



# 2-Wire Current Transmitter, 4-20 mA Output

The **CR4320** series, loop-powered, 2-Wire Current Transmitter produces a calibrated 4-20 mA. DC output current directly proportional to the average RMS value of the input alternating current. The controlled current output is unaffected by variations in supply voltage, interconnect and load impedance (within specification limits) to provide a highly accurate means for monitoring alternating current over long distances.

## Features

- Permanently calibrated
- Loop-powered
- Fully isolated
- 12 different ranges
- 2 case styles, .93" (23.6 mm) and 1.25" (31.8 mm) window opening
- Output overload protected



Case Style 1

Case Style 2

## Specifications

### Accuracy:

±0.5% Full-Scale (FS)

### Repeatability:

Less than 0.1%

### Ripple & Noise:

1% Max., peak to peak

### Calibrated Signal Out:

4-20 mA DC

### Response Time:

200 ms max., 10-90% FS

### Max. Signal Out:

30 mA DC

### Temperature Coefficient:

± 0.04%/°C

### Supply Voltage:

24 Vdc ±10%

### Frequency:

50/60 Hz

### Continuous Thermal Current Rating Factor:

1.33 @ 30°C

### Short Time Thermal Current

### Rating Factor (For 30 Seconds):

6.0 x Full Scale for AC ranges up to 200 Amp.

4.0 x Full Scale for ranges 300 and 400 Amp.

### Output Load:

0 to 600 ohms

### Insulation Class:

600 V, BIL 10 kV Full Wave

### Reverse Polarity Protection:

Yes

### Operating Temperature Range:

-30°C to +60°C

### Storage Temperature Range:

-55°C to +85°C

### Approximate Weight:

1.5 pounds (.68 kg)

## Part Numbers

CR4320 -    4-20 MA CURRENT TRANSMITTER

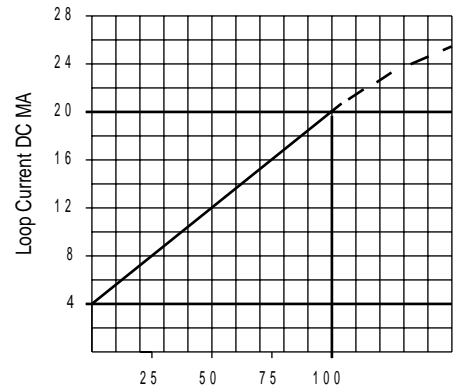
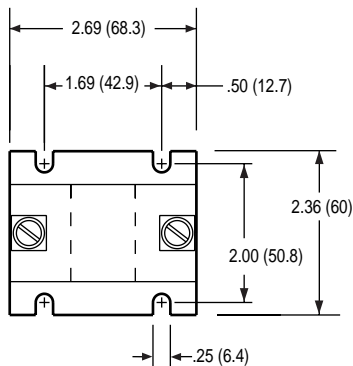
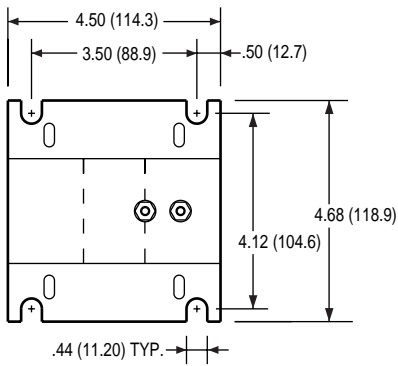
	Full-Scale (FS) Range in AC Amps	Case Style
<b>5</b>	0-5	1
<b>10</b>	0-10	1
<b>15</b>	0-15	1
<b>20</b>	0-20	1
<b>30</b>	0-30	1
<b>50</b>	0-50	1
<b>75</b>	0-75	1
<b>100</b>	0-100	1
<b>150</b>	0-150	1
<b>200</b>	0-200	1
<b>300</b>	0-300	2
<b>400</b>	0-400	2

Internet Resources <http://www.crmagnetics.com/>

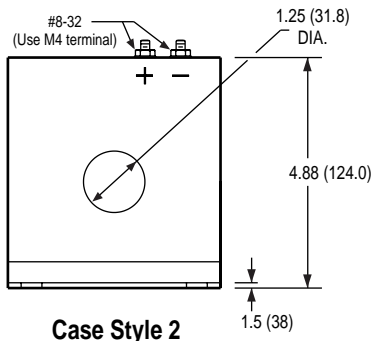
- Transducer Selection Guide: [transducer.html](#)
- Application Sheet: [pdf/ancr4320-1.pdf](#)
- Pricing: [pricing/4320.html](#)
- Motor Loads: [mot\\_ld\\_a.pdf](#)

# 2-Wire Current Transmitter 4-20 mA Output

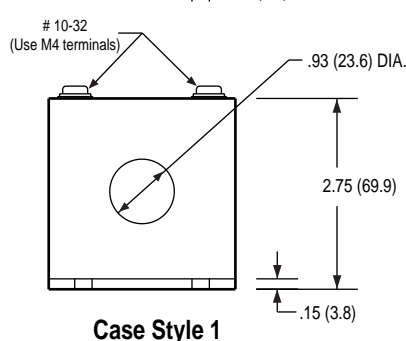
## Application Notes



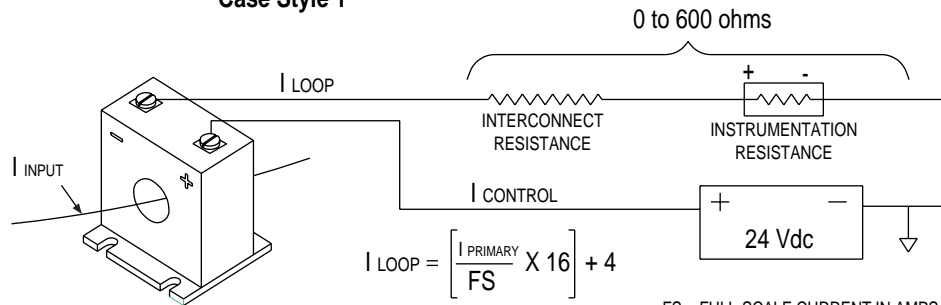
**LOOP CURRENT OUT  
VS  
FULL-SCALE INPUT CURRENT**



**Case Style 2**



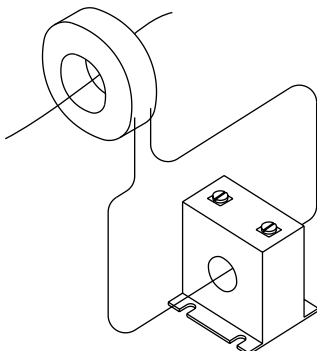
**Case Style 1**



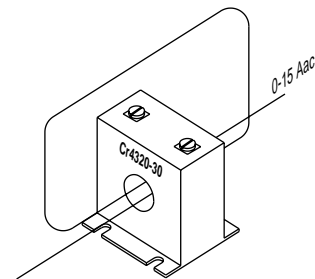
in (mm)

FS = FULL-SCALE CURRENT IN AMPS RMS  
I PRIMARY = MONITORED CURRENT IN AMPS RMS  
I LOOP = LOOP CURRENT IN mA dc

## Typical Applications



An external current transformer may be used with the transmitter by routing the secondary leads through the window opening. Use the CR4320-5 current transmitter when using a 5 Amp secondary instrument grade current transformer. For additional details on current transformers, see page 25.



The scaling factor may be changed by threading the primary current-carrying wire several times through the window opening. The "actual" measurement range will be the name plate range divided by the number of wire passes. For example, the CR4320-30 has the name plate range of 0-30 Aac. Two passes of the wire through the window opening will then provide an effective range of 0-15 Aac (30÷2).