

DESCRIPTION

The Type-700BP Back Pressure Regulator is a high flow, highly accurate pneumatic relief valve with an adjustable set point. Its primary function is to provide protection against over pressurization in the downstream portion of a pneumatic system. This precision unit is capable of handling flows up to 50 SCFM. A rolling diaphragm provides the sensitivity that causes the Type-700BP to vent to atmosphere in response to the slightest upstream changes.

FEATURES

- **SENSITIVITY** - Provides quick response to controlled system pressure variation.
- **HIGH FLOW CAPACITY** - Flows up to 50 SCFM (depending on set point pressure and port size).
- **COMPENSATING FLOW CONTROL** - Venturi type velocity-pressure tube adjusts main control valve opening in accordance with velocity pressure variations of flow from controlled system.
- **ON-LINE MAINTENANCE** - Unit can be disassembled and serviced without removing from the air line.

APPLICATIONS

The Type-700BP is used in place of a standard relief valve to provide protection against excessive build-up in supply pressure lines to instruments and other sensitive control devices.

The most common application is to control the air pressure in a system supplied by a compressor. Used in conjunction with a diaphragm operated inlet restricting valve and a bleed orifice, the Back Pressure regulator relieves excess compressor pressure while activating the intake restricting valve. When the regulator shuts off, the down-stream air vents through the bleed orifice allowing the restricting valve to open.

SPECIFICATIONS

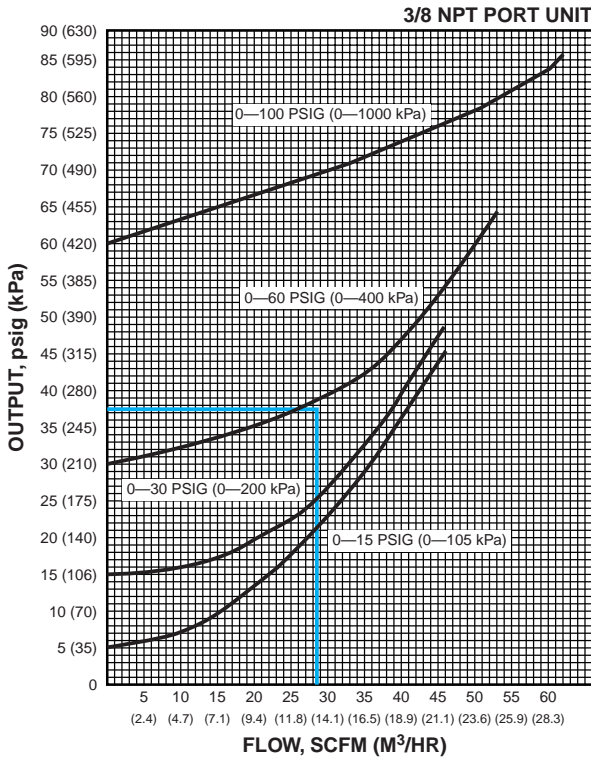
Flow CapacityUp to 50 SCFM
(85 m³/hr) depending on set point pressure and port size.
Sensitivity1/8" (3.2 mm) water
Maximum System Pressure250 psig (1725 kPa)
MountingPipe or Panel
Ambient Temperature0°F to 150°F
Weight1.5 lb (.68 Kg)
Materials of Construction: Body; diecast aluminum alloy, baked enamel finish. Trim; acetal, brass, and plated steel. Knob; phenolic plastic.



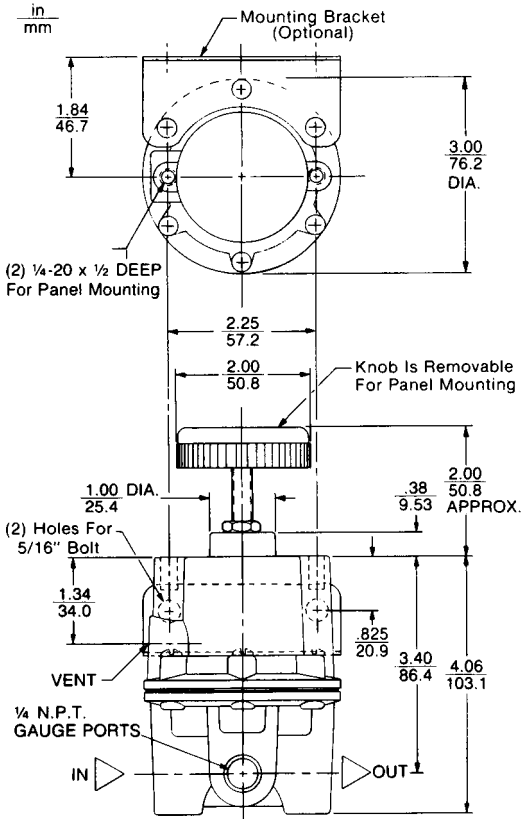
TYPE-700BP
PRECISION
BACK PRESSURE
REGULATOR

TYPE 700BP PRECISION BACK PRESSURE REGULATOR

FLOW CHARACTERISTICS

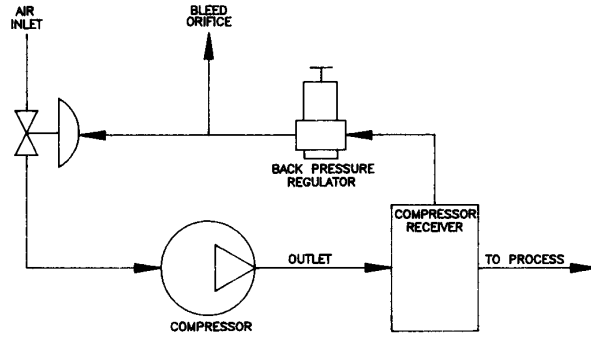


EXAMPLE: THE 0-60 PSIG RANGE UNIT SET AT 30 PSIG WILL FLOW 28 SCFM WITH AN 8 PSIG RISE IN PRESSURE ABOVE THE SET POINT. ALL VALUES ASSUME RELIEF FLOW IS TO ATMOSPHERE.



APPLICATION EXAMPLE

The Type 700BP is used to control the air pressure in a system supplied by a compressor. When system pressure reaches the Type 700BP set point, the unit starts relieving air pressure. This pressure is routed to an inlet valve causing it to close. Excess pressure vents through the bleed orifice and the valve opens to increase the compressor outlet pressure.



ORDERING INFORMATION

Part Number	Port Size (NPT)	Output Range	
		psi	kPa
710-BA	1/4"	0-2	0-15
710-BC	1/4"	0-15	0-100
710-BD	1/4"	0-30	0-200
710-BE	1/4"	1-60	7-400
710-BF	1/4"	2-150	15-1000
710-CA	3/8"	0-2	0-15
710-CC	3/8"	0-15	0-100
710-CD	3/8"	0-30	0-200
710-CE	3/8"	1-60	7-400
710-CF	3/8"	2-150	15-1000
710-DC	1/2"	0-15	0-100
710-DD	1/2"	0-30	0-200
710-DE	1/2"	1-60	7-400
710-DF	1/2"	2-150	15-1000

Options — Add proper letter onto end of part number.

- E - Tapped Exhaust:** allows captured exhaust. 1/4" NPT port.
- G - Pressure Gauge:** 2" face, back mounted. Ranges include 0-15 psig (0-105 kPa), 0-30 psig (0-200 kPa), 0-60 psig (0-400 kPa), and 0-160 psig (0-1100 kPa).
When specified with the regulator the correct range will be supplied.
- B - Mounting Bracket:** zinc-plated steel bracket for side mounting
- T - Tamperproof Cover:** prevents casual adjustment of output pressure.



8 Columbia Drive
Amherst, NH 03031 USA
603-886-9400 FAX 603-889-1844