

# Type 20

## Precision Air Relays

### Features

- Extreme accuracy
- Positive and negative bias capability
- Small size
- Rugged and stable

### Description

The Type 20 Air Relay is a compact, two-stage, pilot operated 1:1 relay with positive and negative bias adjustment capability. It accepts a signal pressure and combined with the bias adjustment, maintains a resulting output pressure with an accuracy and reliability unmatched by any other pressure relay in its price range.

### Models

#### Type 20

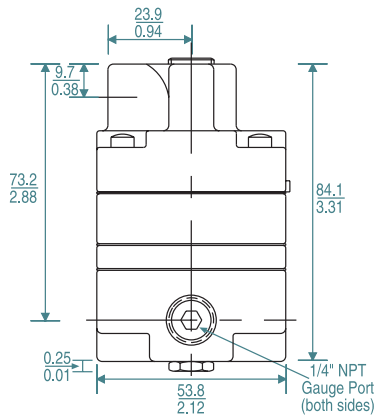
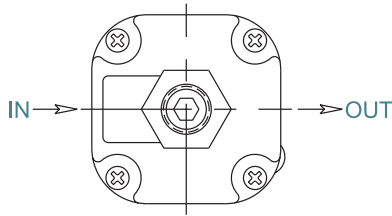
The basic relay is offered with a choice of three port sizes.

#### Type 20HR and Type 20EXHR

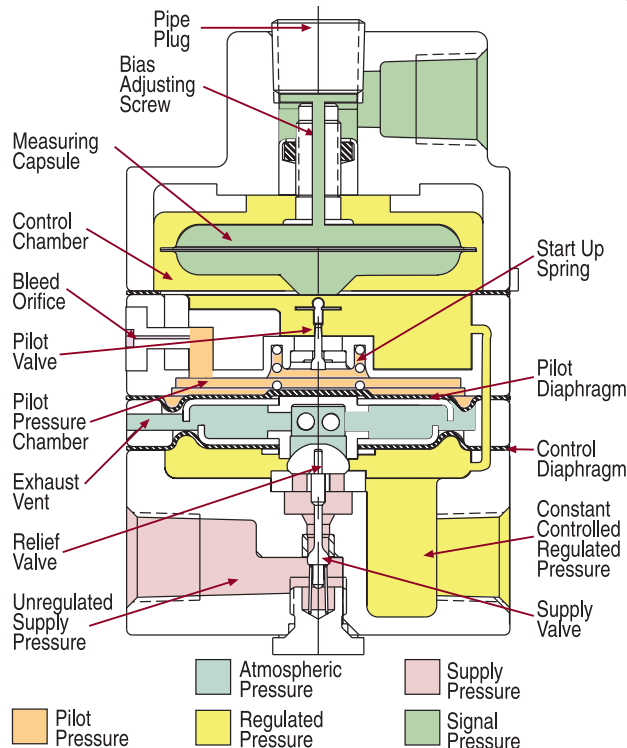
High Relief Relays - These relays provide extra fast "blowdown" for very rapid release of output pressure. The extra relief feature makes this relay suitable for cylinder return stroke actuation, air hoists, and similar applications requiring fast exhaust.

### Applications

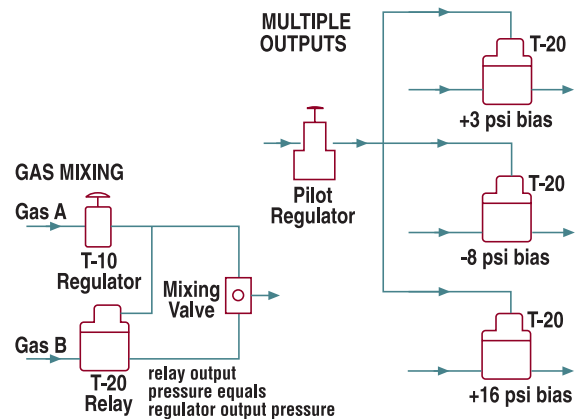
- Gate Actuators
- Air Hoists
- Disc and Shoe Brakes
- Remote Positioning Devices
- Valve Rotors
- Control Valves
- Tensioning Systems
- Web Tracking Systems



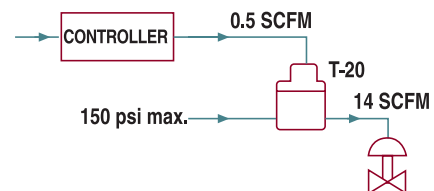
**Type 20**  
Precision Air Relay



### Type 20 Application Diagrams



#### VOLUME BOOSTING AND REMOTE LOADING

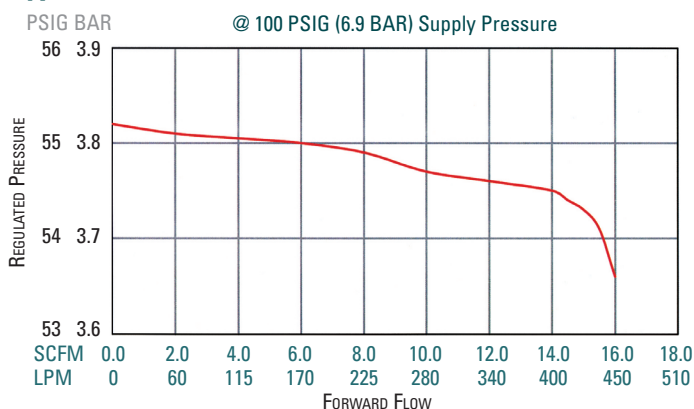


# Relays - Volume Boosters

## Comparison Chart

	Type 20	Type 20 HR	Type 20 EX HR
Maximum Supply Pressure	150 PSIG (10.3 BAR)	150 PSIG (10.3 BAR)	150 PSIG (10.3 BAR)
Sensitivity	1/8" H <sub>2</sub> O (3.2mm)	1/8" H <sub>2</sub> O (3.2mm)	1/8" H <sub>2</sub> O (3.2mm)
Supply Pressure Sensitivity	0.005 PSIG (0.35 mBAR) per 25 PSIG (1.7 BAR) change in supply pressure	0.005 PSIG (0.35 mBAR) per 25 PSIG (1.7 BAR) change in supply pressure	0.005 PSIG (0.35 mBAR) per 25 PSIG (1.7 BAR) change in supply pressure
Flow Capacity	14 SCFM (400 LPM) @ 20 PSIG (1.4 BAR) signal and 100 PSIG (6.9 BAR) supply	14 SCFM (400 LPM) @ 20 psig (1.4 BAR) signal and 100 PSIG (6.9 BAR) supply	14 SCFM (400 LPM) @ 20 PSIG (1.4 BAR) signal and 100 PSIG (6.9 BAR) supply
Exhaust Capacity	2 SCFM (55 LPM) @ 5 PSIG (0.35 BAR) above a 20 PSIG (1.4 BAR) setpoint	10 SCFM (285 LPM) @ 5 PSIG (0.35 BAR) above a 20 PSIG (1.4 BAR) setpoint	15 SCFM (425 LPM) @ 5 PSIG (0.35 BAR) above a 20 PSIG (1.4 BAR) setpoint
Temperature Limits	-20 to 160°F (-29 to 71°C)	-20 to 160°F (-29 to 71°C)	-20 to 160°F (-29 to 71°C)
Air Consumption	8 SCFH (4 LPM)	8 SCFH (4 LPM)	8 SCFH (4 LPM)
Port Size	1/8", 1/4", 3/8" NPT, BSPP, BSPT	1/8", 1/4", 3/8" NPT, BSPP, BSPT	1/8", 1/4", 3/8" NPT, BSPP, BSPT
Output Pressure Range	2-120 PSIG (0.1 – 8.3 BAR)	2-120 PSIG (0.1 – 8.3 BAR)	2-120 PSIG (0.1 – 8.3 BAR)
Maximum Signal	120 PSIG (8.3 BAR)	120 PSIG (8.3 BAR)	120 PSIG (8.3 BAR)
Weight	1.4 lb. (0.6 kg.)	1.4 lb. (0.6 kg.)	1.4 lb. (0.6 kg.)
Ratio of Accuracy for a 12 PSIG span	<0.5%	<0.5%	<0.5%

**Type 20, 20HR and 20 EXHR Flow Curve - 1/8**



**Type 72 and Typo 72 HR Flow Curves - 1/4**

