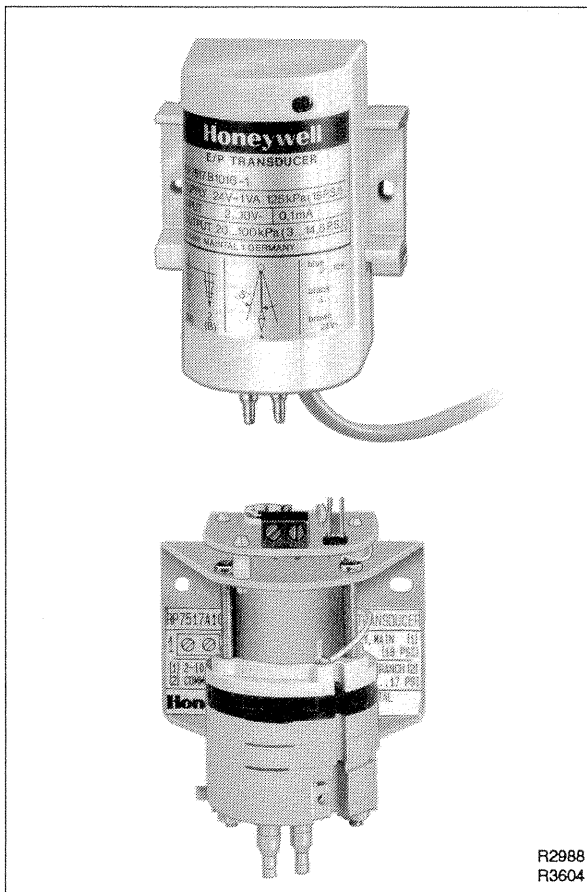


# RP7517A, B Electronic-Pneumatic Transducers

## 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.

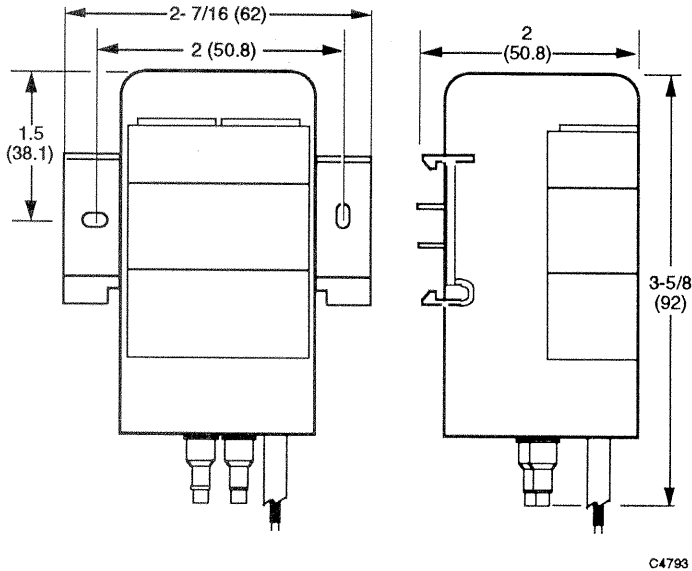


Fig. 1. RP7517A or B Electronic-Pneumatic Transducer with Cover — Approximate Dimensions in Inches (Millimeters).

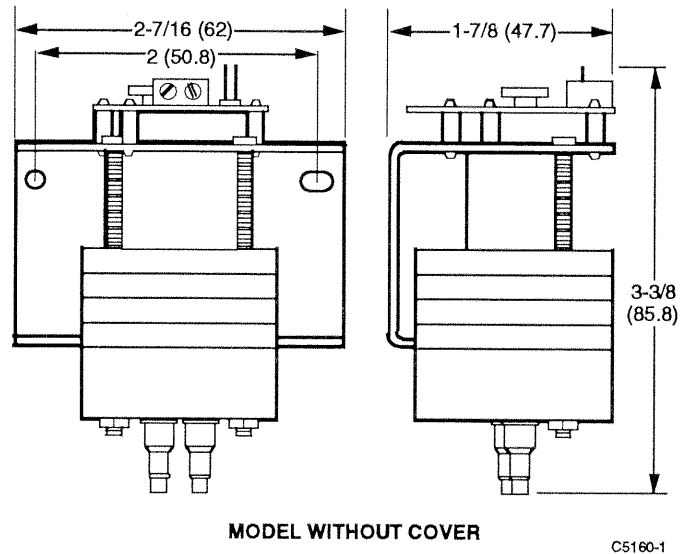


Fig. 2. RP7517A Electronic-Pneumatic Transducer without Cover — Approximate Dimensions in Inches (Millimeters).

### 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.

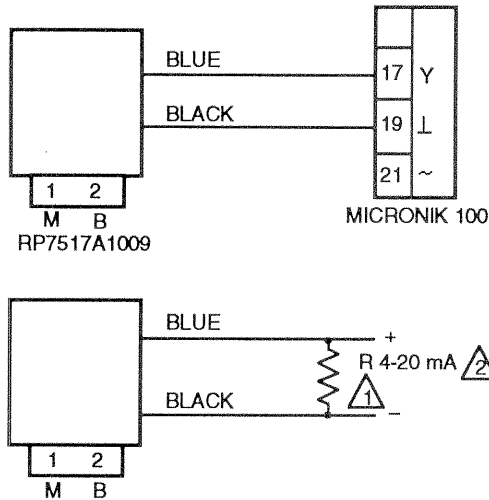
### Piping

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.



△<sub>1</sub> R = 1352 +/- 15 Ω. USE 1% PRECISION RESISTORS OF STANDARD VALUES OF 931 AND 422Ω IN SERIES 1/8-WATT. OBTAIN LOCALLY.

△<sub>2</sub> 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.

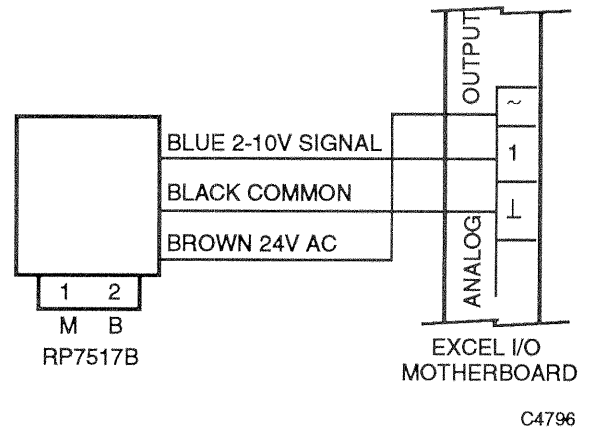
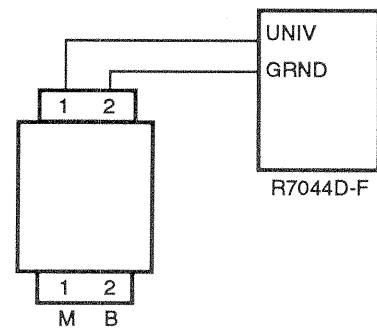


Fig. 4. RP7517B Typical Wiring Diagram.



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Fig. 5. RP7517A1017 Typical Wiring Diagram.

# Start Up

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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  $+12 \pm 0.1V$  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.

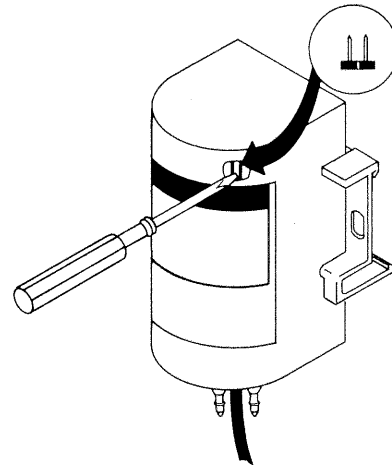


Fig. 6. RP7517A, B Electronic-Pneumatic Transducer Start Up.

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