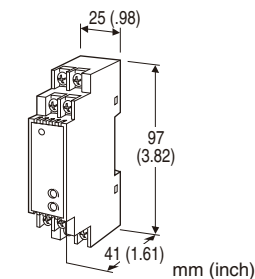


Super-mini Two-wire Terminal Block Signal Conditioners B5-UNIT

RTD TRANSMITTER

Functions & Features

- Accepts direct input from a RTD and provides an isolated 4 - 20 mA signal
- Linearization and burnout
- Monitor terminals
- High-density mounting
- Power LED
- CE marking



MODEL: B5RS-[1][2]

ORDERING INFORMATION

- Code number: B5RS-[1][2]
- Specify a code from below for each [1] and [2].
(e.g. B5RS-4/K/BL)
- Temperature range (e.g. 0 - 500°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 +850°C, -328 to +1562°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)
- 6:** Ni 508.4 Ω
(Usable range: -50 to +200°C, -58 to +392°F; min.span: 30°C, 54°F)
- 0:** Specify

[2] OPTIONS (multiple selections)

- Response Time (0 - 90 %)**
blank: Standard (≤ 0.5 sec.)
/K: Fast Response (Approx. 25 msec.)
- Burnout**
blank: Upscale burnout

/BL: Downscale burnout

GENERAL SPECIFICATIONS

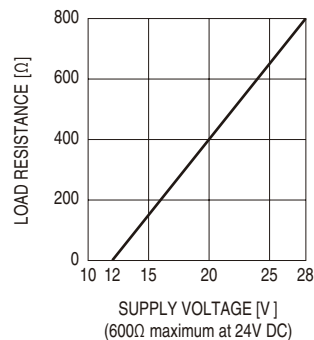
- Construction:** Terminal block
Connection: M3.5 screw terminals (torque 0.8 N·m)
Screw terminal: Nickel-plated steel
Housing material: Flame-resistant resin (black)
Isolation: Input to output
Zero adjustment: -1 to +1 % (front)
Span adjustment: 98 to 102 % (front)
Burnout: Upscale standard;downscale optional
Linearization: Standard
Power LED: Orange light turns on when the power is supplied.

INPUT SPECIFICATIONS

- INPUT:** 2- or 3-wire RTDs
Maximum leadwire resistance: 20 Ω per wire (3-wire)
Sensing current: 0.7 mA (Pt); 0.35 mA (Ni 508.4 Ω)

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: -40 to +80°C (-40 to +176°F)
Operating humidity: 0 to 90 %RH (non-condensing)
Mounting: DIN rail
Weight: 60 g (2.1 oz)

PERFORMANCE in percentage of span

- Accuracy:** ±0.2 %
Temp. coefficient: ±0.02 %/°C (±0.01 %/°F)
Burnout response: ≤ 10 sec.
Insulation resistance: ≥ 100 MΩ with 500 V DC

Dielectric strength: 2000 V AC @1 minute
(input to output to ground)

STANDARDS & APPROVALS

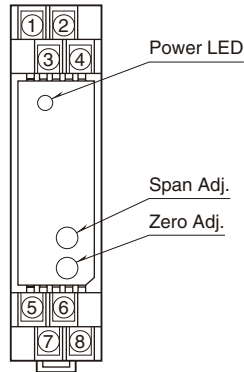
CE conformity:

EMC Directive (2004/108/EC)

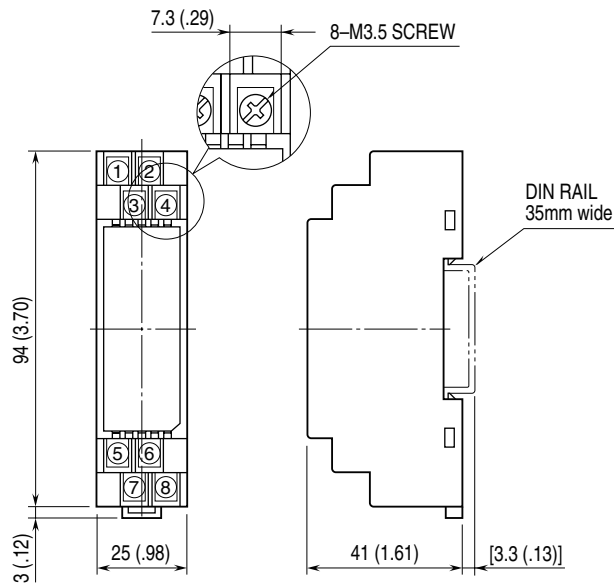
EMI EN 61000-6-4: 2007

EMS EN 61000-6-2: 2005

EXTERNAL VIEW

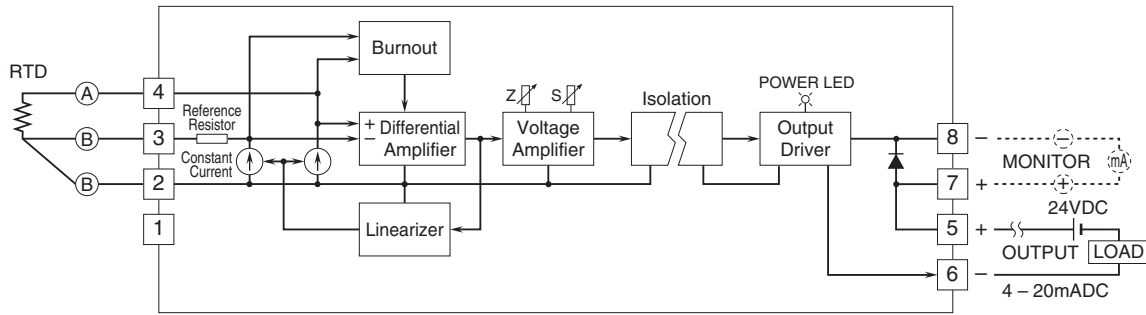


EXTERNAL DIMENSIONS & TERMINAL ASSIGNMENTS unit: mm (inch)



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

SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



Specifications are subject to change without notice.