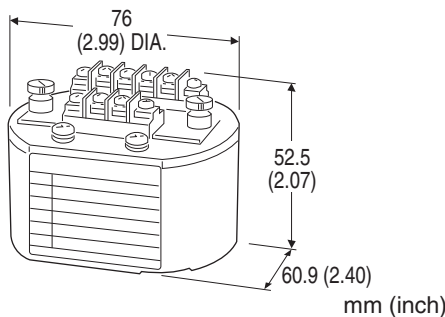


Field-mounted Two-wire Signal Conditioners 6-UNIT

POTENTIOMETER TRANSMITTER

Functions & Features

- Providing a 4 - 20 mA DC signal proportional to a potentiometer or slidewire position input
- 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
- Rugged enclosure



MODEL: 6M

ORDERING INFORMATION

- Code number: 6M
- Mounting adapter (e.g. surface mounting adapter plate, model: A-01)

Note: When a mounting adapter is required, specify mounting adapter. Not included without specifying.

RELATED PRODUCTS

- Outdoor enclosure (model: 6BX-E)

PACKAGE INCLUDES...

- **Mounting adapter**
surface mounting adapter plate (model: A-01)
Spring clip (model: A-02)
DIN rail mounting plate (model: A-31)

Note: When a mounting adapter is required, specify mounting adapter. Not included without specifying. When using in combination with outdoor enclosure (model: 6BX-E), use a spring clip (model: A-02).

GENERAL SPECIFICATIONS

Connection: M3 screw terminals (torque 0.6 N·m)
Screw terminal: Nickel-plated steel

Housing material: Diecast aluminum

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

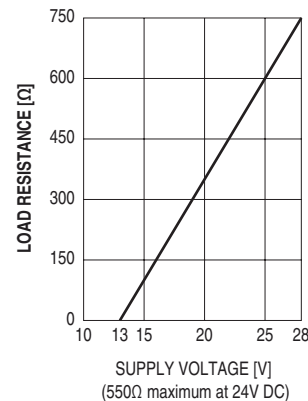
Minimum span: 50 % of total resistance ($\geq 135 \Omega$); 70 % of total resistance ($< 135 \Omega$)

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)

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

Mounting: DIN rail with mounting plate A-31; surface mounting with adapter plate A-01; spring clip A-02 for 3-inch hub

Weight: 220 g (0.49 lb)

PERFORMANCE in percentage of span

Accuracy: $\pm 0.2 \%$

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

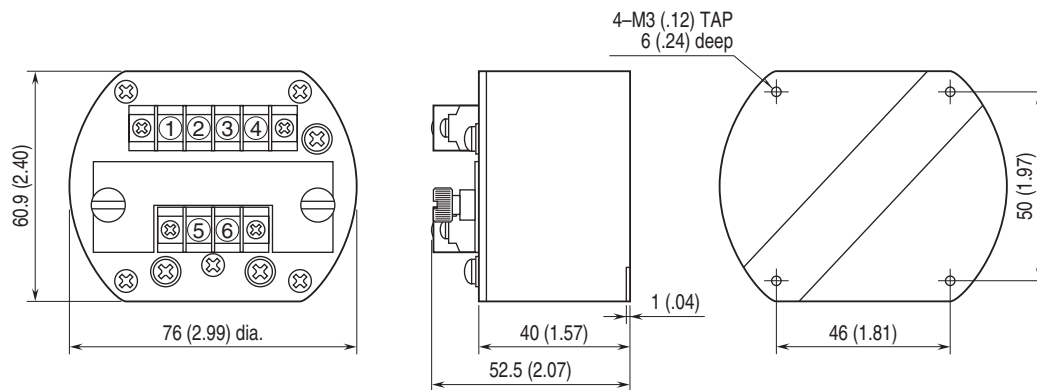
$E_n = 0.07 R \%$ where

R = potentiometer total resistance (kΩ)

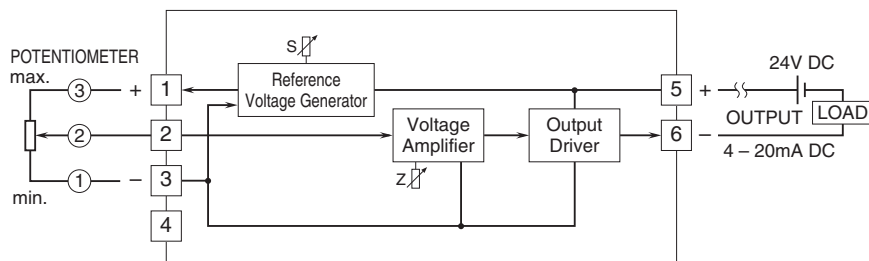
Temp. coefficient: $\pm 0.015 \%/^{\circ}\text{C}$ ($\pm 0.008 \%/^{\circ}\text{F}$)

Response time: ≤ 0.5 sec. (0 - 90 %)

EXTERNAL DIMENSIONS & TERMINAL ASSIGNMENTS unit: mm [inch]



SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



Specifications are subject to change without notice.