

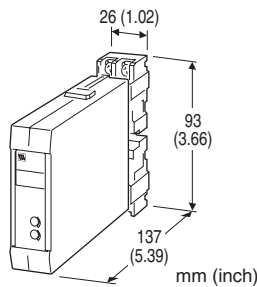
## Space-saving Two-wire Signal Conditioners B-UNIT

### SIGNAL TRANSMITTER

(isolated)

#### Functions & Features

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



### MODEL: BVS-[1][2]

#### ORDERING INFORMATION

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

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

(e.g. BVS-6/CE/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  $\Omega$ )
- B: 2 - 10 mA DC (Input resistance 500  $\Omega$ )
- C: 1 - 5 mA DC (Input resistance 1000  $\Omega$ )
- D: 0 - 20 mA DC (Input resistance 50  $\Omega$ )
- E: 0 - 16 mA DC (Input resistance 62.5  $\Omega$ )
- F: 0 - 10 mA DC (Input resistance 100  $\Omega$ )
- G: 0 - 1 mA DC (Input resistance 1000  $\Omega$ )
- H: 10 - 50 mA DC (Input resistance 100  $\Omega$ )
- Z: Specify current (See INPUT SPECIFICATIONS)  
(0 % or 50 % input must be equal to 0 mA.)

Voltage

- 1: 0 - 10 mV DC (Input resistance 20 k $\Omega$  min.)
- 2: 0 - 100 mV DC (Input resistance 100 k $\Omega$  min.)
- 3: 0 - 1 V DC (Input resistance 1 M $\Omega$  min.)
- 4: 0 - 10 V DC (Input resistance 2 M $\Omega$  min.)
- 5: 0 - 5 V DC (Input resistance 1 M $\Omega$  min.)
- 6: 1 - 5 V DC (Input resistance 1 M $\Omega$  min.)
- 0: Specify voltage (0 % or 50 % input must be equal to 0 V.)

#### [2] OPTIONS (multiple selections)

Standards & Approvals

blank: Without CE

/CE: CE marking

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)

**Isolation:** Input to output

**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:** -300 - +300 V DC (-30 - +30 V for CE)

**Minimum span:** 10 mV (max. 30 V for CE)

##### Input resistance

(Span) 10 - 100 mV : 20 k ( $\Omega$  minimum)

0.1 - 1 V : 100 k

1 - 10 V : 1 M

$\geq$  10 V : 2 M

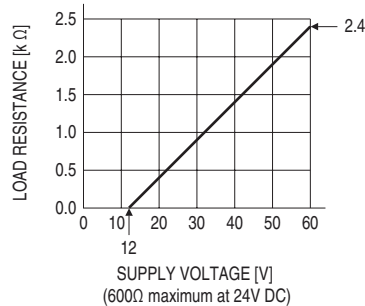
**OUTPUT SPECIFICATIONS**

**Output:** 4 - 20 mA DC

**Load resistance vs. supply voltage:**

Load Resistance ( $\Omega$ ) = (Supply Voltage (V) - 12 (V))  $\div$  0.02

(A) (including leadwire resistance)

**INSTALLATION**

**Supply voltage:** 12 - 60 V DC

**Operating temperature:** -5 to +55°C (23 to 131°F)

**Operating humidity:** 30 to 90 %RH (non-condensing)

**Mounting:** Surface or DIN rail; Standard Rack Mounting

Frame BX-16H available

**Weight:** 160 g (0.35 lb)

**PERFORMANCE in percentage of span**

**Accuracy:**  $\pm 0.1$  %

**Temp. coefficient:**  $\pm 0.015$  %/°C ( $\pm 0.008$  %/°F)

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

**Insulation resistance:**  $\geq 100$  M $\Omega$  with 500 V DC

**Dielectric strength:** 500 V AC @ 1 minute

(input to output)

1500 V AC @ 1 minute

(input or output to ground)

**STANDARDS & APPROVALS**

**EU conformity:**

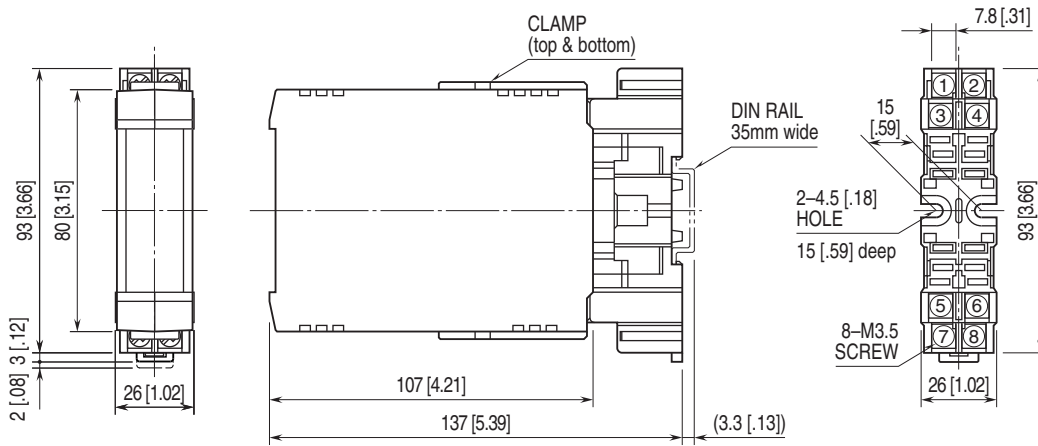
EMC Directive

EMI EN 61000-6-4

EMS EN 61000-6-2

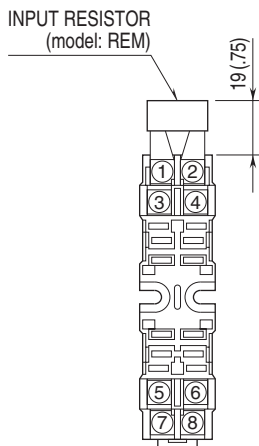
RoHS Directive

**EXTERNAL DIMENSIONS unit: mm [inch]**



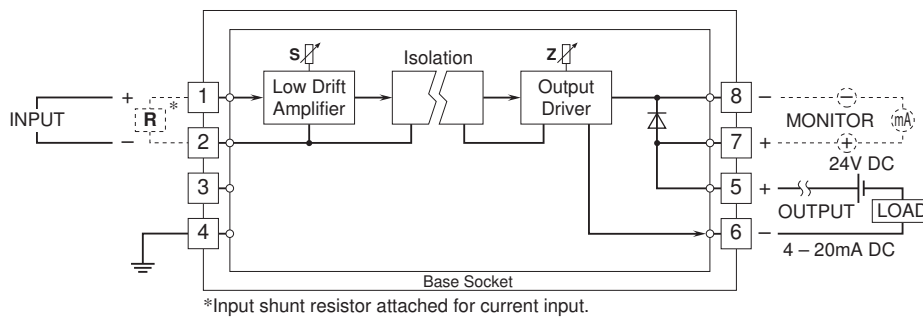
•When mounting, no extra space is needed between units.

**TERMINAL ASSIGNMENTS unit: mm [inch]**



Input shunt resistor attached for current input.

**SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM**



Specifications are subject to change without notice.