

## Super-mini Two-wire Signal Conditioners T-UNIT

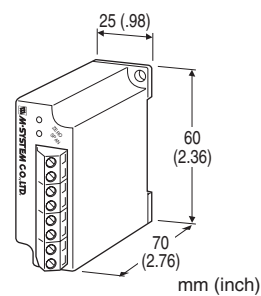
### RTD TRANSMITTER

#### Functions & Features

- Accepting direct input from an RTD and providing a standard 4 - 20 mA DC signal
- Linearization
- Burnout protection
- Monitor terminals
- Highdensity mounting

#### Typical Applications

- Converting into standard output



### MODEL: TR-[1][2]

#### ORDERING INFORMATION

- Code number: TR-[1][2]
- Specify a code from below for each of [1] and [2].  
(e.g. TR-4/BL)
- Temperature range (e.g. 0 - 100°C)

#### [1] INPUT RTD (2- or 3-wire)

1: JPt 100 (JIS'89)

(Usable range: -200 to +500°C, -328 to +932°F; min.span: 50°C, 90°F)

3: Pt 100 (JIS'89)

(Usable range: -200 to +650°C, -328 to +1202°F; min.span: 50°C, 90°F)

4: Pt 100 (JIS'97, IEC)

(Usable range: -200 to +650°C, -328 to +1202°F; min.span: 50°C, 90°F)

5: Pt 50 Ω (JIS'81)

(Usable range: -200 to +500°C, -328 to +932°F; min.span: 100°C, 180°F)

Note: Consult M-System for 2-wire RTD

#### [2] OPTIONS

##### Burnout

blank: Upscale burnout

/BL: Downscale burnout

#### GENERAL SPECIFICATIONS

**Construction:** Stand-alone; terminal access at the front

**Connection:** Euro type terminal

(applicable wire size: 0.25 to 1.5 mm<sup>2</sup>, stripped length 7 mm)

**Housing material:** Flame-resistant resin (black)

**Zero adjustment:** -5 to +5 % (front)

**Span adjustment:** 95 to 105 % (front)

**Linearization:** Standard

#### INPUT SPECIFICATIONS

**Maximum leadwire resistance**

3-wire Pt 100: 5 Ω per wire

3-wire Pt 50 Ω: 2.5 Ω per wire

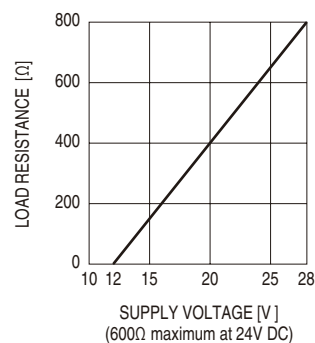
**Sensing current:** 1 mA

#### OUTPUT SPECIFICATIONS

**Output:** 4 - 20 mA DC

**Load resistance vs. supply voltage:**

Load Resistance (Ω) = (Supply Voltage (V) - 12 (V)) ÷ 0.02 (A) (including leadwire resistance)



#### INSTALLATION

**Supply voltage:** 12 - 28 V DC

**Operating temperature:** -5 to +60°C (23 to 140°F)

**Operating humidity:** 30 to 90 %RH (non-condensing)

**Mounting:** Surface or DIN rail

**Weight:** 120 g (0.26 lb)

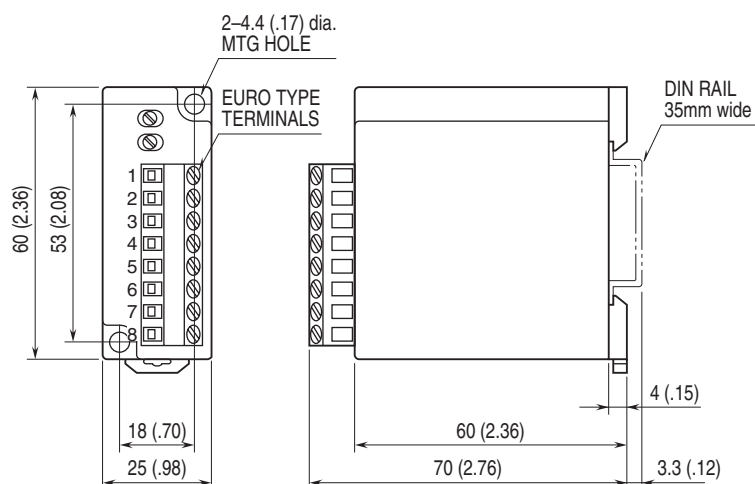
#### PERFORMANCE in percentage of span

**Accuracy:** ±0.2 %

**Temp. coefficient:** ±0.02 %/°C (±0.01 %/°F)

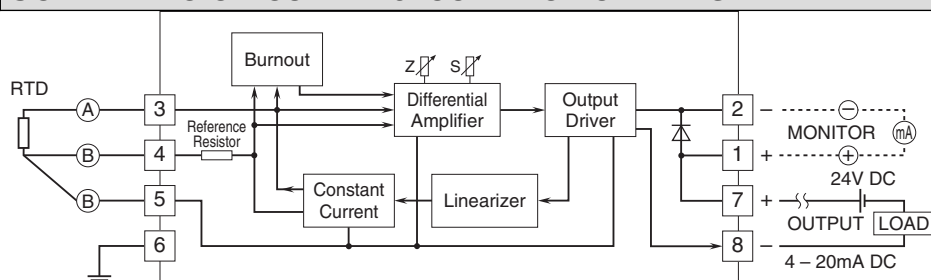
**Response time:** ≤ 0.5 sec. (0 - 90 %)

## EXTERNAL DIMENSIONS & TERMINAL ASSIGNMENTS unit: mm (inch)



•When mounting, no extra space is needed between units.

## SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



Specifications are subject to change without notice.