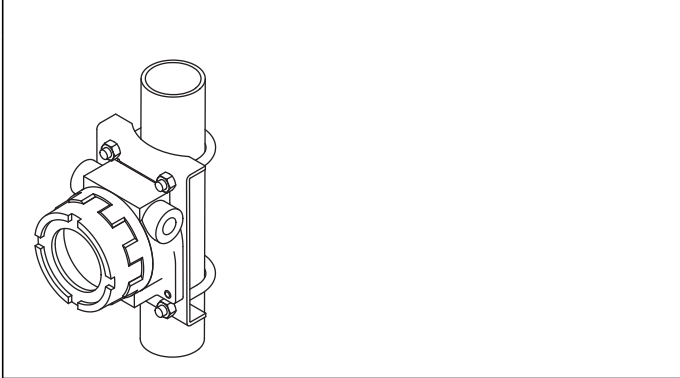


**Field-mounted Two-wire
Signal Conditioners 6B-UNIT**

POTENTIOMETER TRANSMITTER

Functions & Features

- IP66 / IP67 housing enables field mounting
- Stainless steel field housing selectable
- Potentiometer transmitter that uses a potentiometer as a probe
- Constant voltage excitation allows use with pots with total resistances from 100 Ω - 20 kΩ without affecting accuracy
- Minimal interaction between zero and span adjustments.



MODEL: 6BM-0[1][2][3]

ORDERING INFORMATION

- Code number: 6BM-0[1][2][3]

Specify a code from below for each of [1] through [3].
(e.g. 6BM-00A1)

SAFETY APPROVAL

0: None

[1] WIRING CONDUIT

- 0: G 1/2
- 1: 1/2 NPT
- 2: M20 × 1.5
- 3: PG 13.5

[2] ENCLOSURE MATERIAL

- A: Diecast aluminum
- S: Stainless steel casting

[3] MOUNTING BRACKET

- 0: Without
- 1: With

PACKAGE INCLUDES...

- **Mounting screws**
Bolt (M8 x 15): 4
Spring washer for M8: 4
Material: Stainless steel 304
- **Mounting bracket assembly (option):**
Mounting bracket: 1
M10 U-bolt: 2
Nut for M10: 4
Spring washer for M10: 4
Material: Stainless steel 304
Applicable pipe: 1 1/2" min.; 2" max.

GENERAL SPECIFICATIONS

Degree of protection: NEMA 4X, IP66/IP67

Wiring conduit: See 'Ordering information.'

Electrical connection: M3 screw terminals
(torque 0.6 N·m)

Materials

- **Transmitter housing:** Diecast aluminum
- **Screw terminals:** Nickel-plated steel
- **Enclosure:** Diecast aluminum or stainless steel casting (equivalent to type 316); silver color, epoxy resin coated
- Isolation:** Input or output to outdoor enclosure
- Output limit:** Approx. 120 %
- Zero adjustment:** 0 to 10 % of total resistance
- Span adjustment:** (of total resistance)
135 Ω or above: 50 - 100 %
Below 135 Ω: 70 - 100 %

INPUT SPECIFICATIONS

Input: Potentiometer; 100 Ω - 20 kΩ

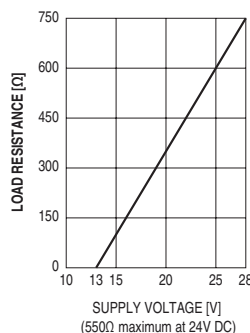
Minimum span: 50 % of total resistance (≥ 135 Ω); 70 % of total resistance (< 135 Ω)

Excitation: Approx. 0.2 V DC

OUTPUT SPECIFICATIONS

Output: 4 - 20 mA DC

Load resistance vs. supply voltage: Load Resistance (Ω) =
(Supply Voltage (V) - 13 (V)) ÷ 0.02 (A)
(including leadwire resistance)



INSTALLATION

Supply voltage: 13 - 28 V DC

Operating temperature: -5 to +70°C (23 to 158°F)

Weight:

- Unit
 - Approx. 1.5 kg (2.9 lb), aluminium
 - Approx. 4.2 kg (8.8 lb), stainless steel
- Mounting bracket assembly (option)
 - Approx. 0.78 kg (1.72 lb)

PERFORMANCE in percentage of span

Accuracy: $\pm 0.2\%$

Linearity ($E_n\%$) is added to the above items for potentiometer 2 - 20 k Ω .

$E_n = 0.07 R\%$ where

R = potentiometer total resistance (k Ω)

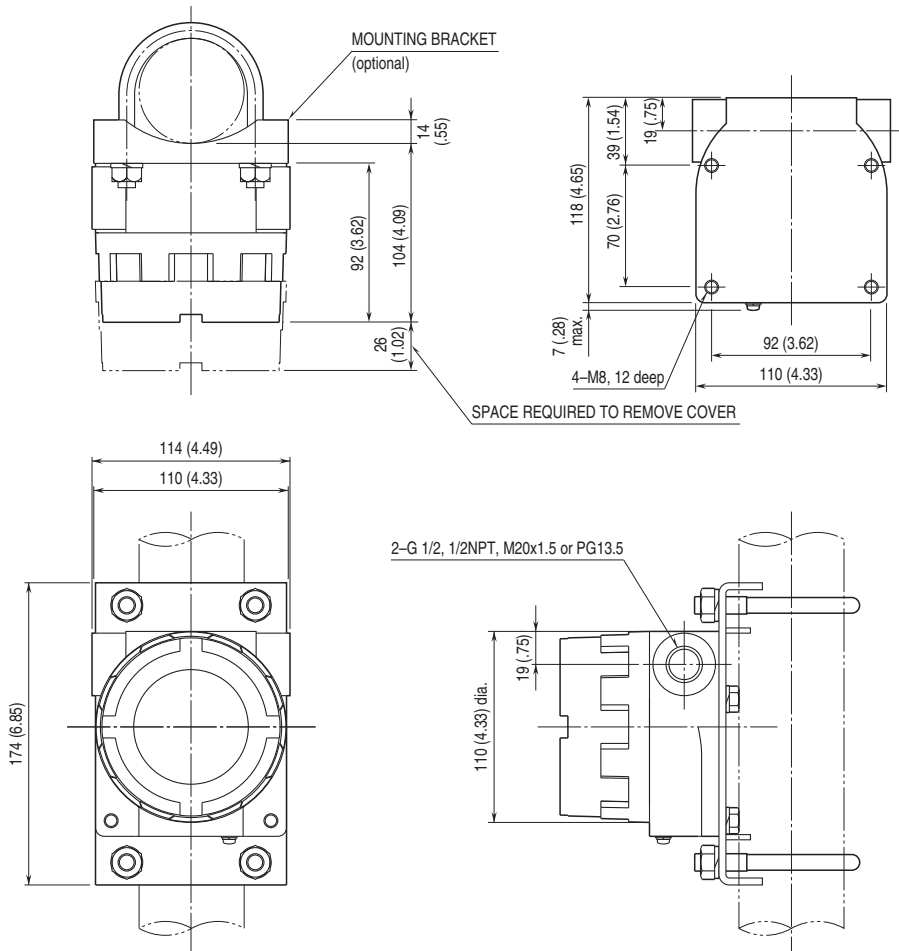
Temp. coefficient: $\pm 0.015\%/^{\circ}\text{C}$ ($\pm 0.008\%/^{\circ}\text{F}$)

Response time: ≤ 0.5 sec. (0 - 90 %)

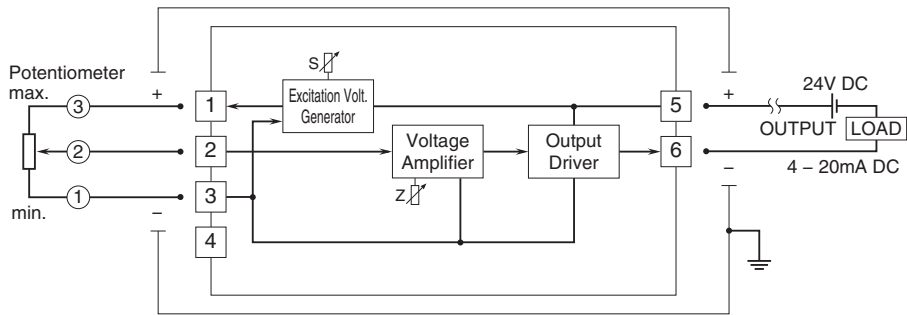
Insulation resistance: ≥ 100 M Ω with 500 V DC

Dielectric strength: 1500 V AC @ 1 minute
(input or output to outdoor enclosure)

EXTERNAL DIMENSIONS unit: mm (inch)



SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



Specifications are subject to change without notice.