

SEM1605THV DIN RAIL WITH THERMISTOR I/P AND VOLTAGE O/P

- **ACCEPTS MULTIPLE THERMISTOR TYPES AND Pt1000, Pt500 SENSORS**

- **(0 to 10) VOLTAGE THREE WIRE OUTPUT**

- **USER OUTPUT TRIM (ZERO and SPAN)**

- **PC CONFIGURATION USING USB PORT**

- **LIVE DATA CAN BE VIEWED ON AN ANDROID PHONE OR TABLET**

- **INTRODUCTION**

The SEM1605THV is a DIN rail mounted Voltage Output temperature transmitter from Status Instruments. It has been designed to accept most common thermistor temperature sensor inputs together with Pt1000 and Pt500 RTD inputs and provide the user with a standard three wire (0 to 10) volt output signal. The output signal is linear to temperature.

Designed for ease of use, our latest USB interface is fitted for quick and easy configuration. Just connect a standard USB cable between the SEM1605THV and your PC. Our free configuration software will guide you through any changes you wish to make. To further help save time, the SEM1605THV does not need to be wired to a power supply during the configuration process.

➤ FEATURE HIGHLIGHTS

ACTIVE RANGE The SEM1605THV is provided with a user push-button ranging option, allowing adjustments at both 0 V and 10 V against a live input. The 'user adjust' function can be locked during configuration if not required. The state LED indicates out-of-range input during normal operation; during 'user adjust' it is also used to indicate the stage of adjustment.

(0 and 10) V TRIM The buttons can also be used for 0 V and 10 V trim adjustment to add small offsets to (0 or 10) V output.

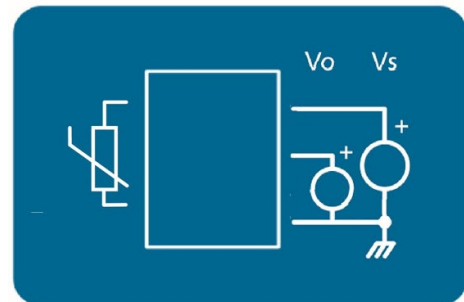
SENSOR REFERENCING The SEM1605THV sensor referencing, via the Windows based USB-Speedlink software, allows for close matching to a known reference sensor, eliminating possible sensor errors.

THERMISTOR SENSOR LIBRARY The Thermistor type required is loaded onto the SEM1605THV from a software library using the USB-Speedlink software. The sensor library can be added to as new sensors become available or are requested. Thermistor sensors with a resistance value up to 100 K Ohms can normally be accommodated.

USB PC CONFIGURATION The SEM1605THV is quick and easy to configure using a standard-type USB lead and the free-of-charge USBSpeedLink Windows software.

USB VIEW The SEM1605THV can be connected to an android phone or tablet using an OTG USB adaptor. Running a free App, the Android device can then be used to view live data from the SEM1605THV.

STABILITY The SEM1605THV DIN rail transmitter incorporates digital technology to ensure accurate low-drift performance.



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INPUT		SPECIFICATIONS @20°C
Type/ Function	Range/ Description	Accuracy/ Stability
Thermistor	See below *1, *2	Typically, $\pm 0.2\text{ }^{\circ}\text{C}$ $\pm 0.2\%$ of reading *3
Thermal drift	Zero at 20 °C	$\pm 0.02\%$ of range / °C
Minimum span	5 °C	
*1 Please refer to USBSpeedLink software and www.status.co.uk for complete up to data list 3KB (44005, 44030), 5KB (44007, 44034), 10KB (44016, 44036), 10KH (44006, 44031), 30KH (44008), 2252KB (44004, 44033), YSI_2_25B, YSI_10KB, P222KJ2, PS102J2, PS103G2, PS103J2, PS203J2, PS302J2, PS303J2, PS502J2, PS602J2, NTC10k b3435 Carel, Pt1000, Silicone sensors KYT, series		
*2 Custom thermistors available. Please contact sales@status.co.uk		
*3 Basic measurement accuracy includes the effects of calibration, linearisation and repeatability		

OUTPUT		SPECIFICATIONS @20°C
Type/ Function	Range/ Description	Accuracy/ Stability/ Notes
Three wire voltage	(0 to 10) V	(V output /2000) or 3 mV (Whichever is the greater)
Thermal drift	Zero at 20°C	1 mV/°C Typical (2 mV/°C Max)
Maximum output voltage	10.5 V	In high-burnout condition
Minimum output voltage	< 0.0 V	In low-burnout condition
Minimum output load	500 Ohms	2 mA @ 10V
Supply	(15 to 30) V DC	SELV
Power		< 1 W full power

USB USER INTERFACE		
Type/ Function	Range/ Description	Notes
Configuration hardware		USB A to mini B lead
Configuration software	USBSpeedLink	Download www.status.co.uk
Sensor configuration	Sensor type	Thermistor list
	Temperature range for (0 to 10) V Output	°C or °F Active or manual range
	Sensor offset	$\pm 10\text{ }^{\circ}\text{C}$ or $\pm 18\text{ }^{\circ}\text{F}$
	Burnout voltage	Upscale, downscale or user-set
Pre-set temperature (diagnostics)	Any within sensor range	°C or °F
Pre-set output voltage (diagnostics)	Any within output range	V
Tag		20 characters
Button function		Trim, active range, off
Read live data	Temperature Output	°C or °F V
Save/ open configuration		To/ from PC file

ANDROID USER INTERFACE		
Type/ Function	Range/ Description	Accuracy/ Stability/ Notes
Hardware	USB Leads	OTG plus A to Mini B
Software	USBViewLink	Download www.status.co.uk
Read live data	Input signal Output value	°C, °F V

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USER PUSH BUTTON INTERFACE		
Function	Description	
Active range	Range 0 Volt and 10 Volt points against live input	
User trim	Adjust at maximum and minimum input range value	Offset (0 V) and span (10 V) adjustment

GENERAL	
Function	Description
Response time	500 ms to 70% of final value
Start-up time	8 s
Warm-up time	120 s to full accuracy
Default configuration	YSI 10KB (-55 to 205) °C, upscale burnout
LED (red)	If Voltage output < -0.1% or > 100.1 % LED ON
Protection	Reverse connection

ENVIRONMENTAL	
Function	Description
Ambient temperature	Operating (-30 to 70) °C Storage (-40 to 85) °C
Ambient humidity	Operating/Storage (10 to 90) %RH non-condensing
Protection requirement	Device must be installed in an enclosure offering >IP65 Protection
USB configuration ambient	(10 to 30) °C

MECHANICAL	
Function	Description
Dimensions	12.5 mm width, 56.4 mm depth from rail, 90 mm height
Enclosure	DIN rail mount
Material	Polyamide 6.6 self-extinguishing UL94-HB: Grey
Connections	Screw terminals 2.5 mm wire maximum
Weight	60 g approximate

APPROVALS	
EMC	BS EN 61326: Note – Compliance tested with 30 m input wires
Ingress protection	BS EN 60529
RoHS Directives 2 & 3	2011/65/EU & EU 2015/863, and the UK designated standards

ORDER CODE	SEM1605THV
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ACCESSORIES	
USB configuration software	USBspeedLink free of charge from www.status.co.uk
Android live data view	USBView free of charge from www.status.co.uk
Probe options	Refer to www.status.co.uk
USB Leads	Contact sales@status.co.uk

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Mechanical
Dimensions in mm

