SEM1633 USER GUIDE ⚠ **To avoid the risk of electric shock and fire, please read this instructions document fully before use.**

DIN rail mounted RTD input / dual trip relay change over contacts. Intended use Industrial process monitoring and control.

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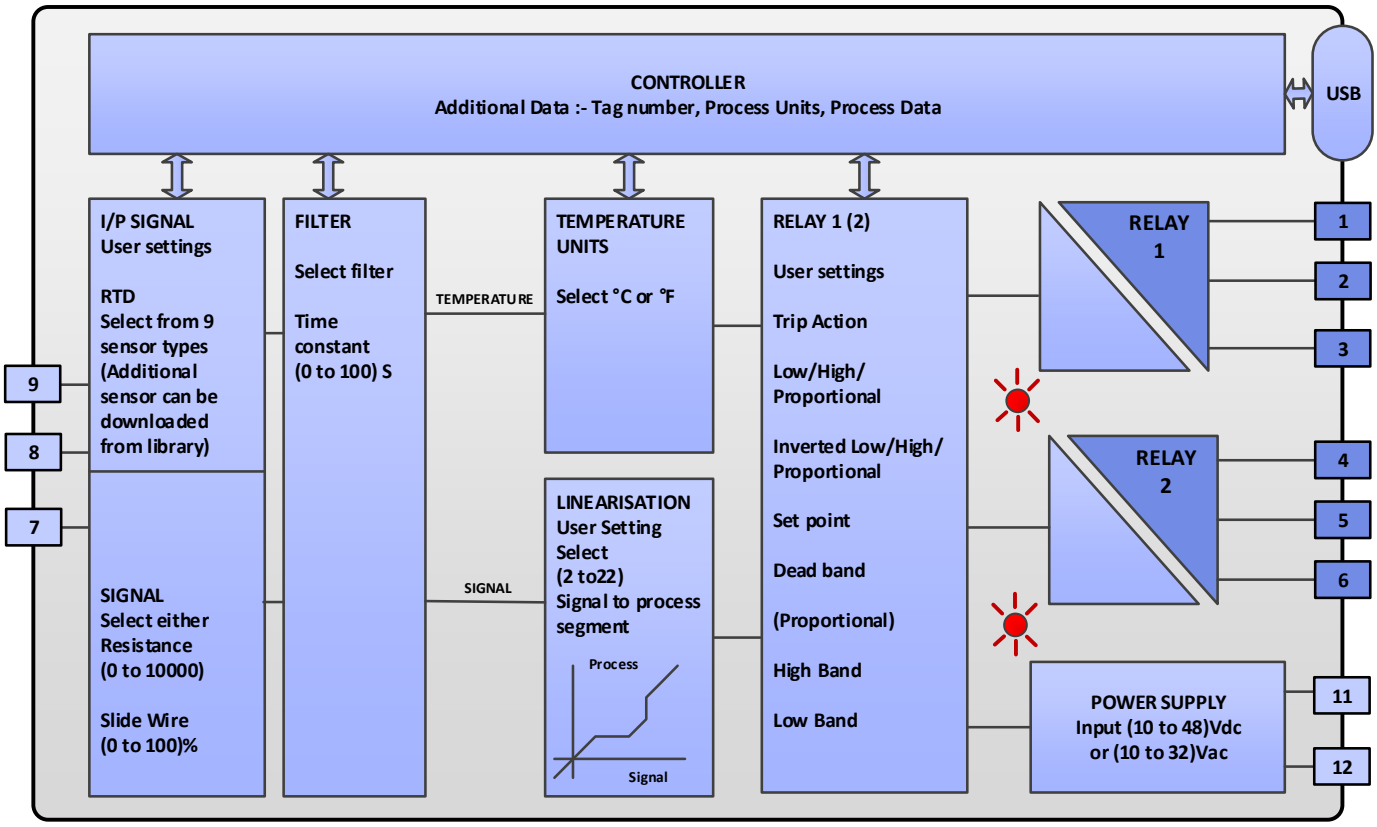
IMPORTANT SAFETY REQUIREMENTS.

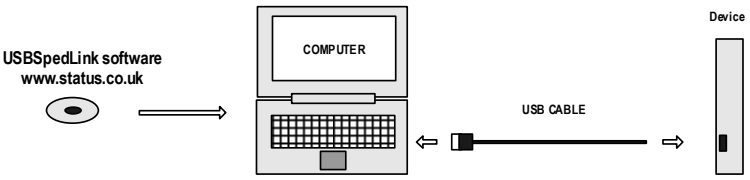
Max Rating Terminals (1 to 6) Trip Contacts	250 Vac 50/60 Hz @ 1 A; 30 Vdc @ 1 A
Max Rating Terminals (11 to 12) Supply	(10 to 32) Vac 50/60 Hz; (10 to 48) Vdc Power < 1 W
Max Rating Terminals (7 to 10) Signal	3 Vdc
Isolation Terminals (1 to 6) to Terminals (7 to 12)	3750 V

- This equipment is suitable for environment Installation category II pollution degree 1 and is classed as "PERMANENTLY CONNECTED EQUIPMENT". The equipment is intended for industrial and commercial application only and not suitable for domestic or medical use.
- The equipment must be mounted inside an enclosure that provides protection >= IP65. In NORMAL USE, the equipment will only be accessed for maintenance by qualified personnel. Please ensure the equipment is mounted vertically with terminals (10 - 12) at the bottom. This will provide maximum ventilation. This equipment may generate heat, ensure the enclosure size is adequate to dissipate heat. Be sure to consider any other equipment inside the enclosure.
- The equipment surfaces may be cleaned with a damp cloth. Use a mild detergent/water on a damp cloth. Ensure the supply and trip circuits are off before cleaning and on completion of cleaning the equipment is completely dry before the supply is turned back ON.
- The equipment contains no serviceable parts, or internal adjustments. No attempt must be made to repair the product. Faulty equipment must be returned to the supplier for repair.
- To keep the safety distances, the relay contacts on the device must not be connected to both hazardous and non-hazardous voltage.
- This equipment must be installed by a qualified person. All electrical wiring must be carried out in accordance with the appropriate regulations for the place of installation.
- DC supply must be derived from a local supply and not a distribution system.
- To maintain CE EMC requirements, input, DC supply and voltage output wires must be less than 30 metres.
- Relay 1, 2 outputs are isolated from each other. Max switching current (1 A @ 240 Vac, 1 A @ 30 Vdc) Non-Inductive. Fuse relay circuits with a suitable 2A (T) fuse installed close the equipment. If a HAZARDOUS VOLTAGE is being switched then an isolation switch must also be installed close to the equipment with the off position clearly marked.
- Receipt and unpacking. Please inspect packaging and instrument thoroughly for any signs of transit damage. If damage is present do not use the equipment safety protection may be affected. Please return damaged equipment to supplier.
- USB configuration can be performed without the supply being connected. For safety reasons, use a 24 Vdc for functional test of unit trips prior to fixed installation. The following operations should only be carried out on a disconnected device and under ESD safe conditions: General mounting, connection and disconnection of wires.

Supply		(10 to 32) Vac 50/60 Hz or (10 to 48) Vdc Power < 1 W
Input (SELV)		RTD sensor, Slide Wire Sensor
Relay contacts	(form C)	250 Vac 50/60 Hz @ 1 A or 30 Vdc @ 1 A (non-inductive loads) isolation 3.75 KV to all other ports
Ambient		(-20 to 70) °C Approvals EN61010_1, EN61326

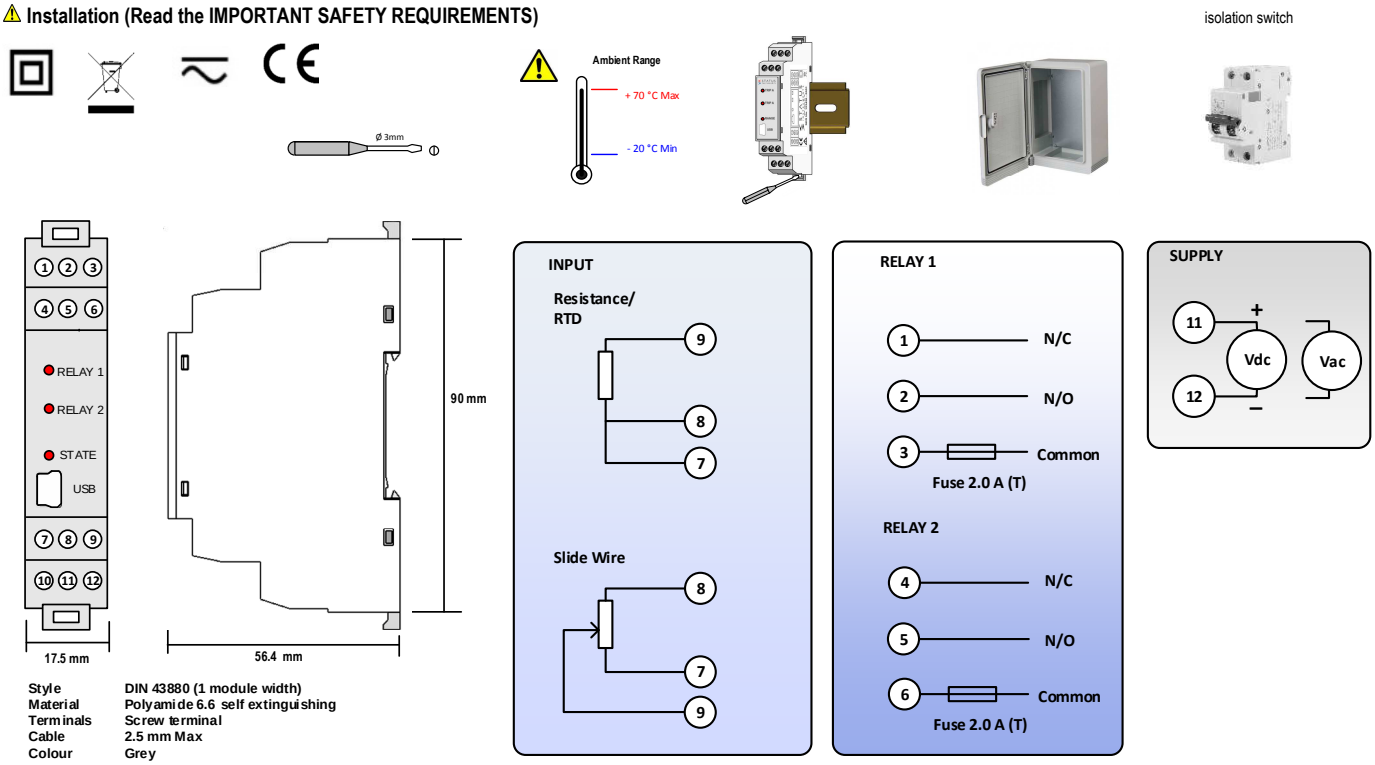


⚠ **Configuration (Read the IMPORTANT SAFETY REQUIREMENTS)** During configuration the equipment takes its power from the USB port, therefore no power connection is required. The equipment can be configured whilst powered but the computer used must be isolated from the supply earth to avoid grounded earth loop effects. Refer to configuration help guide for further information on configuration methods.



Default settings; Input PT100, no filter, relay 1 and 2 set high 50 °C, 0.1 °C dead band, tag text = Tag

⚠ **Installation (Read the IMPORTANT SAFETY REQUIREMENTS)**



Style	DIN 43880 (1 module width)
Material	Polyamide 6.6 self extinguishing
Terminals	Screw terminal
Cable	2.5 mm Max
Colour	Grey

Input connections for cable length >3 metres use screen or twisted pair cables. PT100 connection all wires must be equal length (resistance). Maximum cable run 30 metres.

Relay Connections – relays 1 and 2 are isolated from each other. As stated in the IMPORTANT SAFETY REQUIREMENTS the relay circuit must be fused with a 2 A (T) fuse and provision provided to isolate the circuit when hazardous voltages are being switched.

DC supply maximum cable run 30 metres.

STATE LED

OK (GREEN)

SENSOR ERROR (RED)

ALARM LEDS

OFF

ON (RED)

POWER OFF

When power is off relays go into alarm state.

RELAY ACTIONS

KEY
SP = Set point
DB = Dead Band
HB = High Band
LB = Low Band

RELAY ON

RELAY OFF