

Space-saving Two-wire Signal Conditioners B-UNIT

SIGNAL TRANSMITTER

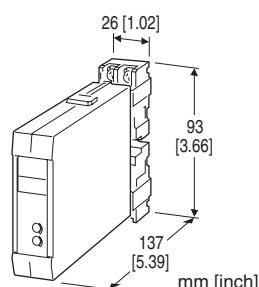
(non-isolated)

Functions & Features

- Converts a DC input into a standard 4 – 20 mA DC signal
- Monitor terminals
- High-density mounting

Typical Applications

- mV, voltage and current scaling



MODEL: BV-[1][2]

ORDERING INFORMATION

- Code number: BV-[1][2]

Specify a code from below for each of [1] and [2].

- (e.g. BV-6/Q)
- Special input range (For codes Z & 0)
- Specify the specification for option code /Q (e.g. /C01/S01)

[1] INPUT

Current

- A: 4 – 20 mA DC (Input resistance 250 Ω)
- B: 2 – 10 mA DC (Input resistance 500 Ω)
- C: 1 – 5 mA DC (Input resistance 1000 Ω)
- D: 0 – 20 mA DC (Input resistance 50 Ω)
- E: 0 – 16 mA DC (Input resistance 62.5 Ω)
- F: 0 – 10 mA DC (Input resistance 100 Ω)
- G: 0 – 1 mA DC (Input resistance 1000 Ω)
- H: 10 – 50 mA DC (Input resistance 100 Ω)
- Z: Specify current (See INPUT SPECIFICATIONS)

Voltage

- 2: 0 – 100 mV DC (Input resistance approx. 100 kΩ)
- 3: 0 – 1 V DC (Input resistance approx. 1 MΩ)
- 4: 0 – 10 V DC (Input resistance approx. 2 MΩ)
- 5: 0 – 5 V DC (Input resistance approx. 1 MΩ)
- 6: 1 – 5 V DC (Input resistance approx. 1 MΩ)
- 0: Specify voltage (See INPUT SPECIFICATIONS)

[2] OPTIONS

blank: none

/Q: With options (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)

INPUT SPECIFICATIONS

■ DC Current:

Shunt resistor attached to the input terminals (0.5 W)

Specify input resistance value for code Z.

■ DC Voltage: 0 – 300 V DC

Minimum span: 0.1 V

Offset: Max. 0.25 times span

Input resistance

Span 0.1 – 1 V: Approx. 100 kΩ

Span 1 – 10 V: Approx. 1 MΩ

Span ≥ 10 V: Approx. 2 MΩ

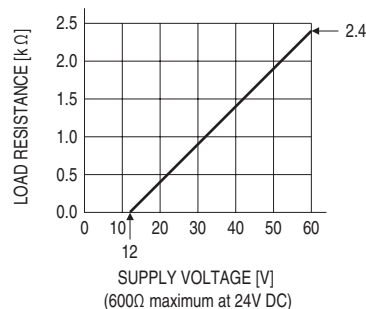
OUTPUT SPECIFICATIONS

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)

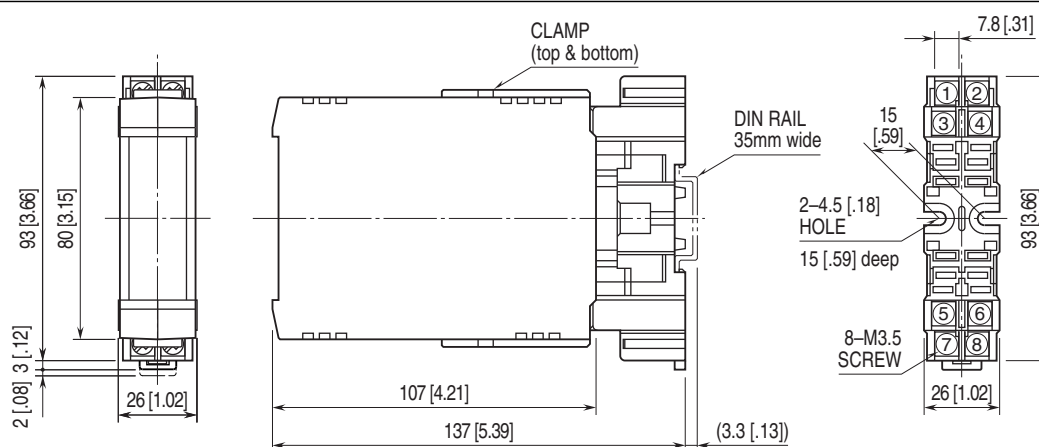
PERFORMANCE in percentage of span

Accuracy: $\pm 0.1\%$

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

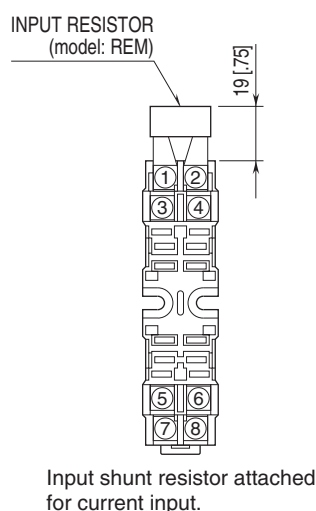
Response time: ≤ 0.5 sec. (0 – 90 %)

EXTERNAL DIMENSIONS unit: mm [inch]

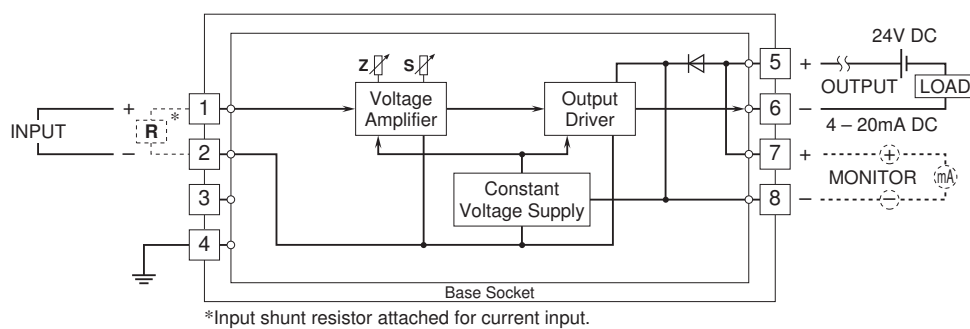


•When mounting, no extra space is needed between units.

TERMINAL ASSIGNMENTS unit: mm [inch]



SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



Specifications are subject to change without notice.