

Space-saving Two-wire Signal Conditioners B-UNIT

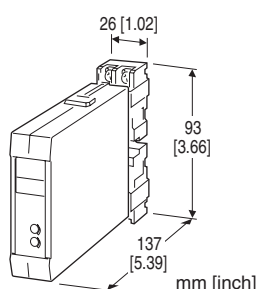
RTD TRANSMITTER

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: BR-[1][2]

ORDERING INFORMATION

- Code number: BR-[1][2]
- Specify a code from below for each of [1] and [2].
(e.g. BR-4/BL/Q)
- Temperature range (e.g. 0 – 500°C)
- Specify the specification for option code /Q
(e.g. /C01/S01)

[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 us for 2-wire RTD

[2] OPTIONS (multiple selections)

Burnout

blank: Upscale burnout

/BL: Downscale burnout

Other Options

blank: none

/Q: Option other than the above (specify the specification)

SPECIFICATIONS OF OPTION: Q (multiple selections)

COATING (For the detail, refer to our web site.)

/C01: Silicone coating

/C02: Polyurethane coating

/C03: Rubber coating

TERMINAL SCREW MATERIAL

/S01: Stainless steel

GENERAL SPECIFICATIONS

Construction: Plug-in

Connection: M3.5 screw terminals (torque 0.8 N·m)

Screw terminal: Nickel-plated steel (standard) or stainless steel

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

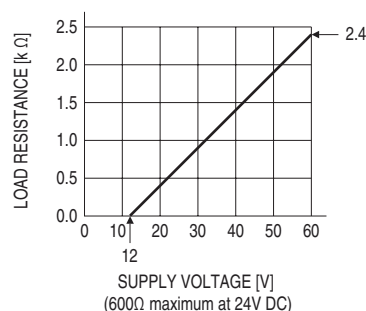
Sensing current: 1 mA

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 – 60 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; Standard Rack Mounting
Frame BX-16H available

Weight: 150 g (0.33 lb)

PERFORMANCE in percentage of span

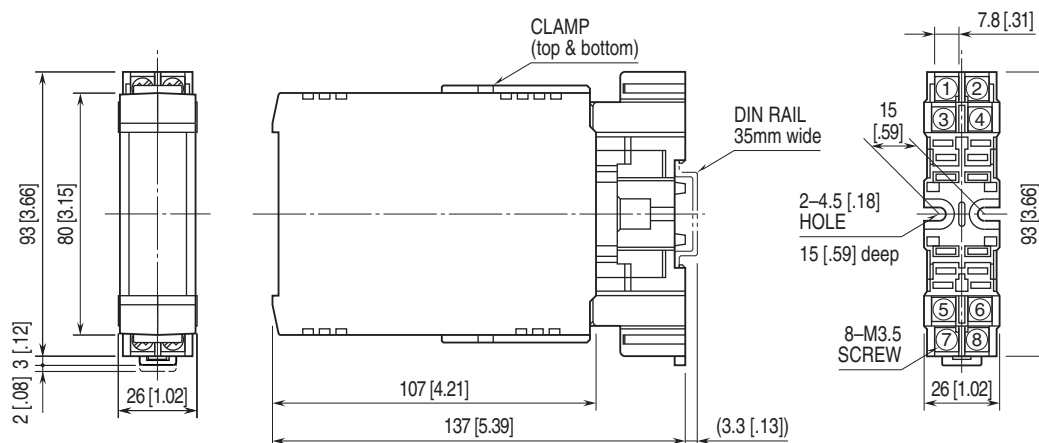
Accuracy: $\pm 0.2\%$

Temp. coefficient: $\pm 0.05\%/^{\circ}\text{C}$ ($\pm 0.03\%/^{\circ}\text{F}$)

Response time: ≤ 0.5 sec. (0 - 90 %)

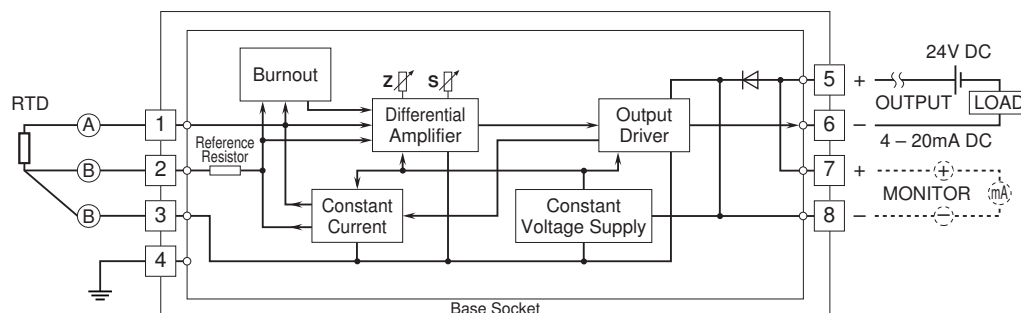
Burnout response: Approx. 1 sec.

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.