

# PNEUMATICS & FITTINGS

## SIEMENS/POWERS TEMPERATURE TRANSMITTERS 184 SERIES



### DESCRIPTION

The **Siemens/Powers 184-00XX Series Temperature Transmitters** are direct acting, one-pipe instruments that sense temperature and transmit a proportional pneumatic signal. Normally, this signal is transmitted to a remotely located receiver gauge and/or receiver-controller. The receiver gauge would be calibrated to read directly in temperature.

### FEATURES

- **Rapid response to temperature changes over their full range**
- **Internal feedback for excellent linearity and accuracy**
- **Variety of sensing elements and temperature ranges**

### APPLICATION

The temperature transmitters are ideal for applications requiring indication with a receiver gauge and/or control with a receiver-controller.

**NEW!**

**SIEMENS  
POWERS™**

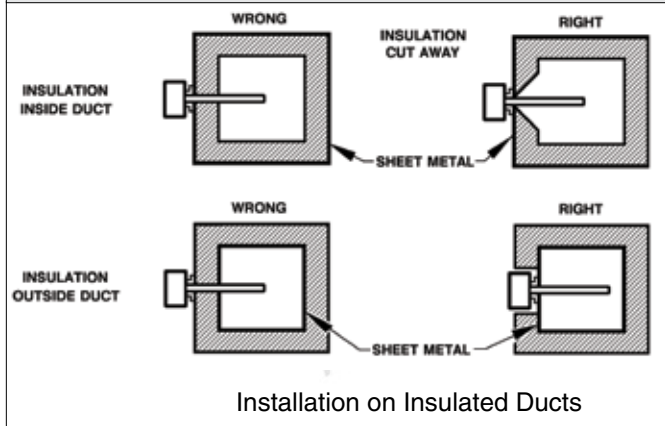


184 Series

### SPECIFICATIONS

<b>Control Action</b>	Direct acting
<b>Output Air Pressure</b>	3 to 15 psi (21 to 103 kPa)
<b>Ambient Temperature Range</b>	45 to 120°F (4.4 to 49°C)
<b>Input (Supply) Air Pressure</b>	
<b>Restrictor Size</b>	40 scim (11 ml/s)
<b>Calibration Pressure</b>	22 ± 1.0 psig (152 ± 6.9 kPa)
<b>Maximum</b>	30 psig (207 kPa)
<b>Thermal System</b>	
<b>Room</b>	Bimetal
<b>Rigid Bulb</b>	Rod and tube
<b>Remote Bulb</b>	Liquid filled
<b>Nominal Air Consumption</b>	35 scim (10 ml/sec)
<b>Mounting</b>	
<b>Room</b>	Wall terminal
<b>Rigid Bulb</b>	Mounting flange
<b>Remote Bulb</b>	Mounting flange or well bracket mounting kit
<b>Average Bulb</b>	Mounting flange
<b>Air Connection</b>	1/8" NPT
<b>Cover Finish</b>	
<b>Room</b>	Desert beige
<b>Rigid, Averaging and Remote Bulb</b>	Gray
<b>Dimensions</b>	3 11/32"H x 2 5/32"W x 1 19/32"D (8.5 x 5.5 x 4.0 cm)
<b>Warranty</b>	1 year

### INSTALLATION

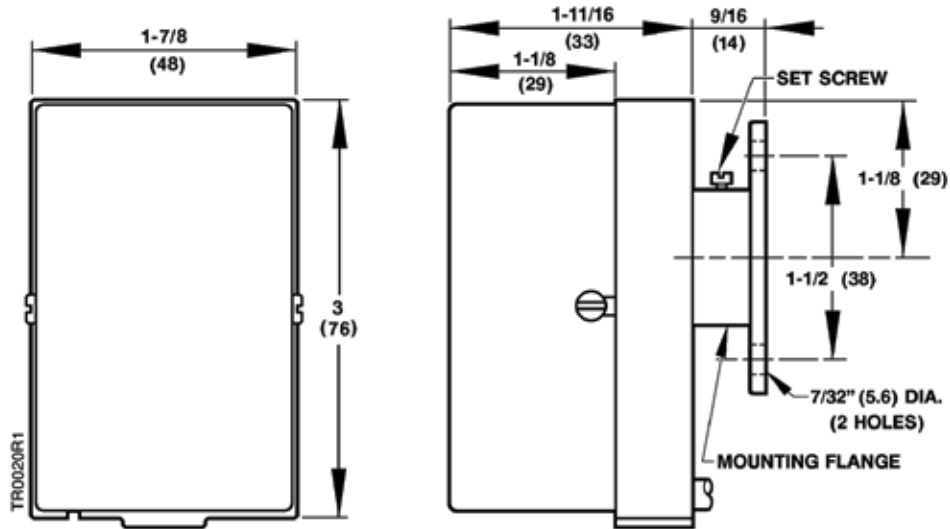




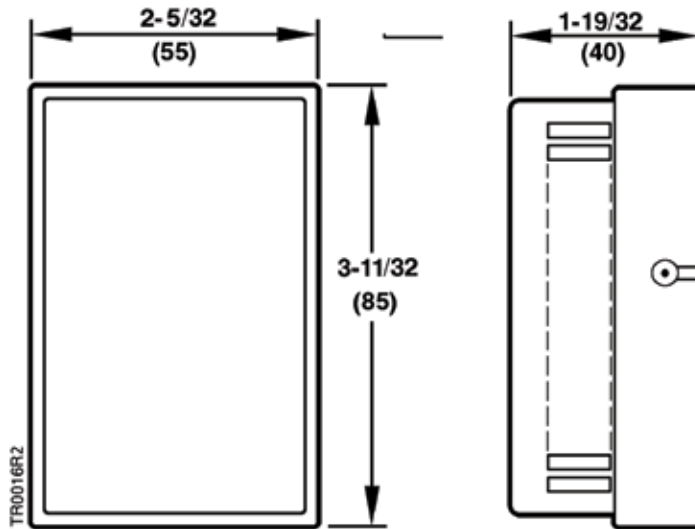
# PNEUMATICS & FITTINGS

## SIEMENS/POWERS TEMPERATURE TRANSMITTERS 184 SERIES

### DIMENSIONS



Dimensions of the Rigid Bulb and Remote Bulb Transmitters  
(Bulb not Shown)



Dimensions of the Room Transmitter

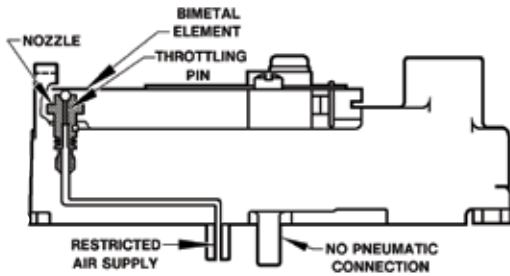
# PNEUMATICS & FITTINGS

## SIEMENS/POWERS TEMPERATURE TRANSMITTERS 184 SERIES

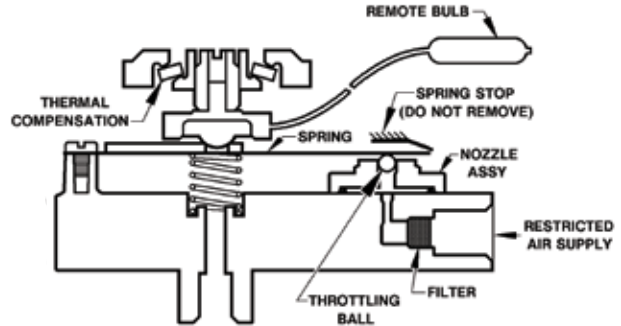


### OPERATION

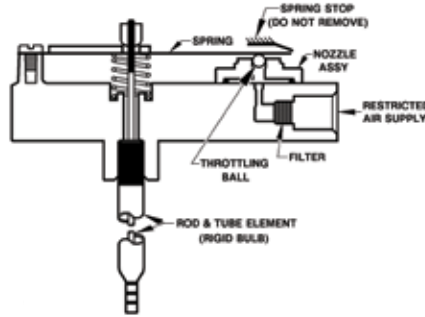
The transmitter is provided with a restricted (40 scim) supply of air. Assume a rise in temperature at the transmitter sensing element. The free end of the bimetal, the rod and tube, or the liquid-filled element moves downward. This increases the load on the throttling pin (or throttling ball) and moves it closer to the nozzle. Pressure builds up in the chamber below the nozzle until the force of the increased air pressure against the bottom of the throttling pin exactly balances the downward force of the free end of the sensing element.



Operation of the Room Transmitter



Operation of the Remote Bulb



Operation of the Rigid Bulb

### ORDERING INFORMATION

MODEL	DESCRIPTION
184-0001	Rigid bulb transmitter, 35 to 135F, range 1/4" x 9" bulb
184-0002	Rigid bulb transmitter, 50 to 100F, range 1/4" x 9" bulb
184-0003	Rigid bulb transmitter, 80 to 240F, range 1/4" x 9" bulb
184-0004	Averaging transmitter, 35 to 135F, range 3/32" x 20' averaging bulb, 12" capillary
184-0005	Remote bulb transmitter, -40 to 120F, range 1/4" x 4" bulb, 3' capillary
184-0006	Remote bulb transmitter, -40 to 120F, range 1/4" x 4" bulb, 3' capillary
184-0014	Remote bulb transmitter, 80 to 240F, range 1/4" x 4" bulb, 3' capillary
184-0015	Remote bulb transmitter, -10 to 65F, range 1/4" x 4" bulb, 3' capillary
184-0018	Remote bulb transmitter, 50 to 100F, range 1/4" x 4" bulb, 3' capillary
184-0028	Rigid bulb transmitter, 0 to 100F, range 1/4" x 9" bulb
184-0034	Remote bulb transmitter, 35 to 135F, range 1/4" x 4" bulb, 3' capillary
184-0036	Remote bulb transmitter, 0 to 100F, range 1/4" x 4" bulb, 3' capillary
184-0048	Averaging transmitter, 0 to 100F, range 3/32" x 20' averaging bulb, 12" capillary
184-0340	Room transmitter, 50 to 100F

### ACCESSORIES

Product Number	Material	Maximum Temperature °F (°C)	Max. Static Pressure psi (kPa)	Max. Shock Pressure psi (kPa)	Max. Fluid Velocity ft./sec. (m/s)	Max. Steam Velocity ft./sec (m/s)
184-118	347 St. Steel	400 (204)	650 (4478)	1000 (6890)	25 (7.62)	84 (25.6)
184-119	Copper	265 (129)	250 (1722)	400 (2756)	10 (3.05)	84 (25.6)