

# Type 70

## High Flow Pressure Regulator

### Features

- High flow capacity - Up to 80 SCFM (2266 LPM)
- Responds quickly to minute changes in downstream pressure
- Dampening action of aspirator tube maintains downstream pressure
- Balanced supply valve minimizes the effect of supply pressure changes
- Bellofram's Buna-N and polyester rolling diaphragms are designed to give millions of cycles
- Honking and buzzing eliminated by action of integral baffle and aspirator tube
- Stack up construction can be disassembled and serviced without removal from air line

### Type 70 Description

The Type 70 Regulator is specifically designed for applications that require substantial flow capacity and accurate pressure controls. Flows of 80 SCFM (2250 LPM) can be attained.

Downstream pressure can be set within 0.25 in. (6.3mm) of water column and is accurately maintained under varying flow conditions with the help of an aspirator tube which adjusts the air supply in accordance with the flow velocity. A balanced supply valve, utilizing a rolling diaphragm, makes the regulator virtually immune to changes in supply pressure.

The Type 70 has a rugged precision die cast aluminum

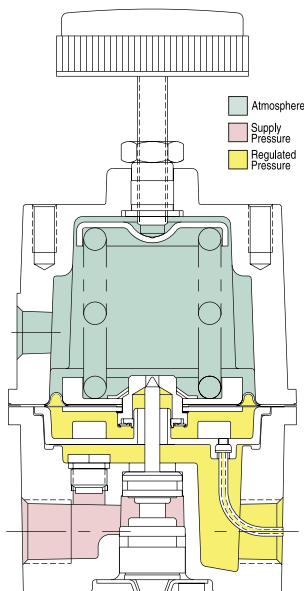
housing, and is pressure-tested and chromate-treated for internal corrosion resistance.

The regulator housing is finished with vinyl paint which resists scratching, weathering and other physical abuse.



## Type 70 & 70BP

### Pressure Regulator Series



# Type 70BP

## High Flow Back Pressure Regulator

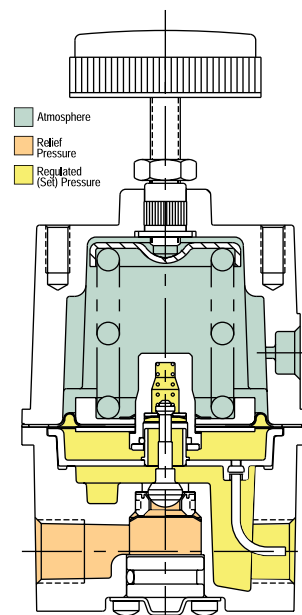
### Features

- High flow Capacity - Up to 50 SCFM (1400 LPM)
- Responds quickly to minute changes in upstream pressure
- Bellofram's Buna-N and polyester rolling diaphragms are designed to give millions of cycles
- Stack up construction can be disassembled and serviced without removal from air line

### Type 70BP Description

The Type 70 Back Pressure Regulator functions as a high flow, high precision pneumatic relief valve with an adjustable setpoint. The Type 70BP can be used in place of a standard relief valve to improve pressure control while maintaining protection against over pressurization, as in supply pressure lines to instruments and other control devices.

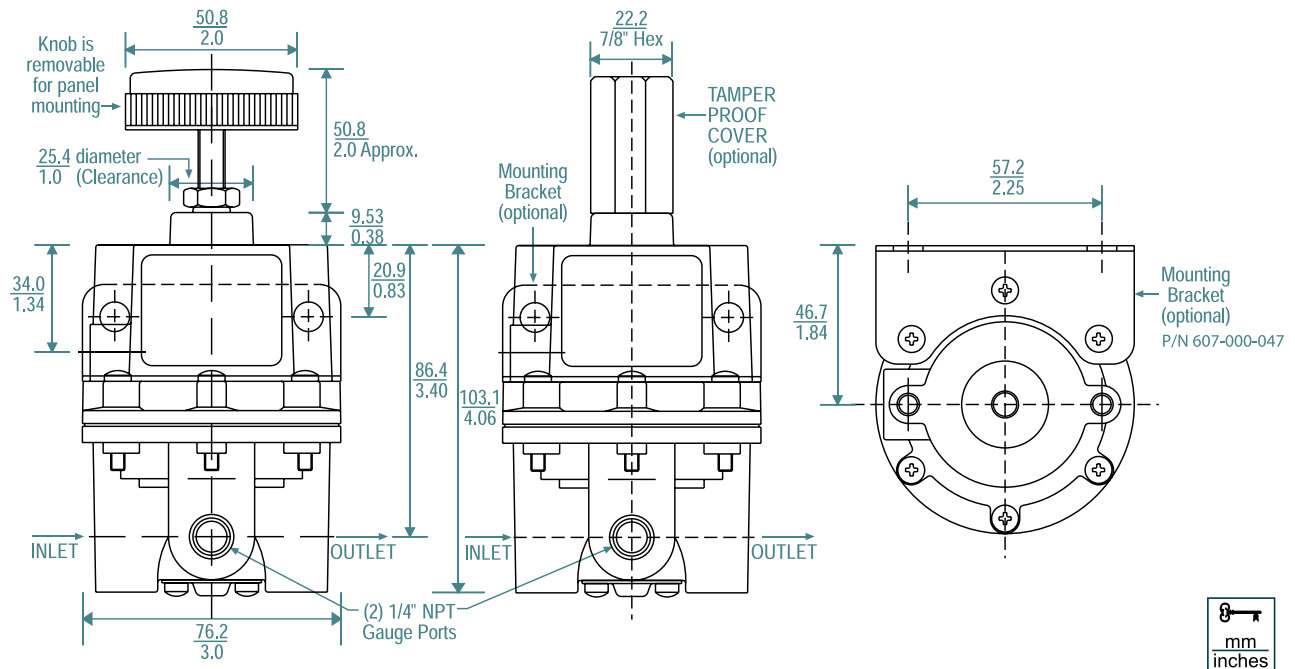
It is most often used in conjunction with a diaphragm-operated valve and bleed orifice as a compressor controller. Excess compressor pressure is relieved through the regulator to actuate the intake restricting valve. When the regulator is shut off, downstream air escapes through the bleed orifice, allowing the restricting valve to open.



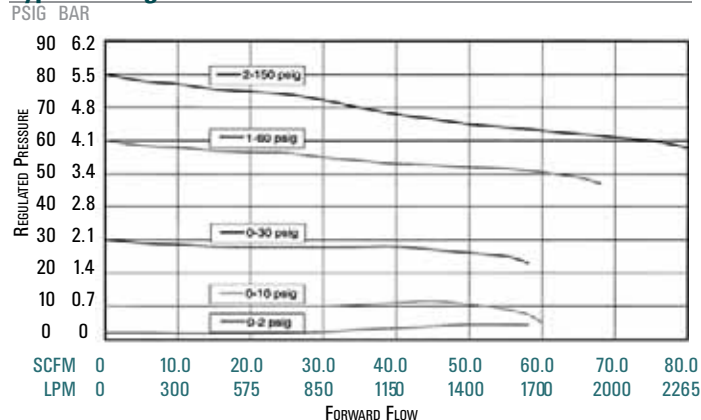
**Contact Us About  
NACE Compatible  
T70 Regulator  
"No Yellow Metals"**

	Type 70	Type 70BP
Sensitivity	1/4" (6.4 mm) Water Column	1/8" (3.2 mm) Water Column
Flow Capacity	40 (1113 LPM) 50 (1416 LPM) or 80 SCFM (2266 LPM)	50 SCFM (1416 LPM)
Effect of Supply Pressure variation (25 psig) on Outlet Pressure	< 0.025 PSIG (1.7 BAR)	N/A
Exhaust Capacity (5 above psig 20 psig set point)	4 SCFM (113 LPM)	N/A
Maximum Supply Pressure	250 PSIG (17.2 BAR)	250 PSIG (17.2 BAR)
Effect of Changes in Flow on Regulated Pressure (100 psig/6.9 BAR Supply)	2.5 PSIG (0.2 BAR) over flow 50 SCFM (1416 LPM) (3/8 NPT, 0-30 PSIG / 0-2.1 BAR range, 15 PSIG / 1 BAR set point)	N/A
Output Pressure Ranges (Type 70)	0-2 PSIG (0-0.1 BAR) 0-10 PSIG (0-0.7 BAR) 0-30 PSIG (0-2.1 BAR) 1-60 PSIG (0.1-4.1 BAR) 2-150 PSIG (0.1-10.3 BAR) 3-200 PSIG (0.2-13.8 BAR)	N/A
Set Point Ranges (Type 70BP)	N/A	0-2 PSIG (0-0.1 BAR) 0-10 PSIG (0-0.7 BAR) 0-30 PSIG (0-2.1 BAR) 0-60 PSIG (0-4.1 BAR) 0-150 PSIG (0-10.3 BAR)
Total Air Consumption @ Maximum Output	from 1.0 to 12.5 SCFH (0.5-6 LPM)	N/A
Temperature Range	-40° to 200° F (-40° to 93° C)	-40° to 200° F (-40° to 93° C)
Port Size	1/4, 3/8, 1/2 NPT, BSPT	1/4, 3/8, 1/2 NPT, BSPT
Materials of Construction	Body: Diecast aluminum with vinyl paint Adjusting Screw: Plated steel Trim: Plated steel, brass, acetal resin Diaphragm: Buna-N with polyester fabric Knob: Phenolic plastic Spring: Music wire	Body: Diecast aluminum with vinyl paint Adjusting Screw: Plated steel Trim: Acetal, brass, plated steel, nitrile Diaphragm: Buna-N with polyester fabric Knob: Phenolic plastic Spring: Music wire
Size	3.0" X 3.0" X 6.0" (76 X 76 X 152 mm)	3.0" X 3.0" X 6.0" (76 X 76 X 152 mm)
Weight	1.41 lb. (0.6 kg)	1.5 lb. (0.7 kg)
Preset Pressure	No	No
Tamper Resistant Cover	Yes	Yes
Mounting	Pipe, panel, or bracket	Pipe, panel, or bracket

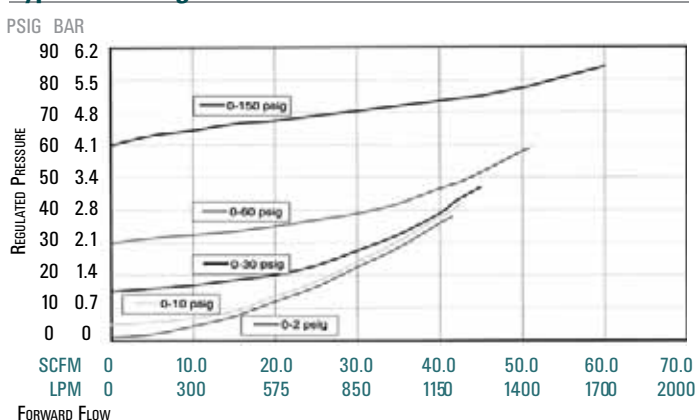
## Type 70 and 70BP Dimensional Drawings



### Type 70: Regulated Pressure VS. Flow



### Type 70BP: Regulated Pressure VS. Flow



### Type 70 and 70BP Ordering Information

	Part Number	Port Size (NPT)	Set Point Range	
			BAR	PSIG
T70	960-129-000	1/4	0-0.1	0-2
	960-174-000	3/8	0-0.1	0-2
	960-162-000	1/2	0-0.1	0-2
	960-130-000	1/4	0-0.7	0-10
	960-131-000	3/8	0-0.7	0-10
	960-163-000	1/2	0-0.7	0-10
	960-089-000	3/8	0-2.1	0-30
	960-090-000	1/4	0-2.1	0-30
	960-159-000	1/2	0-2.1	0-30
	960-091-000	3/8	0.1-4.1	1-60
	960-092-000	1/4	0.1-4.1	1-60
	960-160-000	1/2	0.1-4.1	1-60
	960-093-000	3/8	0.1-10.3	2-150
	960-094-000	1/4	0.1-10.3	2-150
	960-161-000	1/2	0.1-10.3	2-150
	960-152-000	1/4	0.2-13.8	3-200
960-153-000	3/8	0.2-13.8	3-200	
960-164-000	1/2	0.2-13.8	3-200	
T70BP	960-191-000	1/4	0-0.1	0-2
	960-192-000	3/8	0-0.1	0-2
	960-193-000	1/2	0-0.1	0-2
	960-194-000	1/4	0-0.7	0-10
	960-195-000	3/8	0-0.7	0-10
	960-196-000	1/2	0-0.7	0-10
	960-197-000	1/4	0-2.1	0-30
	960-198-000	3/8	0-2.1	0-30
	960-199-000	1/2	0-2.1	0-30
	960-200-000	1/4	0-4.1	0-60
	960-201-000	3/8	0-4.1	0-60
	960-202-000	1/2	0-4.1	0-60
	960-203-000	1/4	0-10.3	0-150
	960-204-000	3/8	0-10.3	0-150
960-205-000	1/2	0-10.3	0-150	

### Options

• = option is available s = option is standard		TYPE 70	TYPE 70BP
2	Non-Relieving	•	
3	Knob	s	s
	Sq. Head Adj. Screw	•	•
5	Epoxy Coating	•	•
6	Tapped Vent	•	
7	Mounting Bracket	•	•
8	Pressure Gauge	•	•
9	Tamper Resistant Cover	•	•
10	Low Bleed	•	
11	Check Valve	•	

### Type 70 and 70BP Option Ordering Matrix

Replace last three digits of part number with digits from table below.

Option	2	3	5	6	7	8	9	10	11
2 Non-Relieving	002	032	052	062	072	082	092		112
3 Sq. Head Adj. Screw		003	053	063	073	083		103	113
5 Epoxy Finish			005	065	075	085	095	105	115
6 Tapped Vent				006	076	086	096	106	116
7 Mounting Bracket					007	087	097	107	117
8 Pressure Gauge						008	098	108	118
9 Tamper-Resistant Cover							009	109	119
10 Low Bleed								010	110
11 Check Valve									011

### Options and Accessories

#### Non-Relieving

Used in applications where it is desirable to relieve pressure downstream of the regulator, for some constant flow applications, and where the gas flowing through the regulator must not escape at the regulator. Non-relieving regulators should not be used for low or no flow applications.

#### Corrosive Resistant Epoxy Finish

An epoxy paint applied to the body of the regulator exterior surfaces to provide increased corrosion resistance.

#### Tapped Vent

Allows installation of plumbing to capture exhaust air.

#### Mounting Bracket

Steel (dichromate finish) bracket for side mounting.

#### Pressure Gauge

Dual scale 2 in. (50.8 mm) gauges. Ranges include 0-30 PSIG (0-200 kPa), 0-60 PSIG (0-400 kPa), 0-100 PSIG (0-700 kPa) and 0-160 PSIG (0-1100 kPa). When specified with regulator, the correct range will be supplied.

#### Tamper Resistant Cover

An aluminum tubular cover placed over a slotted head adjusting screw and screwed onto the bonnet of the regulator with a wrench. Prevents ordinary hand adjustments.

#### Low Bleed

Reduces steady-state air consumption by approximately 50%.

#### Check Valve

Allows quick dumping of output line pressure through the supply air line when the supply is shut down.