

RTD DIN RAIL TRANSMITTER

SEM1605/P

- COST EFFECTIVE RTD TRANSMITTER
- PT100, Cu100, Cu53, Ni100, Ni120
- (4 to 20) mA TWO WIRE OUTPUT
- CALIBRATE AGAINST LIVE INPUT VALUE
- USER TRIM OUTPUT
- SIMPLE CONFIGURATION VIA USB PORT



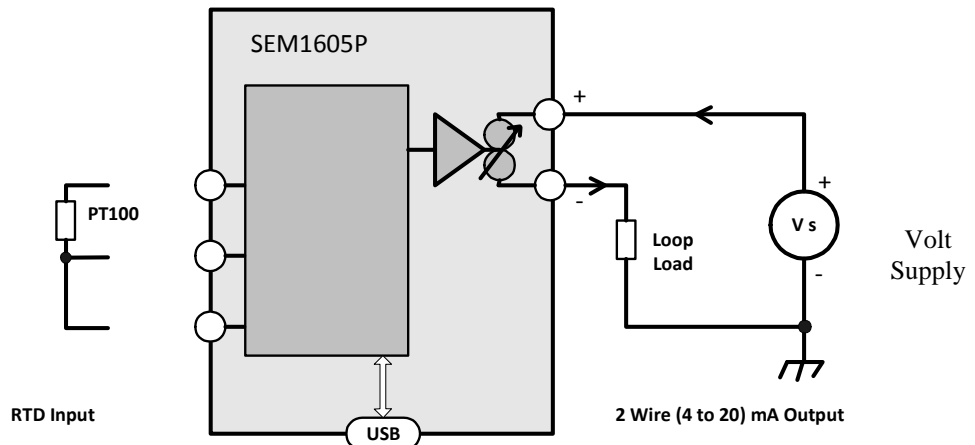
➤ INTRODUCTION

The SEM1605P is the next generation DIN rail mounted temperature transmitter from Status Instruments. It has been designed to accept most common RTD temperature sensor inputs and provide the user with a standard two wire (4 to 20) mA output signal. All temperature ranges are 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 SEM1605P and your PC. Our free configuration software, will guide you through any changes you wish to make. To further help save time, the SEM1605P does not need to be wired to a power supply during the configuration process, it is powered via the USB interface from your PC. The following parameters are configurable :-

INPUT TYPE	LOW RANGE	HIGH RANGE	UNITS	BURNOUT	PUSH BUTTON
PT100 003851 IEC 00391 IPTS 00392 IPTS 00393 ITS	Input @ 4 mA	Input @ 20 mA	°F, °C	Up/Scale Down/Scale	Adjust or Range or off
Ni 100			°F, °C	Up/Scale Down/Scale	
Ni 120			°F, °C	Up/Scale Down/Scale	
Cu 53 , Cu 100			°F, °C	Up/Scale Down/Scale	

The SEM1605P is also provided with user push button ranging, allowing adjustments at both 4 mA and 20 mA for a live value. 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. The buttons can also be used for 4 mA and 20 mA current trim adjustment to add small offsets to (4 or 20) mA O/P.



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➤ SPECIFICATIONS @ 20 °C

ELECTRICAL SENSOR INPUTS		
Input Type	Range	Accuracy / Stability
Excitation 660 uA Lead resistance (0 to 20) Ω (2 or 3 Wire connection)		
Sensors		
PT100 (IEC)	(-200 to 850) °C	0.2°C + (°0.05% of reading) (Plus sensor)
Pt100 0.391	(-200 to 630) °C	
Pt100 0.392	(-200 to 630) °C	
Pt100 0.393	(-200 to 630) °C	
Ni120	(-80 to 260) °C	
Cu53	(-50 to 180) °C	
Cu100	(-80 to 260) °C	
Ni120	(-80 to 260) °C	
Thermal Stability		

OUTPUT TWO WIRE (4 to 20) mA LOOP		
Range	(4 to 20) mA	
Range Extremes	(3.8 to 21.5) mA	
Accuracy	(mA output / 2000) or 5 uA (Whichever is the greater)	
Supply Voltage	(10 to 30) V DC	
Loop Effect	± 0.2 uA / V	
Thermal Stability	± 2 uA / °C	
Max Load SEM1605P	[(Vsupply-10)/20] K Ohms (Example 700 Ohms @ 24 V)	

USB USER INTERFACE		
Type/options/function	Description	Notes
USB 2.0	Micro B	
Baud Rate	19.2 Kbaud	
Sensor Configuration	Select Sensor Type Trim Sensor Offset Preset sensor value (Diagnostics)	RTD ± 10 °C (± 18 °F)
Loop	Set Range Active Range Set Burnout Preset output loop current (Diagnostics)	
Live data	Read Sensor Temperature Percentage output Read Loop Current	

STATE LED	
Type	Red LED
Action	If mA output < -0.1% or > 100.1 % LED ON
AMBIENT	
Ambient	-30 to 70 °C

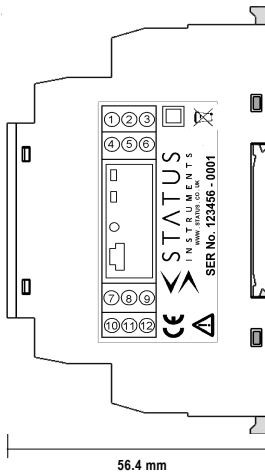
BUTTONS OUTPUT ADJUST / ACTIVE RANGE	
Off	Locked
Adjust Output	Adjust 4 mA when in range (3.8 to 6.0) mA , 20mA when in range (18 to 21.5) mA
Active Range	Range 4mA and 20 mA points against live input

MECHANICAL	
Connection	Screw terminals
Enclosure	DIN RAIL mounted 6 terminal
Weight	Approx. 60 g

APPROVALS	
EMC	EN BS 61326 Industrial emissions

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GENERAL	
Update Response Times	0.5 Second update 1 second response
Warm up time	1 minute
Start-up time	8 seconds
Protection	Reverse connection
Enclosure	Device must be installed in an enclosure offering >IP65 Protection
AMBIENT	
Ambient	-30 to 70 °C
Storage	-40 to 85 °C



REFER TO INSTRUCTION MANUAL BEFORE USE



MECHANICAL DETAIL

Material Polymide 6.6 self extinguishing
 Terminals Screw terminal
 Cable 2.5 mm Max
 Colour Grey

ORDER CODE : SEM1605/P

ASSOCIATED PRODUCTS

USB CABLE A/M TO MINI B/M
 USB Link Software

ORDER CODES

48-200-0001-01
 FOC @ www.status.co.uk Software