

## Space-saving Two-wire Signal Conditioners B-UNIT

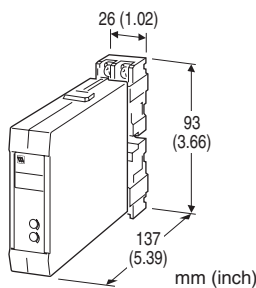
### RTD TRANSMITTER

#### 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/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

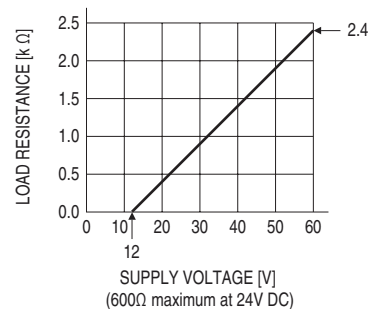
### OUTPUT SPECIFICATIONS

**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

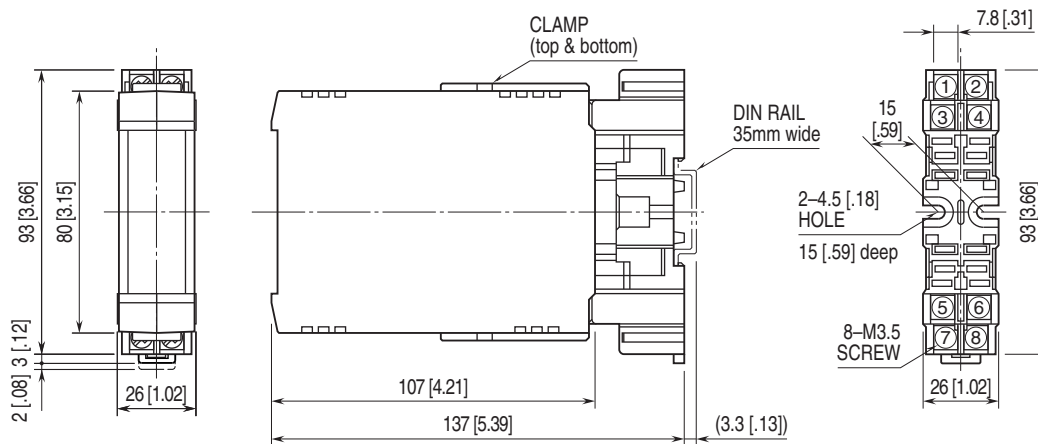
Accuracy:  $\pm 0.2\%$

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

Response time:  $\leq 0.5$  sec. (0 - 90 %)

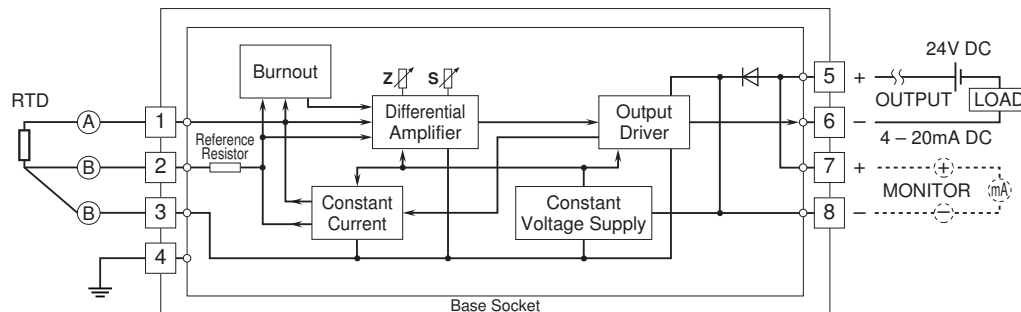
Burnout response: Approx. 1 sec.

## 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.