

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

**AC TRANSMITTER**

**MODEL 6AC**

**MODEL & SUFFIX CODE SELECTION**

MODEL \_\_\_\_\_ **6AC**   
 INPUT \_\_\_\_\_

<b>Current</b>	<b>Voltage</b>
<b>AA</b> : 0 – 10mA AC	<b>A1</b> : 0 – 100mV AC
<b>AB</b> : 0 – 50mA AC	<b>A2</b> : 0 – 500mV AC
<b>AC</b> : 0 – 100mA AC	<b>A3</b> : 0 – 1V AC
<b>AD</b> : 0 – 500mA AC	<b>A4</b> : 0 – 5V AC
<b>AZ</b> : Specify current*	<b>A5</b> : 0 – 10V AC
	<b>A6</b> : 0 – 120V AC
	<b>A7</b> : 0 – 150V AC
	<b>A8</b> : Specify voltage*

\*0% input must be 0mA or 0V.

**OUTPUT**

4 – 20mA DC

**SUPPLY VOLTAGE**

13 – 28V DC

**ORDERING INFORMATION**

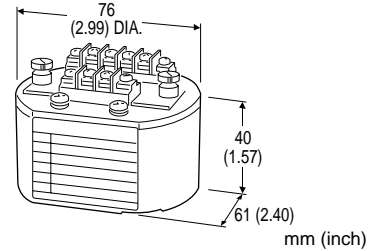
Specify code number and variables.

- **Code number** (e.g. 6AC-A1)
- **Special input range** (For codes AZ & A8)

**GENERAL SPECIFICATIONS**

**Connection:** M3 screw terminals  
 (nickel-plated steel; torque ≤0.6 N·m)  
**Housing material:** die cast aluminium  
**Isolation:** input to output  
**Adjustments:** zero and span; ±5%  
 (behind the access cover)

**ISOLATION**



**Functions & Features**

- Converting an alternating current/voltage into an isolated 4 – 20mA 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

**INPUT & OUTPUT**

**INPUT**

**Frequency:** 40 Hz min., 1 kHz max. with 100% input  
**AC Current:** 0 – 1A AC; input resistor (2W) incorporated

**Minimum span:** 1mA

**Input resistance**

Input	Input Resistance
1mA	: 1k (Ω)
≤2mA	: 500
≤5mA	: 200
≤10mA	: 100
≤20mA	: 50
≤50mA	: 20
≤100mA	: 10
≤500mA	: 1
≤1A	: 0.5

**AC Voltage:** 0 – 250V AC

**Minimum span:** 50mV

**Input resistance**

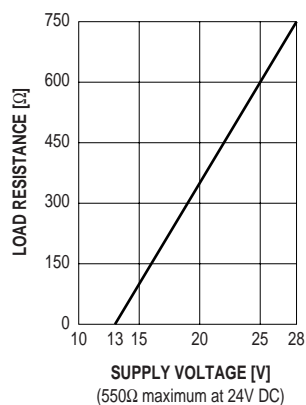
Input Span	Input Resistance
50mV – 1.5V	: 10k (Ω minimum)
≥1.5V	: 200k

## ■OUTPUT: 4 – 20mA DC

### Load resistance vs. supply voltage:

$$\text{Load Resistance } (\Omega) = \frac{\text{Supply Voltage (V)} - 13 \text{ (V)}}{0.02 \text{ (A)}}$$

(including leadwire resistance)



## INSTALLATION

**Supply voltage:** 13 – 28V 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

**Dimensions:** W76×H52.5×D61 mm (2.99"×2.07"×2.40")  
See General Spec. Sheet Figure A-1.

**Weight:** 220 g (0.49 lbs)

**Terminal assignment:** See General Spec. Sheet Figure B-1.

## PERFORMANCE in percentage of span

**Accuracy:** ±0.4%

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

**Response time:** ≤0.5 seconds (0 – 90%)

**Ripple:** 0.5% p-p max.

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

**Dielectric strength:** 500V AC @1 minute  
(input to output)  
1500V AC @1 minute  
(input or output to ground)

## SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM

