

Field-mounted Two-wire Signal Conditioners 6-UNIT

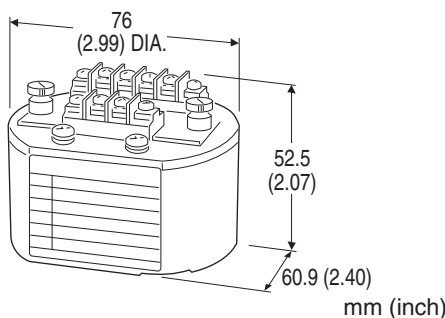
AC TRANSMITTER

Functions & Features

- Converting an alternating current/voltage into an isolated 4 – 20 mA DC signal
- True RMS sensing
- Rugged enclosure

Typical Applications

- Converting a large AC current in combination with a shunt resistor, or a narrow span AC voltage



MODEL: 6AC-[1]

ORDERING INFORMATION

- Code number: 6DV-[1]
- Specify a code from below for [1].
(e.g. 6AC-A1)
- Special input range (For codes AZ & A8)
 - 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.

[1] INPUT

Current

- AA:** 0 – 10 mA AC (Input resistance 100 Ω)
- AB:** 0 – 50 mA AC (Input resistance 20 Ω)
- AC:** 0 – 100 mA AC (Input resistance 10 Ω)
- AD:** 0 – 500 mA AC (Input resistance 1 Ω)
- AZ:** Specify current (See INPUT SPECIFICATIONS)
(0 % input must be 0 mA.)

Voltage

- A1:** 0 – 100 mV AC (Input resistance 10 kΩ min.)
- A2:** 0 – 500 mV AC (Input resistance 10 kΩ min.)
- A3:** 0 – 1 V AC (Input resistance 10 kΩ min.)
- A4:** 0 – 5 V AC (Input resistance 200 kΩ min.)
- A5:** 0 – 10 V AC (Input resistance 200 kΩ min.)

A6: 0 – 120 V AC (Input resistance 200 kΩ min.)

A7: 0 – 150 V AC (Input resistance 200 kΩ min.)

A8: Specify voltage (See INPUT SPECIFICATIONS)
(0 % input must be 0 V.)

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

Isolation: Input to output

Zero adjustment: -5 to +5 % (behind the access cover)

Span adjustment: 95 to 105 % (behind the access cover)

INPUT SPECIFICATIONS

Frequency: 40 Hz min., 1 kHz max.

■ **AC Current:** 0 – 1 A AC; input resistor incorporated

Minimum span: 1 mA

Input resistance

- Span 1 mA: 1 kΩ
- Span ≤ 2 mA: 500 Ω
- Span ≤ 5 mA: 200 Ω
- Span ≤ 10 mA: 100 Ω
- Span ≤ 20 mA: 50 Ω
- Span ≤ 50 mA: 20 Ω
- Span ≤ 100 mA: 10 Ω
- Span ≤ 500 mA: 1 Ω
- Span ≤ 1 A: 0.5 Ω

■ **AC Voltage:** 0 – 250 V AC

Minimum span: 50 mV

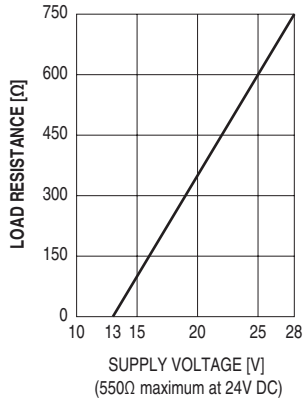
Input resistance: (Input Span: Input Resistance)

- 50 mV – 1.5 V : 10 k (Ω minimum)
- ≥ 1.5 V : 200 k

OUTPUT SPECIFICATIONS

Output: 4 - 20 mA DC

Load resistance vs. supply voltage: Load Resistance (Ω) =
 (Supply Voltage (V) - 13 (V)) \div 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: ± 0.4 %

Temp. coefficient: ± 0.02 %/°C (± 0.01 %/°F)

Response time: ≤ 0.5 sec. (0 - 90 %)

Ripple: 0.5 %p-p max.

Insulation resistance: ≥ 100 M Ω with 500 V DC

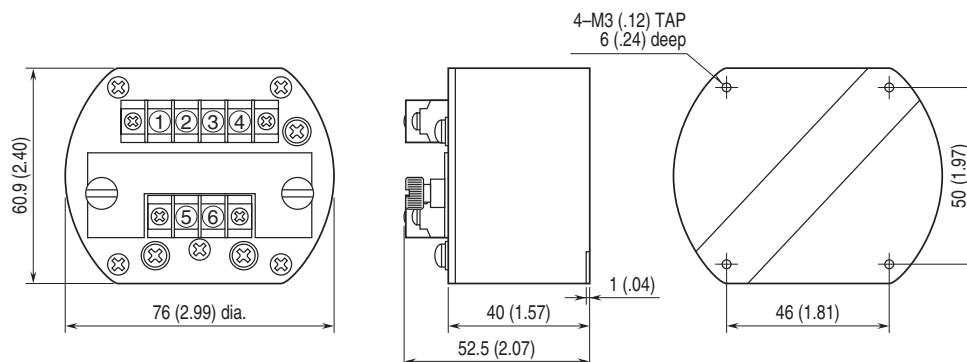
Dielectric strength: 500 V AC @ 1 minute

(input to output)

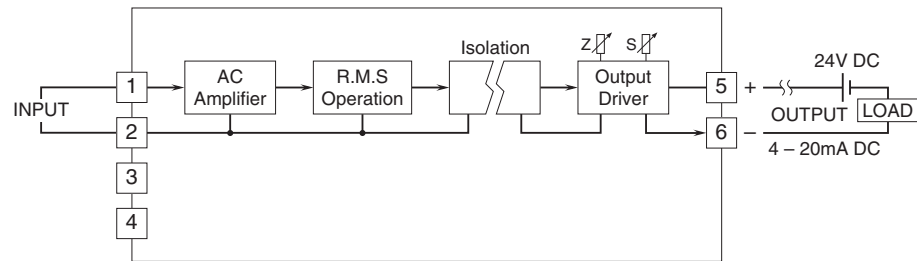
1500 V AC @ 1 minute

(input or output to ground)

EXTERNAL DIMENSIONS & TERMINAL ASSIGNMENTS unit: mm [inch]



SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



Specifications are subject to change without notice.