

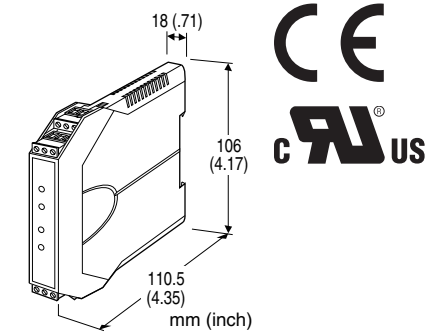
Space-saving Two-wire Signal Conditioners B3-UNIT

SIGNAL TRANSMITTER

(dual-channel output loop powered isolator)

Functions & Features

- Converts a DC input into an isolated 4 - 20 mA DC signal
- Dual channel
- Monitor terminals
- High-density mounting
- CE marking
- UL approval



MODEL: B3VS/2-[1][2][3]

ORDERING INFORMATION

- Code number: B3VS/2-[1][2][3]
- Specify a code from below for each [1] through [3].
(e.g. B3VS/2-A6)
- Special input range (For codes Z & 0)

[1] CH. 1 INPUT

Current

- A: 4 - 20 mA DC (Input resistance 250 Ω)
- B: 2 - 10 mA DC (Input resistance 499 Ω)
- C: 1 - 5 mA DC (Input resistance 1000 Ω)
- D: 0 - 20 mA DC (Input resistance 250 Ω)
- F: 0 - 10 mA DC (Input resistance 499 Ω)
- H: 10 - 50 mA DC (Input resistance 100 Ω)
- Z: Specify current (See INPUT SPECIFICATIONS)

Voltage

- 3: 0 - 1 V DC (Input resistance 1 MΩ min.)
- 4: 0 - 10 V DC (Input resistance 1 MΩ min.)
- 5: 0 - 5 V DC (Input resistance 1 MΩ min.)
- 6: 1 - 5 V DC (Input resistance 1 MΩ min.)
- 4W: -10 - +10 V DC (Input resistance 1 MΩ min.)
- 5W: -5 - +5 V DC (Input resistance 1 MΩ min.)
- 0: Specify voltage (See INPUT SPECIFICATIONS)

[2] CH. 2 INPUT

Same range availability as for Ch. 1.

[3] OPTIONS

Standards & Approvals

- blank: CE marking
- /UL: UL approval, CE marking

GENERAL SPECIFICATIONS

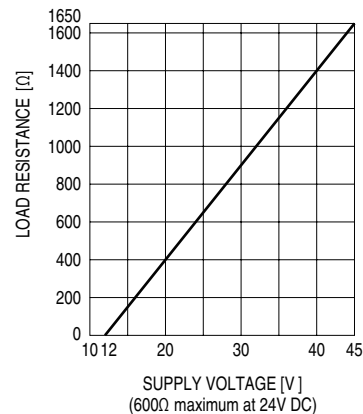
- Construction:** Small-sized front terminal structure
- Connection:** Euro type connector terminal
- Housing material:** Flame-resistant resin (gray)
- Isolation:** Input to output; between channels
- Zero adjustment:** -5 to +5 % (front)
- Span adjustment:** 95 to 105 % (front)

INPUT SPECIFICATIONS

- **DC Current:** Input resistor incorporated
Specify input resistance value for code Z.
($R \leq 0.25 \text{ W} \div [\text{F.S. Current}]^2$)
- **DC Voltage:** -100 - +100 V DC
(Max. voltage across the input terminals:
70 V for CE conformity; 60 V for UL approval)
- Minimum span:** 1 V
- Offset:** Max. 1.5 times span
- Input resistance:**
(Span) 1 - 2 V: 1M (Ω minimum)(≥ 80 kΩ with no supply voltage)
≥ 2 V: 1 M

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 - 45 V DC
Operating temperature:
 -40 to +85°C (-40 to +185°F)
 Max. 55°C (131°F) for UL approval
Operating humidity: 0 to 95 %RH (non-condensing)
Mounting: DIN rail
Weight: 110g (0.24 lbs)

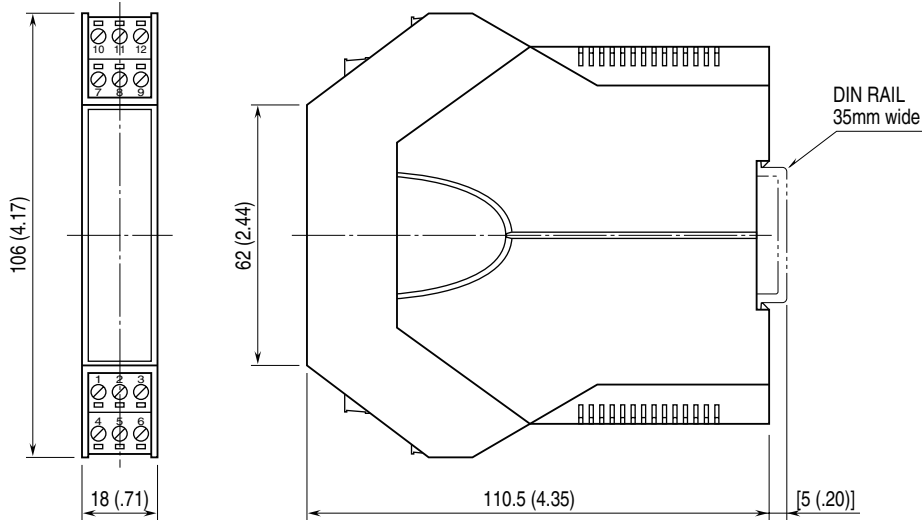
PERFORMANCE in percentage of span

Accuracy: ±0.1 %
Temp. coefficient: ±0.02 %/°C (±0.01 %/°F)
Response time: ≤ 0.1 sec. (0 - 90 %)
Insulation resistance: ≥ 100 MΩ with 500 V DC
Dielectric strength:
 2000 V AC @1 minute (input to output to ground)
 2000 V AC @1 minute (between channels)

STANDARDS & APPROVALS

CE conformity:
 EMC Directive (2004/108/EC)
 EMI EN 61000-6-4: 2007
 EMS EN 61000-6-2: 2005
Approval:
 UL/C-UL general safety requirements
 (UL 61010-1, CAN/CSA-C22.2 No.1010-1)

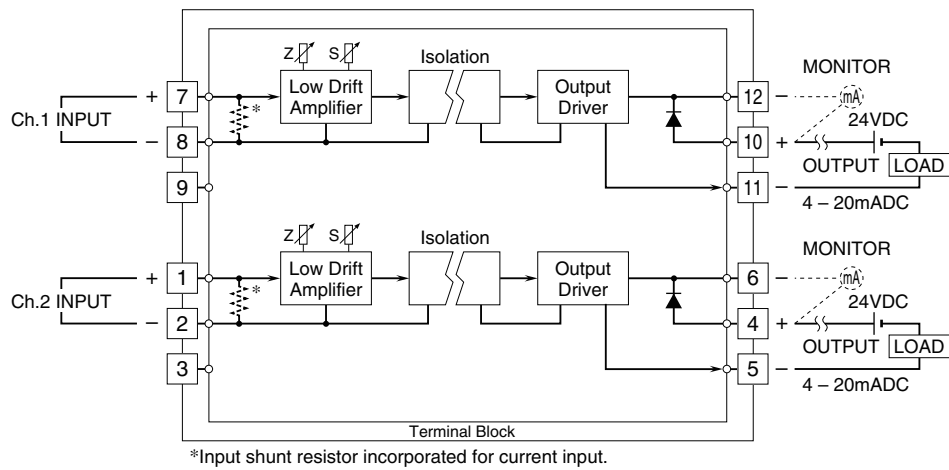
EXTERNAL DIMENSIONS & TERMINAL ASSIGNMENTS unit: mm (inch)



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



SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



Specifications are subject to change without notice.

