC751 Class B*
Sheath	¼ " square x 50 long
Extension	4.0 dia x 19 long
Cable	3 wire 7/0.2 Cu PTFE insulated, 1 m long
Temp Range	(-50 to 200) °C (at tip)



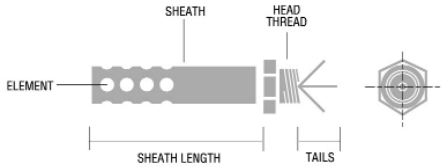
STS STYLE 6
316 ST/STEEL sensor suitable for energy management applications such as duct air and outside air temperature. This sensor can ONLY be used in conjunction with the SCH4 series connecting head.

Element	Pt100 to BS.EN 60751 IEC751 Class B*
Sheath	6.0 dia x 50, 150, 305 immersion
Flange	20.0 A/F Hex x 1.6 thick
Tails	3 wire 7/0.2Cu PTFE insulated, 75 long
Temp. Range	(-50 to 150) °C (at tip)



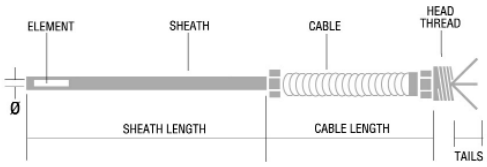
STS STYLE 7
All welded 316 ST/STEEL sensor with protective sheath suitable for energy management applications such as outside air temperature. This sensor can ONLY be used in conjunction with the SCH4 or DM500 (M16 entry) series connecting heads.

Element	Pt100 to BS.EN 60751 IEC751 Class B*
Sheath	12.7 dia x 50 long
Head Thread	M16 x 1.5
Tails	3 wire 7/0.2 Cu PTFE insulated, 75 long
Temp. Range	(-50 to 50) °C (at tip)



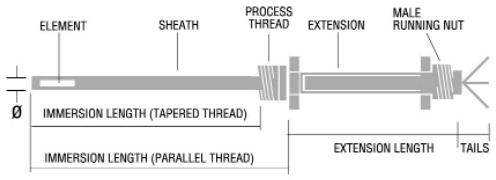
STS STYLE 8
Flying lead sensor with a 316 ST/STEEL sheath designed to be used as a direct replacement for mechanical thermometers in conjunction with the DM400 and DM500 series local indicators, see Instrument section.

Element	Pt100 to BS.EN 60751 IEC751 Class B*
Sheath	12.7 dia x 200 immersion length
Head Thread	M16 x 1.5
Cable	Flexible PVC sheath over cable 3 wire 7/0.2 Cu PTFE insulation, 1 m long
Temp. Range	(-50 to 200) °C (at tip)



STS STYLE 9
All welded 316 ST/STEEL sensor for screw fitting into process connections or STW series pockets. Designed to be used with the Status SCH4 connecting head or the DM400/500 local indicators it features a "running nut" head which enables the indicator to be orientated to the optimum viewing position.

Element	Pt100 to BS.EN 60751 IEC751 Class B*
Sheath	6.0 dia x 75,100,150,200,250 immersion
Process Thread	½" BSP parallel
Extension	9.5 dia x 75 long
Head Thread	M16 x 1.5
Tails	3 wire 7.0.2 Cu PTFE insulated, 150 long
Temp. Range	(-50 to 200) °C (at tip)

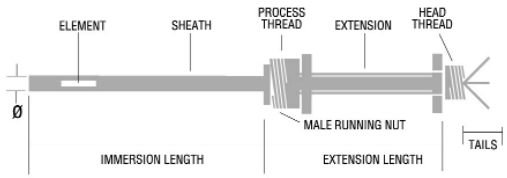


STATUS INSTRUMENTS

TEMPERATURE PROBES & ACCESSORIES

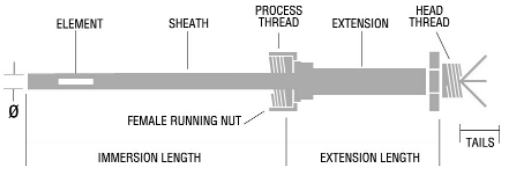
STS STYLE 10
All welded 316 ST/STEEL sensor for screw fitting into an internal thread hygienic type process connection.

Element	Pt100 to BS.EN 60751 IEC751 Class B*
Sheath	6.0 dia x 75,100,150,200,250 immersion
Process Thread	¾" BSP parallel male running nut
Extension	12.7 dia x 75 long
Head Thread	M24 x 1.5
Tails	3 wire 7.0.2 Cu PTFE insulated, 150 long
Temp. Range	(-50 to 200) °C (at tip)

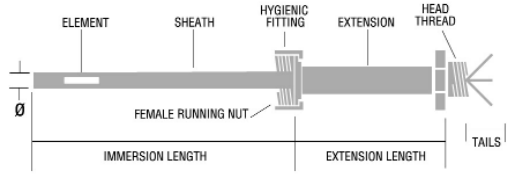


STS STYLE 11
All welded 316 ST/STEEL sensor for screw fitting into an external thread hygienic type process connection.

Element	Pt100 to BS.EN 60751 IEC751 Class B*
Sheath	6.0 dia x 75,100,150,200,250 immersion
Process Thread	¾" BSP parallel female running nut
Extension	12.7 dia x 75 long
Head Thread	M24 x 1.5
Tails	3 wire 7.0.2 Cu PTFE insulated, 150 long
Temp. Range	(-50 to 200) °C (at tip)



STS STYLE 12
All welded 316 ST/STEEL sensor for fitting to various hygienic process connections e.g. IDF, RJT, SMS patterns. Due to the wide variety of type and size of fittings, all sensors to this style are manufactured to customers specifications.



STW SERIES POCKETS/ THERMOWELLS

Some sensors can be fitted directly into the process by means of an integral process connection or by using an appropriate compression fitting. Other applications require a pocket or thermowell which is a permanent fitting into the process yet allows the sensor to be inserted or removed without interruption.

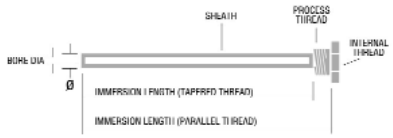
Pockets invariably increase the response time and obviously the thicker and heavier the pocket the more the response time will be increased. Some styles use spring loading which keeps the inset in permanent contact with the pocket. However, it is the radial clearance between the inset and pocket which has the greatest influence on response time.

For improved response the inset should be assembled into the pocket using thermally conductive grease. The following illustrations show the six most popular styles of pockets/thermowells.

NOTE: Pocket immersion lengths are relative to the probe lengths shown.

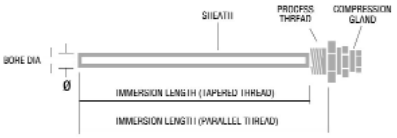
STW STYLE 1
All welded 316 ST/STEEL construction for screw fitting into process connection, suitable for STS sensors Style 1 and 9.

Sheath	7.9 dia x 71, 96, 146, 196, 246 immersion
Probe lengths	75, 100, 150, 200, 250
Process thread	3/4" BSP Parallel
Internal thread	1/2" BSP



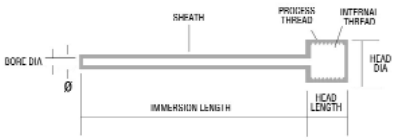
STW STYLE 2
All welded 316 ST/STEEL construction with brass compression gland, suitable for style 2, 4 & 6 sensors.

Sheath	7.9 dia x 23, 48, 98,148, 198 immersion
Probe lengths	75, 100, 150, 200, 250
Process thread	1/2" BSPT
Compression fitting	1/4" BSPT x 6.0 dia.



STW STYLE 3
All welded 316 ST/STEEL construction 'weld-in' pocket, suitable for Style 1,9 and Style 2, 4 & 6 sensors when used in conjunction with a compression gland.

Sheath	7.9 dia x 55, 80, 130, 180, 230 immersion
Probe lengths	75, 100, 150, 200, 250
Head	25.4 dia x 26 long typical
Internal Thread	1/2" BSP Parallel

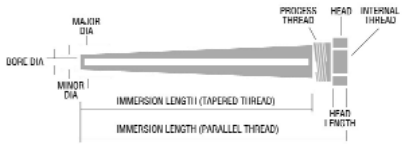


STATUS INSTRUMENTS

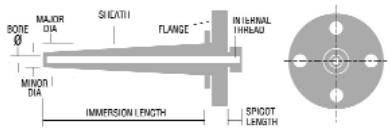
TEMPERATURE PROBES & ACCESSORIES

STW STYLE 4
Solid turned 316 ST/STEEL construction sensor for screw fitting into process connection, suitable for Style 1 sensors.

Parallel Sheath	13.4 dia x 57 & 82 immersion
Probe lengths	75 & 100
Tapered Sheath	13.4 to 19.0 dia x 132, 182, 232 immersion
Probe lengths	150, 200, 250
Process Thread	3/4" BSP Parallel
Internal Thread	1/2" BSP Parallel



STW STYLE 5
All welded 316 ST/STEEL construction for bolting to a flanged process connection. Due to the wide variety of, dimensional, material, pressure and pipe size requirements, all thermowells of this style are manufactured to customers specifications.



ORDER CODE

STS	/	STYLE	/	IMMERSION LENGTH

Styles		1 - 12
Length	Styles 5, 6 & 7 only	- 050
	Not styles 5, 6 & 7	- 075
	Not styles 5 & 7	- 150
	Not styles 5, 6 & 7	- 200
	Not styles 5, 6 & 7	- 250
	Styles 6 & 12 only	- 305

EXAMPLE: STS2 / 075 - Style 2, 75 mm Immersion

*NOTE: Pt100 sensors are supplied as standard to Class B. They can be supplied to Class A or 1/10 Class B on request. Sensors are also available with THERMOCOUPLE or THERMISTOR elements.

For special requirements please specify (where applicable) all details shown in diagrams, i.e. immersion length & diameter, extension length, element type, process thread, head thread, material & temperature range and in the case of hygienic sensors, the type and size of the fitting.

ORDER CODE

STS	/	STYLE	/	LENGTH

Styles		1 or 2
Length		- 075
		- 100
		- 150

EXAMPLE: EXT1 /150 - Style 1, 150 mm long

For special requirements please specify, style, process thread, extension length, head thread and any other relevant details.

ORDER CODE

STW	/	STYLE	/	IMMERSION LENGTH

Styles		1 -6
Immersion to suit std. sensor lengths		- 075
		- 100
		- 150
		- 200
		- 250
		- 305

Example: STW2/075 - Style 2 pocket to suit 75 mm standard probe.

Note: For Styles 5 & 6 or special requirements on other styles, please specify (where applicable) all details shown in diagrams.

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