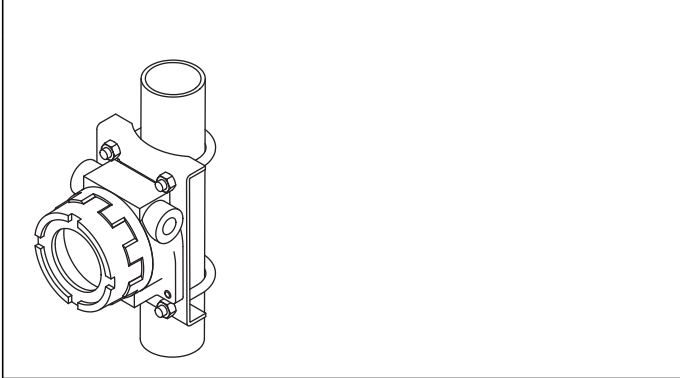


**Field-mounted Two-wire  
Signal Conditioners 6B-UNIT**

**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**

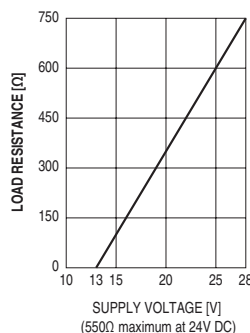
- Degree of protection:** NEMA 4X, IP66/IP67
- Wiring conduit:** See 'Ordering information.'
- Electrical connection:** M3 screw terminals (torque 0.6 N·m)
- Materials**
  - **Transmitter housing:** Diecast aluminum
  - **Screw terminals:** Nickel-plated steel
  - **Enclosure:** Diecast aluminum or stainless 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:** ±0.2 %

Linearity (En %) is added to the above items for potentiometer 2 - 20 kΩ.

En = 0.07 R % where

R = potentiometer total resistance (kΩ)

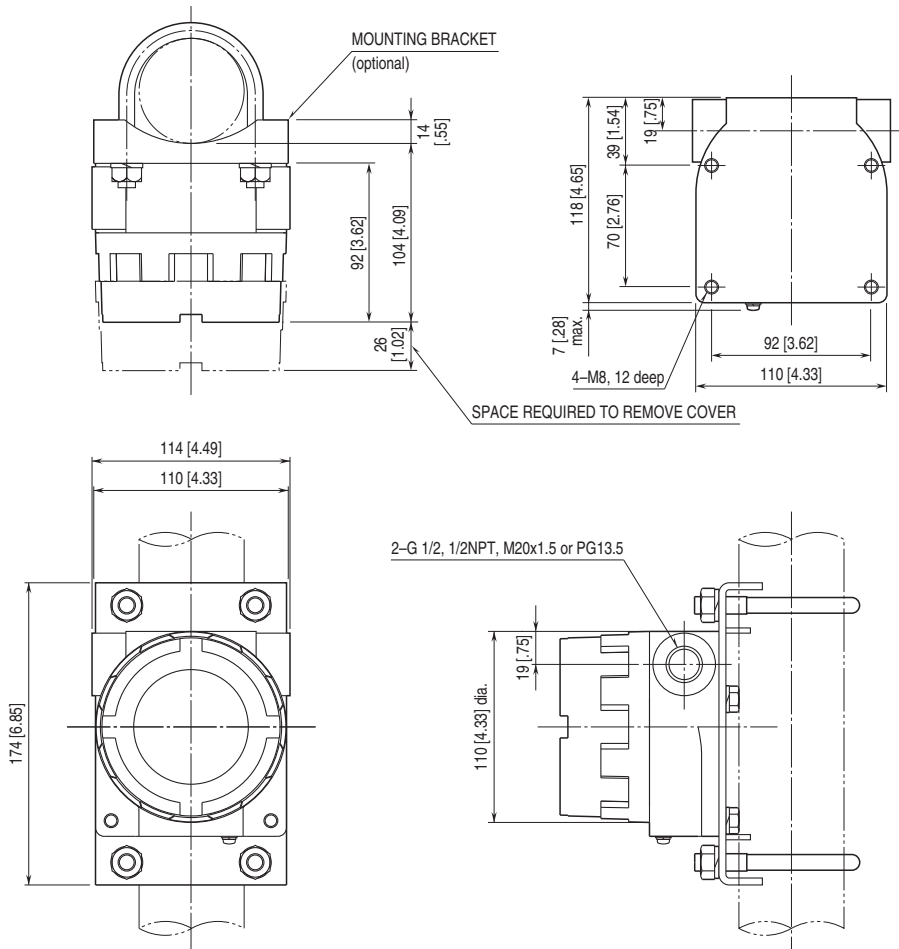
**Temp. coefficient:** ±0.015 %/°C (±0.008 %/°F)

**Response time:** ≤ 0.5 sec. (0 - 90 %)

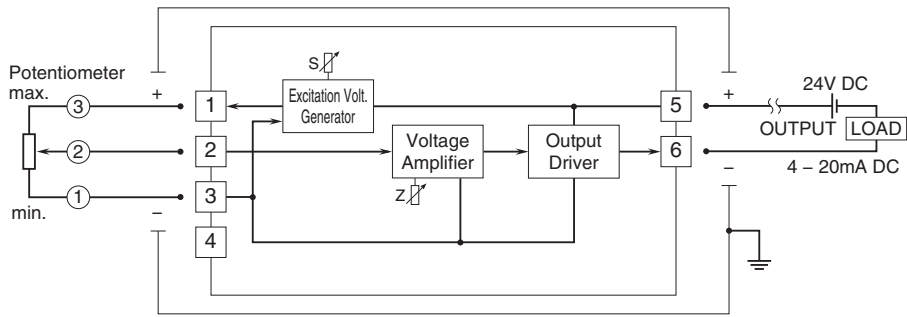
**Insulation resistance:** ≥ 100 MΩ with 500 V DC

**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.