INTERFACE SERIES

Installation & Operation Instructions

RTI

Phone: 1-888-967-5224
Website: workaci.com

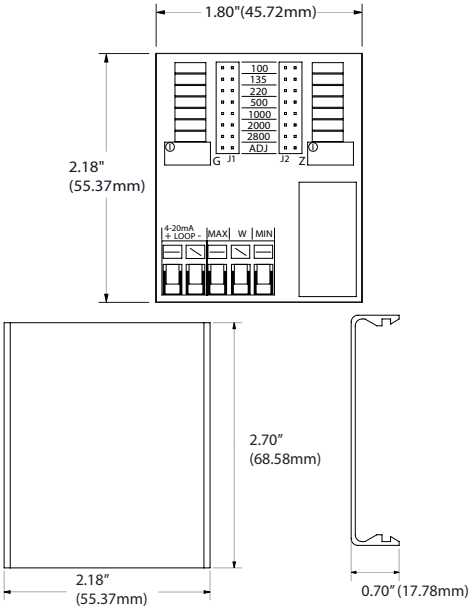
GENERAL INFORMATION

The RTI converts a 3-wire resistance signal to an analog output by using current loop power (two wire). The RTI is reverse polarity protected and offers linear tracking of a 3-wire resistance input against the standard output signal of a 4-20 mA (current source). The RTI is small in size and self-powered. These features lend its use to remote mounting for feedback signals from a valve or damper motor indicating its position.

MOUNTING INSTRUCTIONS

Ground yourself to discharge static electricity before touching any electronic equipment, as some components are static sensitive. The interface can be mounted in any position. If circuit board slides out of snap track, a nonconductive "stop" may be required. Use only fingers to remove board from snap track. Slide out of snap track or push out against side of snap track and lift that side of the circuit board to remove. **Do not flex board. Use no tools.**

FIGURE 1: DIMENSIONS



WIRING INSTRUCTIONS

NOTE: Make all resistance connections before powering, to prevent damage to RTI.
Be sure to follow all local and electrical codes. Refer to wiring diagram (**Figure 2**, p.2) for connection information.

If the resistance input range is one of the fixed ranges specified on the RTI, each of the jumpers J1 and J2 should be placed next to the resistance range value desired. If a resistance input range other than one of the fixed ranges (between 100 and 5000 ohms) is to be adjusted, follow the procedure noted below:

1. Both jumpers should be placed on the adjustable range or "ADJ" position.
2. Turn the G pot fully counterclockwise and the Z pot fully clockwise
3. Connect limits of the resistance input to the MIN and MAX terminals of the RTI
4. Connect a temporary jumper between the wiper and the MIN terminal.
5. With a current meter in series to the 20 mA plus and minus loop terminals, apply power to the RTI
6. Adjust the G pot until the meter reads 4 milliamps
7. Remove power and move the jumper from the MIN terminal to the MAX terminal (still connected to the wiper).
8. Apply power again and adjust the Z pot until the current meter reads 20 milliamps.
9. Remove power and move the wiper jumper back to the MIN terminal
10. Apply power again.
11. Repeat steps 6 through 10 until calibrated.
12. After calibration procedures are complete, remove the temporary jumper, connect the proper wiper wire, and check the connections on the others.

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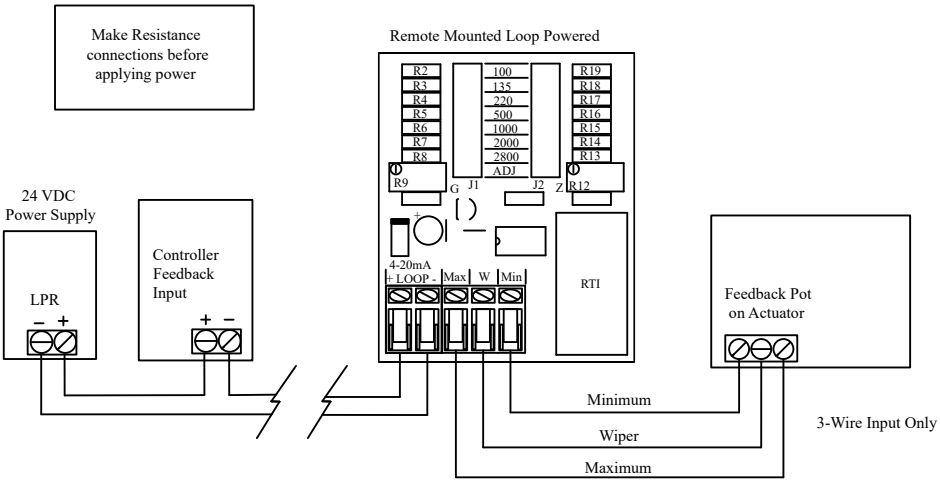
FIGURE 2: WIRING



PRODUCT SPECIFICATIONS

NON-SPECIFIC INFORMATION	
Supply Voltage:	24 VDC +/-10%
Input Type:	3-wire potentiometer only
Input Resistance Ranges:	Seven (7) fixed ranges: 0-100, 0-135, 0-220, 0-500, 0-1000, 0-2000 & 0-2800Ω | Also includes an 8th adjustable input range: **RTI-1:** 0 to (100 to 500) Ω | **RTI-2:** 0 to (500 to 2200) Ω | **RTI-3:** 0 to (2200 to 5000) Ω
Current Draw:	Min 4 mA (wiper to MIN), max 20 mA Output (wiper to MAX), Signal of 4 to 20 mA
Accuracy:	+/- 1% of the adjustable 16 mA span, +/- 2% of the fixed 16 mA span
Operating Temperature Range:	35 to 120°F (1.7 to 48.9°C)
Operating Humidity Range:	10 to 95% non-condensing
Connections:	45° Captive Screw Terminal Blocks
Wire Size:	16 (1.31 mm²) to 26 AWG (0.129 mm²)
Terminal Block Torque Rating:	0.5 Nm (Minimum); 0.6 Nm (Maximum)
Storage Temperature:	-10 to 150°F (-23.3 to 65.5°C)

WARRANTY

The RTI Series is covered by ACI's Two (2) Year Limited Warranty, which is located in the front of ACI'S SENSORS & TRANSMITTERS CATALOG or can be found on ACI's website: www.workaci.com.

W.E.E.E. DIRECTIVE

At the end of their useful life the packaging and product should be disposed of via a suitable recycling centre. Do not dispose of with household waste. Do not burn.

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