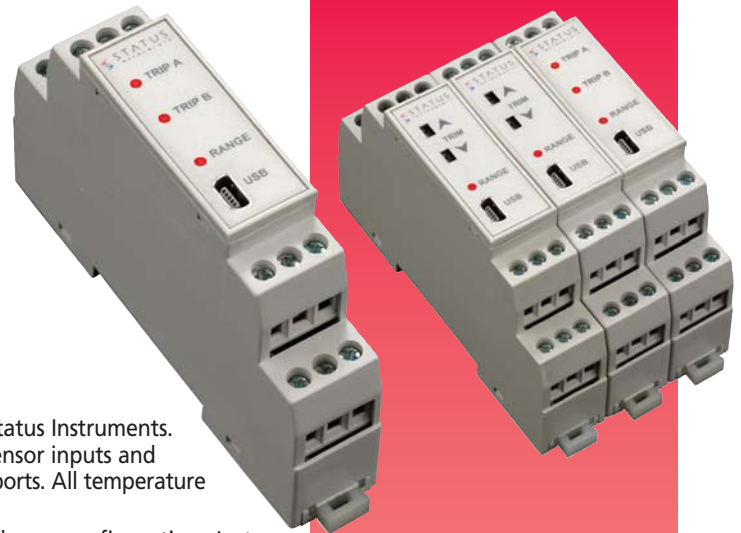


# UNIVERSAL INPUT DIN RAIL DUAL TRIP ALARM

## SEM1630

- SIMPLE CONFIGURATION VIA USB PORT
- UNIVERSAL PT100, THERMOCOUPLE, mV, mA Input
- INPUT/OUTPUT ISOLATION
- DUAL RELAY OUTPUTS 250VAC, 1 AMP
- RELAYS ISOLATED FROM EACH OTHER
- 10 YEAR WARRANTY



## INTRODUCTION

The SEM1630 is a new generation DIN rail mounted trip amplifier from Status Instruments. It has been designed to accept most common process and temperature sensor inputs and provide the user with a dual trip output. Isolation is provided on all three ports. 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 SEM1630 and your PC. Using our free configuration software, your PC will automatically upload the existing configuration data and guide you through any changes you wish to make. To further help save time, the SEM1630 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               | UNITS  | TRIP A Level | TRIP A Setpoint | TRIP A Hysteresis | TRIP B Level | TRIP B Setpoint | TRIP B Hysteresis |
|--------------------------|--------|--------------|-----------------|-------------------|--------------|-----------------|-------------------|
| RTD: Pt100               | °F, °C | High or Low  | Set In Units    | Set In Units      | High or Low  | Set In Units    | Set In Units      |
| T/C: K, J, E, N, T, R, S | °F, °C |              |                 |                   |              |                 |                   |
| mV                       | mV     |              |                 |                   |              |                 |                   |
| mA                       | mA     |              |                 |                   |              |                 |                   |

The range LED indicates out of range input during normal operation. Alarm LEDs are provided for each trip.

## INPUTS

| INPUT | RANGE          | ACCURACY (Note 1)      | STABILITY      | O/C | CJ Note 3 | SENSOR EXCITATION (Note 4) | IMPEDANCE     |
|-------|----------------|------------------------|----------------|-----|-----------|----------------------------|---------------|
| Pt100 | -328 to 1562°F | ±0.18°F/ ±0.05% of Rdg | ±0.005% of FSR | N/A | N/A       | <450µA                     | N/A           |
| K     | -328 to 2498°F | ±0.1% of FSR ±0.9°F    | ±0.01% of FSR  | Yes | Yes       | N/A                        | 1 MΩ (Note 5) |
| J     | -148 to 2192°F |                        |                |     |           |                            |               |
| E     | -148 to 1832°F |                        |                |     |           |                            |               |
| N     | -292 to 2372°F |                        |                |     |           |                            |               |
| T     | -148 to 752°F  |                        |                |     |           |                            |               |
| R     | 14 to 3200°F   |                        |                |     |           |                            |               |
| S     | 14 to 3200°F   |                        |                |     |           |                            |               |
| mV    | -40 to 75mV    | ±0.04mV                | ±0.01% of FSR  | N/A | N/A       | N/A                        | 2.7R (Note 6) |
| mA    | -10 to 25mA    | ±0.008mA               | ±0.01% of FSR  | N/A | N/A       | N/A                        | 2.7R (Note 6) |

Key: Rdg = Reading; FSR = Full Scale Range; O/C = Programmable Open Circuit Sensor Detect; CJ = Cold Junction Error

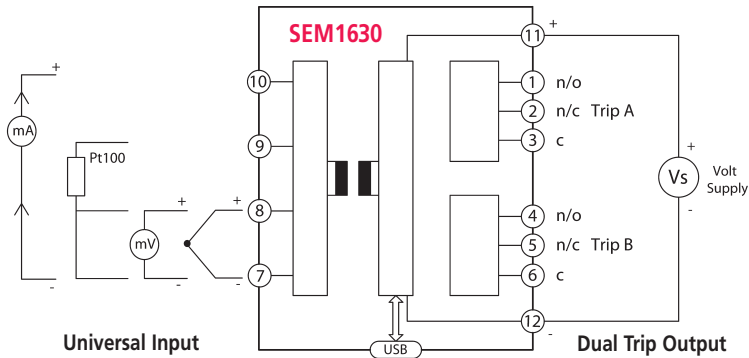
- Notes:
1. Accuracy for Pt100 and T/C do not include sensor and cold junction errors.
  2. Only over the range 1472 to 2912°F.
  3. Cold junction range: -4 to 158°F, Accuracy: ±0.9°F, Tracking: ±0.09°F.
  4. Pt100 Input Maximum lead resistance: 20R, Lead effect: 0.027°F/Ω
  5. Impedance – not including 0.2µA open circuit detect bias current effect.
  6. Maximum current over load: ±100mA

## GENERAL

**Isolation** Input to output tested at 500VDC  
**Ambient** Operating: -4 to 158°F, 10 to 95% RH non-condensing. Storage: -40 to 185°F  
**Approvals** CE tested to BS EN 61326

## MECHANICAL

**Material** Grey Polyimide 6.6, self extinguishing  
**Terminals** Screw terminals  
**Cable** 2.5 mm maximum



## SEM1630 OUTPUT

**Type** Dual Form C relay contacts.  
**Supply** 24VDC,  $\pm 5\%$  @ 40mA Max  
**Response Time** <500ms to reach 95% of final value; Start up time: <3s  
**Calibration Rating** 250 VAC rms @ 1 Amp; 30 VDC @ 1 Amp resistive load.  
**Trip Type** Individual trips A&B may be set at high or low level, full range setpoint plus adjustable hysteresis.  
**Ranges** Setpoint programmed in units, covering full range of input.  
**Hysteresis** Set in units.  
**Protection** Reverse connection and over-voltage protection. Max over-voltage current: 100mA

## ORDER CODES:

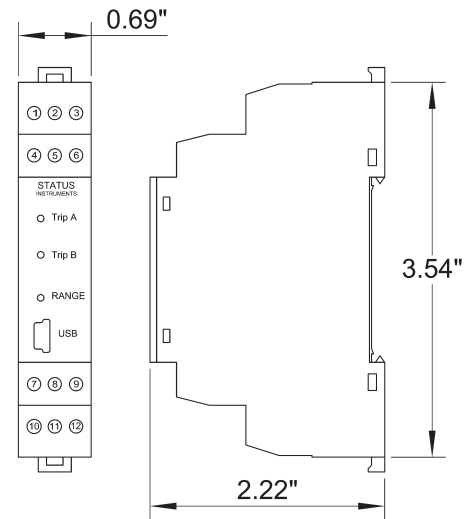
SEM1630 UNIVERSAL INPUT / DUAL TRIP ALARM

### Accessories

USB CABLE USB CABLE A/M TO MINI B/M  
M-CONFIG SOFTWARE (FREE FROM INTERNET SITE)

### Associated Products

SEM1603P / TC / I LOW COST SINGLE INPUT DIN RAIL TRANSMITTER  
SEM1610 UNIVERSAL INPUT / CURRENT OUTPUT  
SEM1620 UNIVERSAL INPUT / VOLTAGE OUTPUT



PHYSICAL DIMENSIONS

Local Representation

**STATUS**  
INSTRUMENTS

PO Box 548, 456 Park Ave., Scotch Plains, NJ 07076  
Phone: (800) 700-3272 Fax: (800) 700-5468 (US & CA only)  
Email: sales@statinst.com Web: www.statinst.com

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