

# Type 200 Precision Air Relay

*With positive and negative bias adjustment*

The Type 200 Precision Air Relay is a pilot-operated, multistage 1:1 relay with a positive and negative bias adjustment capability. It accurately reproduces a signal pressure plus or minus the bias setting with consistent repeatability. Output control and stability are maintained through a high-gain-servo balanced control mechanism activated by a highly sensitive stainless steel measuring capsule.

## FEATURES

### • Highly Accurate

Controls output pressure to within 0.1%

### • Positive and Negative Bias Capability

When adjusted for positive bias, output is directly proportional to the input signal plus the bias setting. Output pressure can never go below the value of the bias setting regardless of signal pressure. When set for negative bias, the output pressure will remain at minimum until the signal pressure is some value greater than the negative bias

### • Internal Bias Adjustment

The standard Type 200 is provided with an internal bias adjustment screw, which prevents casual tampering with the bias setting

### • External Bias Adjustment

The Type 200EB is available with an optional external bias adjustment screw, which allows easy access to the bias setting

### • High Relief Capacity

The Type 200HR provides an increased exhaust capacity. Its highflow relief valve ensures quick “blow down” for release of downstream pressure

### • Stable Output

Highly stable under variable operating conditions

## Models

**Type 200** The standard relay is offered with 1/4" or 3/8" NPT porting and internal bias adjustment

**Type 200EB** External bias adjustment screw provides quick and easy access of bias setting

**Type 200HR** High relief capacity allows for quick “blow down” capability for rapid exhaust of output pressure

**Type 200EB/HR** Combines external bias adjustment with high relief capacity



## Applications

Operation of multiple devices from one controlled source over a range of pressures

Control of pressures in remote locations

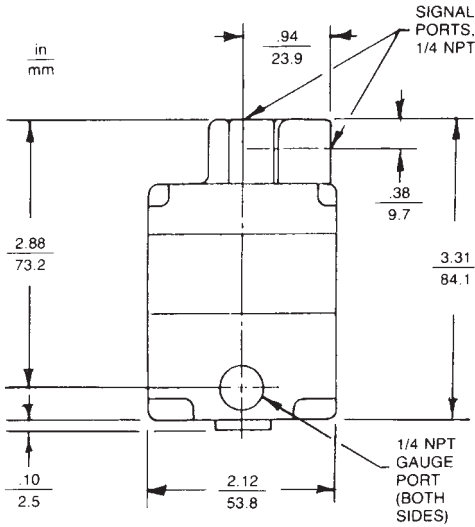
Volume boosting

Gas mixing

## Materials of Construction

<b>Body</b>	Diecast Zinc Alloy, Baked Enamel Paint
<b>Capsule and Adjusting Screw</b>	Stainless Steel Trim, Brass, Plated Steel
<b>Diaphragms</b>	Buna-N Elastomer, Polyester Fabric

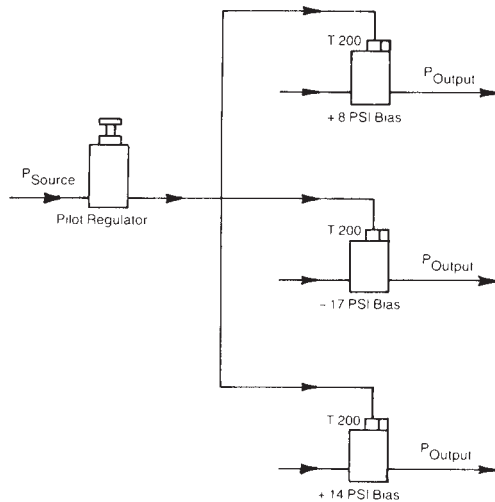
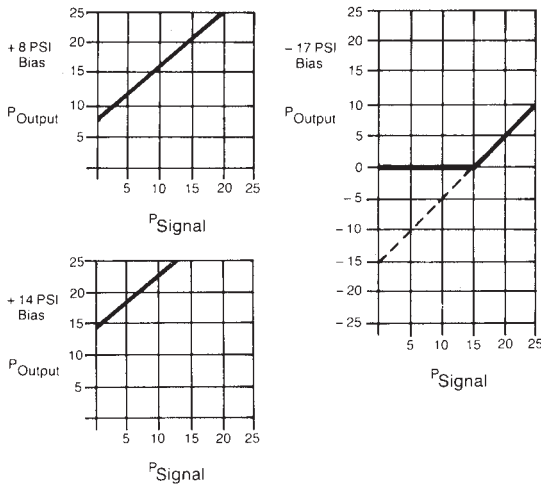
# Type 200 Dimensions



# Type 200 Specifications

<b>Flow Capacity</b>	14 scfm (25 m <sup>3</sup> /hr) (100 psig (690 kPa) supply; 20 psig (140 kPa) signal)
<b>Exhaust Capacity</b>	<b>Type 200</b> 2 scfm (3.4 m <sup>3</sup> /hr) <b>Type 200HR</b> 10 scfm (17.0 m <sup>3</sup> /hr) (Output pressure 5 psig (35 kPa) above signal pressure, no bias)
<b>Sensitivity</b>	1/8" (3.2 mm) water
<b>Effect of Supply Pressure Variation on Output</b>	Less than .005 psig (0.03 kPa) for 25 psig (170 kPa) change
<b>Bias Range</b>	±30 psig (±210 kPa)
<b>Supply Pressure</b>	150 psig (1050 kPa) Maximum
<b>Signal Pressure</b>	120 psig (800 kPa) Maximum
<b>Weight</b>	1.4 lb (635 g)
<b>Mounting</b>	In-line (Pipe)
<b>Bleed Rate</b>	Less than 0.08 scfm (0.15 m <sup>3</sup> /hr)

# Type 200 Biasing Characteristics



## Important Note

A minimum output pressure of 2 psi (14 kPa) is needed to provide bleed air to the pilot pressure chamber. Therefore the relay does not regulate below 2 psi (14 kPa). A start up spring maintains a minimum 2 psi (14 kPa) output pressure even without any signal pressure.

## Ordering Information

Type	Model Number	Port Size (NPT)	Output Range (psi)	Output Range (kPa)
200	200-BC	1/4"	2-120	15-800
200	200-CC	3/8"	2-120	15-800
200HR	210-BC	1/4"	2-120	15-800
200HR	210-CC	3/8"	2-120	15-800
200EB	220-BC	1/4"	2-120	15-800
200EB	220-CC	3/8"	2-120	15-800
200EB/HR	230-BC	1/4"	2-120	15-800
200EB/HR	230-CC	3/8"	2-120	15-800

## Options

Add proper letter at end of model number.

- G** - Pressure Gauge - 1/4 NPT back connection
- E** - Tapped Exhaust - 10-32 tapped exhaust vent and barbed bleed screw
- U** - BSP Porting - 1/4" BSP Porting
- Oxygen Compatible - Consult factory for ordering information



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