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

RTD TRANSMITTER

MODEL **BR**

MODEL & SUFFIX CODE SELECTION

BR–❑❑

MODEL

INPUT RTD (2- or 3-wire)

1 : JPt 100 (JIS '89)
3 : Pt 100 (JIS '89)
4 : Pt 100 (JIS '97, DIN, IEC751)
5 : Pt 50Ω (JIS '81)

OUTPUT

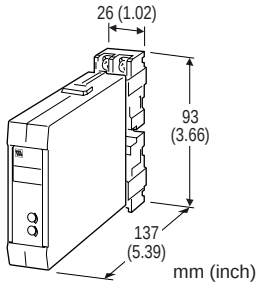
4 – 20mA DC

SUPPLY VOLTAGE

12 – 60V DC

OPTIONS

/BL : Downscale burnout



Functions & Features

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

Typical Applications

• Converting into standard output

ORDERING INFORMATION

Specify code number and variables.

•**Code number** (e.g. BR-4)
•**Temperature range** (e.g. 0 – 500°C)

GENERAL SPECIFICATIONS

Construction: plug-in
Connection: M3.5 screw terminals
(nickel-plated steel; torque ≤0.8 N·m)
Housing material: flame-resistant resin (black)
Front adjustments: zero and span; ±5%
Burnout protection: upscale standard; downscale optional
Linearization: standard

INPUT & OUTPUT

■**INPUT**: 2- or 3-wire RTDs

Maximum leadwire resistance

3-wire Pt 100Ω: 5Ω per wire
3-wire Pt 50Ω: 2.5Ω per wire

Sensing current: 1mA

Temperature range

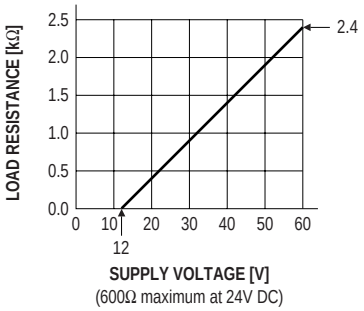
RTD	USABLE RANGE		MIN. SPAN	
	°C	°F	°C	°F
JPt 100 (JIS '89)	-200 to +500	-328 to +932	50	90
Pt 100 (JIS '89)	-200 to +650	-328 to +1202	50	90
Pt 100 (JIS '97/DIN/IEC)	-200 to +650	-328 to +1202	50	90
Pt 50Ω (JIS '81)	-200 to +500	-328 to +932	100	180

■**OUTPUT**: 4 – 20mA DC

Load resistance vs. supply voltage:

$$\text{Load Resistance } (\Omega) = \frac{\text{Supply Voltage (V)} - 12\text{ (V)}}{0.02\text{ (A)}}$$

(including leadwire resistance)



INSTALLATION

Supply voltage: 12 – 60V 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
Dimensions: W26×H93×D137 mm (1.02"×3.66"×5.39") See General Spec. Sheet Figure A.
Weight: 150 g (0.33 lbs)
Terminal assignment: See General Spec. Sheet Figure B-1.

PERFORMANCE in percentage of span

Accuracy: ±0.2%
Temp. coefficient: ±0.05%/°C (±0.03%/°F)
Response time: ≤0.5 seconds (0 – 90%)
Burnout response: approx. 1 second

SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM