

# STA206 TEMPERATURE SENSOR & INTEGRAL TRANSMITTER

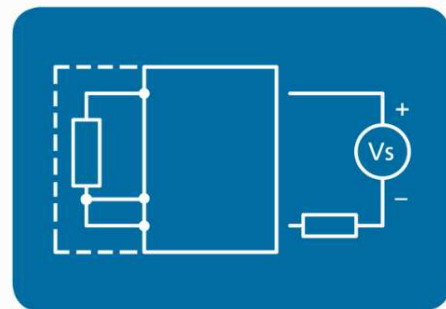
- > **PT100 SENSOR**
- > **(4 to 20) mA OUTPUT**
- > **PC PROGRAMMABLE TEMPERATURE RANGE**
- > **STANDARD DIN CONNECTOR**
- > **HIGH STABILITY**

## > **INTRODUCTION**

The STA206 is a cost-effective sensor and transmitter assembly housed in a 316 Stainless Steel body with an integral Pt100 sensor, transmitter and DIN connector.

The integrated temperature transmitter is based around our SEM106P. PC configuration allows the user to select Range, units and Burnout direction, without requiring calibration equipment. Configuration is performed quickly using our USB port driven configurator by simply connecting two clips to the STA206 loop terminals and following the software instructions. Calibration set up may be saved as a file on the PC for later use.

If required, the desired range can be specified at the time of order, removing the need for user configuration. If the range is not specified, then the transmitter will be shipped with the default range of (0 to 100) °C.



## > **FEATURE HIGHLIGHTS**

### **SENSOR REFERENCING**

The STA206 sensor referencing via the Windows based USBSpeedlink software allows for close matching to a known reference eliminating possible errors.

### **SENSOR BURN OUT DETECTION**

If a sensor wire is broken or becomes disconnected the STA206 output will automatically go to its user defined level upscale or downscale.

### **STABILITY**

The STA206 in head transmitter incorporates the latest digital technology to ensure accurate, low drift performance.



# STA206 TEMPERATURE SENSOR & INTEGRAL TRANSMITTER

PROBE		SPECIFICATIONS @20 °C
<b>Type/ Function</b>	<b>Range/ Description</b>	<b>Accuracy/ Stability</b>
PT100 Class A	(-20 to 250) °C	± 0.2 °C ± 0.05 % of reading *2
Thermal drift	Zero at 20 °C	±0.02 °C / °C
Minimum span	25 °C *1	
*1 Any span may be selected; full accuracy is only guaranteed for spans greater than the minimum recommended		
*2 Basic measurement accuracy includes the effects of calibration, linearization and repeatability		

OUTPUT		SPECIFICATIONS @20 °C
<b>Type/ Function</b>	<b>Range/ Description</b>	<b>Accuracy/ Stability/ Notes</b>
Two wire current	(4 to 20) mA	(mA output /2000) or 5 uA (Whichever is the greater)
Thermal drift	Zero at 20 °C	2 uA / °C
Maximum output current	21.5 mA	In high burnout condition
Minimum output current	< 3.9 mA	In low burnout condition
Loop voltage effect	0.2 uA / V	
Maximum output load	[(V supply - 10)/20] KΩ	700 Ω @ 24 V DC
Loop supply	(10 to 30) V DC	SELV

USB USER INTERFACE		
<b>Type/ Function</b>	<b>Range/ Description</b>	<b>Notes</b>
Configuration hardware	USB configuration module	USB-CONFIG-MKII
Configuration software	USBSpeedLink	Download <a href="http://www.status.co.uk">www.status.co.uk</a>
Sensor configuration	Temperature range for (4 to 20) mA retransmission Sensor offset Burnout current	°C or °F °C or °F Upscale or downscale
Read live data	Temperature Output	°C or °F mA
Save/Open configuration	From file	

GENERAL	
<b>Function</b>	<b>Description</b>
Update time	500 ms
Response time	1 second + sensor lag
Start-up time	4 seconds (mA out < 4 mA during start up)
Warm up time	60 s to full accuracy
Default configuration	(0 to 100) °C, upscale burnout

ENVIRONMENTAL	
<b>Function</b>	<b>Description</b>
Ambient temperature	Operating/Storage (-40 to 85) °C Full accuracy only between (-30 to 75) °C
Ambient Humidity	Operating/Storage (10 to 90) %RH non-condensing
Protection	IP65
USB configuration ambient	(10 to 30) °C

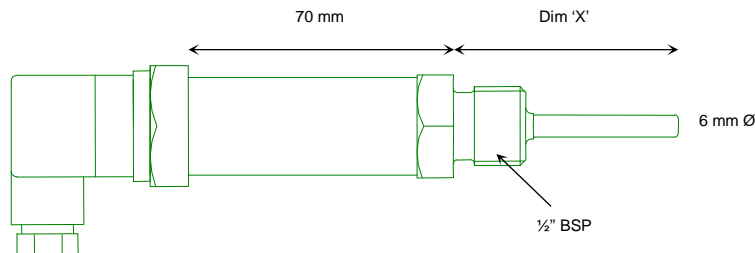
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MECHANICAL	
Function	Description
Mounting	½ inch BSP process thread
Probe diameter	6.0 mm
Connection	DIN connector screw terminal
Weight approximately	260 g

APPROVALS	
EMC	BS EN 61326
Ingress protection	BS EN 60529
RoHS	Directive 2011/65/EU

ORDER CODE		
	/ Probe length in mm	Probe options Dim X in mm
STA206	/50	Probe 50 mm
STA206	/100	Probe 100 mm
STA206	/150	Probe 150 mm
STA206	/custom length in mm	Probe mm

## MECHANICAL



ACCESSORIES	
Configuration software	USBSpeedLink (free of charge from <a href="http://www.status.co.uk">www.status.co.uk</a> )
Configuration device	USB-CONFIG-MKII
Head options	Please refer to <a href="http://www.status.co.uk">www.status.co.uk</a>
Probe options	Please refer to <a href="http://www.status.co.uk">www.status.co.uk</a>

To maintain full accuracy annual calibration is required contact [support@status.co.uk](mailto:support@status.co.uk) for details  
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