

Description

AT and ATR-MS Series transducers combine a current transformer and a signal conditioner into a single package. This provides higher accuracy, lower wiring costs, easier installation and save valuable panel space. Both AT and ATR are available in a medium split-core housing with 4-20 mA output proportional to the primary AC current. ATR Series feature a True RMS output. They are designed for application on distorted current waveforms such as VFD outputs.

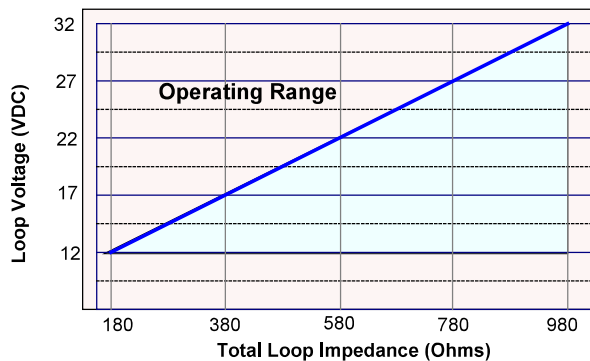
Installation

Place wire or bus bar to be monitored through the sensing aperture.

AT and ATR Series transducers work in the same environment as motors, contactors, heaters, pull-boxes, and other electrical enclosures. They can be mounted in any position or hung directly on wires with a wire tie. Just leave at least one inch distance between sensor and other magnetic devices.

Power Supply

Maximum Loop Impedance



$$\text{Loop impedance (ohms)} = \frac{V(\text{supply voltage}) - 7.5 \text{ V}}{0.025 \text{ A}}$$

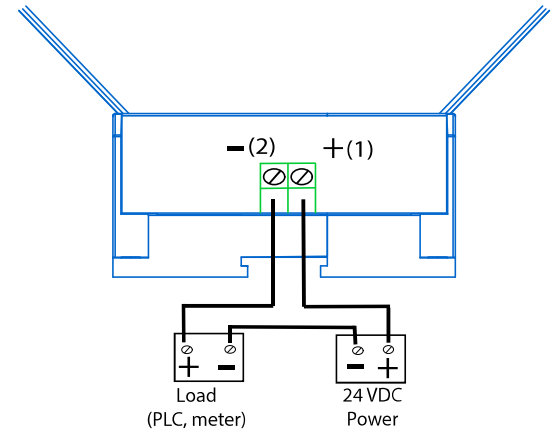
Intended for use with a Class 2 source or max 32 VDC source with the secondary fused to limit power to a maximum of 100 VA

Output Wiring

Connect control or monitoring wires to the sensor. Use 22-14 AWG rated minimum 75°C copper wire and tighten terminals to 5-7 inch-pounds torque. Be sure the output load total impedance does not exceed 660 ohms @ 24 VDC.

Connection Notes:

- Captive screw terminals
- 22-14 AWG solid or stranded
- Observe polarity
- See ordering information and label for monitored circuit range



Model Range Select

AT and ATR Series transducers feature factory calibrated ranges. This eliminates time consuming and inaccurate field setting of zero or span.

1. Determine the normal operating amperage of your monitored circuit using load specifications or a test ammeter.

2. Select the model with a range that is equal to or slightly higher than the normal operating amperage.

Trouble Shooting

1. Sensor has no output

- A. Power supply is not properly sized. *Check power supply voltage and current rating.*
- B. Polarity is reversed. *Check and correct output wiring polarity.*

2. Output Signal Too Low

- A. The range may be too high for current being monitored. *Exercise care when selecting the model range.*
- B. The load current is not sinusoidal. *Select an ATR transducer for use with distorted waveforms.*
- C. Monitored current is below minimum required. *Loop*

the monitored wire several times through the aperture until the "sensed" current rises above minimum. Sensed Amps = (Actual Amps) x (Number of Loops). Count loops on the inside of the aperture.

3. Sensor is always at 4 mA

- A. Monitored load is not AC or is not on. *Check that the monitored load is AC and that it is actually on.*

4. Output Signal is always at 20 mA

- A. The range is too low for current being monitored. *Select a model with a higher range.*