

RP7517A, B Electronic-Pneumatic Transducers

Installation Instructions

Before Installation

Observe the ambient temperature limits of 41 to 131F (5 to 55C) at the installation location. RP7517A, B Electronic-Pneumatic Transducers ("Transducer") mount in a vertical position with a maximum of a 5 angular degree tolerance on a panel surface or device mounting rail (cover models only). No special tools are required for installation.

NOTE: The RP7517A cannot be used with the R7510/11 Excel Controller. The RP7517B is required for the R7510/11 Excel Controller. When used with Excel Plus or MicroCel, a separate transformer must be used to power the RP7517B(s).

Installation _____

Mounting on Panel

- 1. Select the mounting surface according to the dimensions in Figures 1 and 2.
- 2. Use the Transducer mounting ears as a template and mark two mounting hole locations.
- 3. Drill the two mounting holes.
- 4. Secure the Transducer with the two No. 8 screws provided.

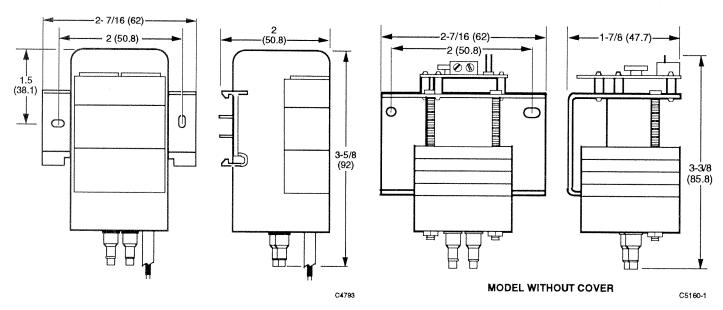


Fig. 1. RP7517A or B Electronic-Pneumatic Transducer with Cover — Approximate Dimensions in Inches (Millimeters).

Fig. 2. RP7517A Electronic-Pneumatic Transducer without Cover — Approximate Dimensions in Inches (Millimeters).

Mounting on Device Mounting Rail (Cover Model Only)

- 1. Select the mounting surface according to the dimensions in Figure 1.
- 2. Use the device mounting rail as a template and mark two mounting hole locations.
- 3. Drill the two mounting holes.
- 4. Secure the device mounting rail with the two screws provided.
- 5. Snap the Transducer on to the device mounting rail.

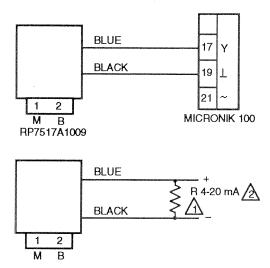
Piping.

Push on the 1/4-in. (6-mm) or 5/32-in. (4-mm) O. D. polyethylene tubing from the main and actuator to the two brass connectors. Connector 1 connects to the main; Connector 2 connects to the actuator.

NOTE: If it is necessary to remove the tubing from a connector, do not pull or cut it off. Cut the tubing a few inches away from the Transducer and reconnect the tubing with a coupling.

Wiring

Wire according to the job drawings or wiring diagram. When wiring the Transducer to a controller, observe the controller wiring rules for lead length and wire type.



Δ

R = 1352 +/- 15 $\Omega.$ USE 1% PRECISION RESISTORS OF STANDARD VALUES OF 931 AND 422 Ω IN SERIES 1/8-WATT. OBTAIN LOCALLY.



INPUT DEVICE MUST BE CAPABLE OF AT LEAST 10V OUTPUT (SOMETIMES STATED AS MAXIMUM CIRCUIT RESISTANCE WHICH FOR 10V IS 500Ω).

NOTE: THIS WILL NOT WORK FOR EVERY 4-20 mA
DEVICE AS SOME WILL NOT HAVE THE OUTPUT
VOLTAGE TO DRIVE THE CIRCUIT.

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Fig. 3. RP7517A1009 Typical Wiring Diagram.

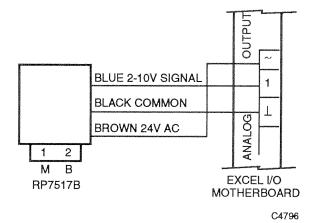


Fig. 4. RP7517B Typical Wiring Diagram.

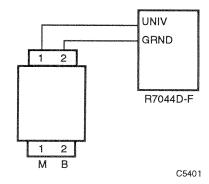


Fig. 5. RP7517A1017 Typical Wiring Diagram.

Start Up

- 1. Connect a pressure gage to the branchline connector of the Transducer.
- 2. For the RP7517B only, apply 24V ac device power between the brown and black wires (24V ac is already applied if the device is connected to the R7510/11 Excel Plus Controller).
- 3. Apply 18 psi (124 kPa) to the mainline connector of the Transducer.
- 4. With the input signal connected to the blue (signal line) and black (ground line), increase the signal until the input to the device is $+12\pm0.1$ V dc (for Excel DDC, set analog output to 125 percent).
- 5. Short out the contact pins in the Transducer with a small screwdriver (Fig. 4). The sound of discharging air should be heard.
- 6. Repeat Step 5 three times. The branchline pressure must reach a minimum of 15.0 psi (103 kPa) on the RP7517A1009 and 16.0 psi (110 kPa) on the other models.

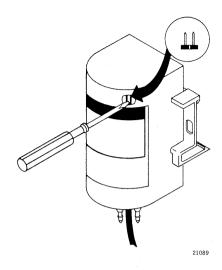


Fig. 6. RP7517A, B Electronic-Pneumatic Transducer Start Up.

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