

**mB MARSH BELLOFRAM®**

# Type-41

Type 41-1

Type 41-2

Precision Air  
Regulators



Precision  
Control  
Devices

ISO 9002  
certified

## TYPE 41-1 AND TYPE 41-2 PRECISION AIR REGULATORS

### FEATURES

- Superior regulation characteristics
- Rugged, corrosion-resistant construction
- Excellent stability and repeatability
- Self-relieving of excess downstream pressure
- Low droop at high flow
- Mounting options available

### DESCRIPTION

The Type 41 regulators are designed for applications requiring high flow capacity, low droop, high accuracy, and fine adjustment sensitivity. The use of Bellofram's rolling diaphragm provides greater sensitivity and improved accuracy. In addition, Type 41 regulators offer reduced over-all size and several mounting options, providing direct interchangeability with more expensive competitors' units.

Ruggedly designed and constructed, the Type 41 regulators have housings of precision-cast aluminum. They are pressure tested, and are chromate treated for internal corrosion resistance. Every regulator is finished with vinyl paint which resists scratching, weathering and other physical abuse.

Careful design and quality materials throughout assure long, trouble-free operation in the most difficult industrial environments. A rubberized, soft-seat valve stem provides stability and "forgives" dirt and other foreign matter. An aspirator maintains downstream pressure and compensates for droop when high flow occurs. The gauge port is convenient for gauge installation and can also be used as an additional full flow outlet.

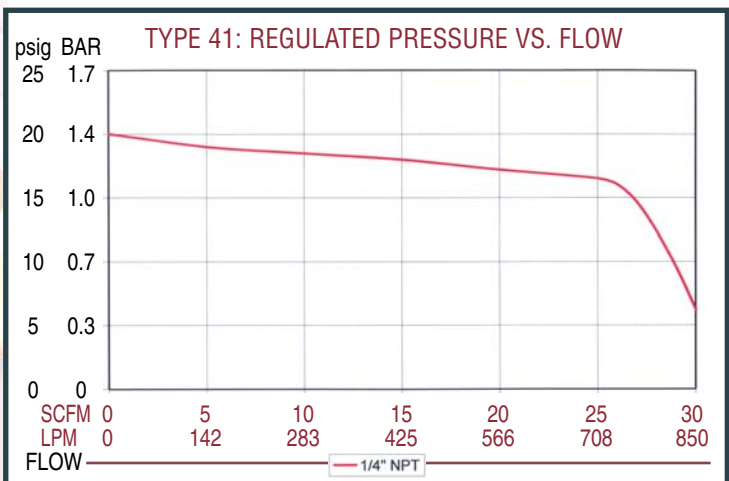
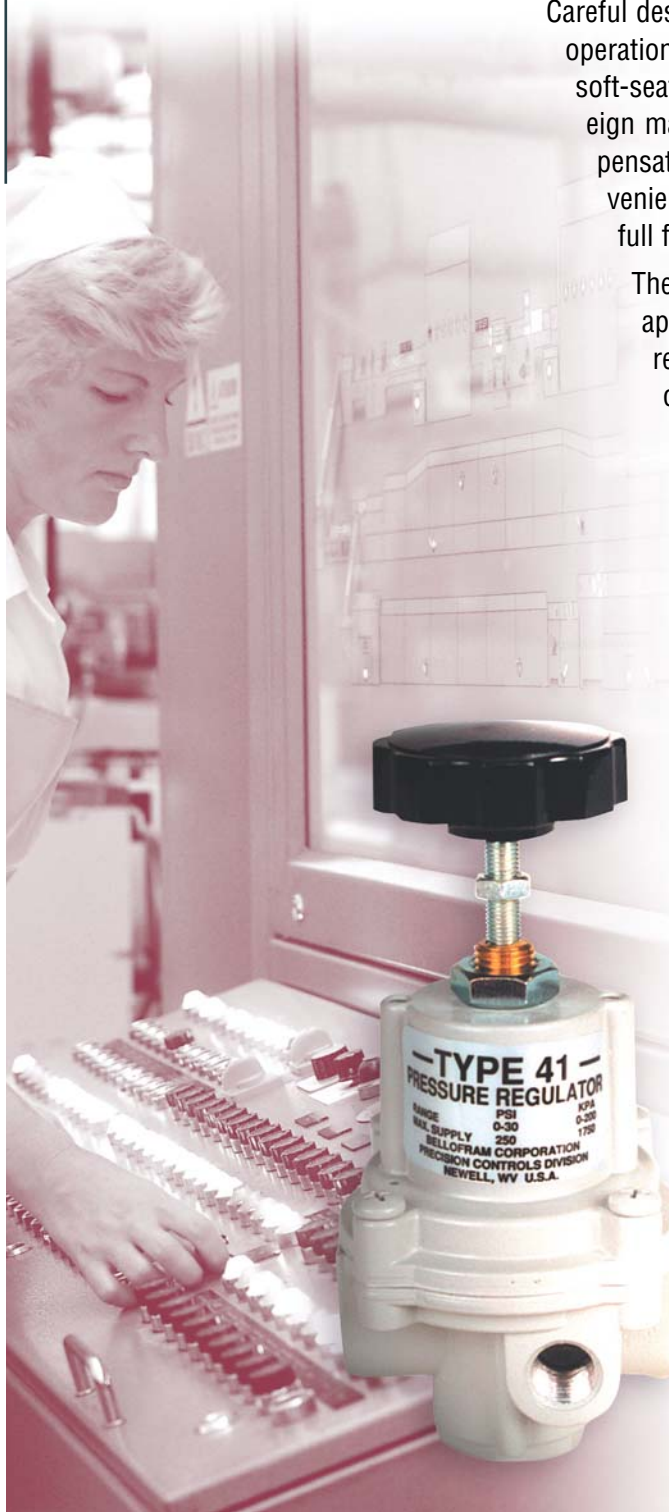
The design of these regulators is especially well suited for panel applications due to ease of mounting (only one panel hole required), small size, adjustment sensitivity (32 threads per inch on the adjusting screw), and knob.

### MODELS

The Type 41 comes in two versions, Type 41-1 and Type 41-2. These two regulators offer the same performance in two slightly different packages.

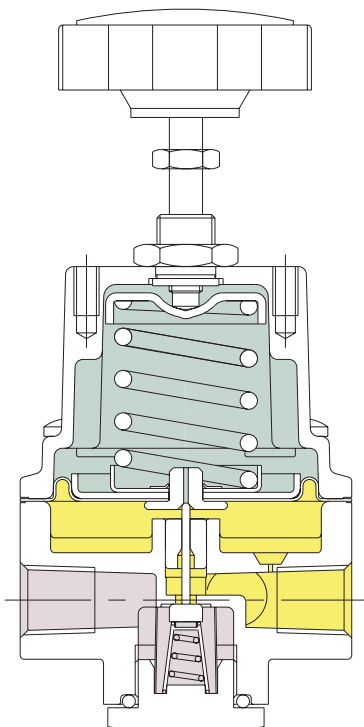
**TYPE 41-1:** This unit comes standard with 1/4" NPT ports and a knob, and can be panel mounted using either the center nut or the threaded shoulder holes, spaced 1.5 in. (38.1 mm) center-to-center.

**TYPE 41-2 :** This unit comes standard with 1/4" NPT ports, a knob and a bonnet vent port which can be tapped for a 1/4" NPT fitting if desired. It can be panel mounted using either the center nut or the threaded shoulder holes, spaced 1.25 in. (32.7 mm) center-to-center.



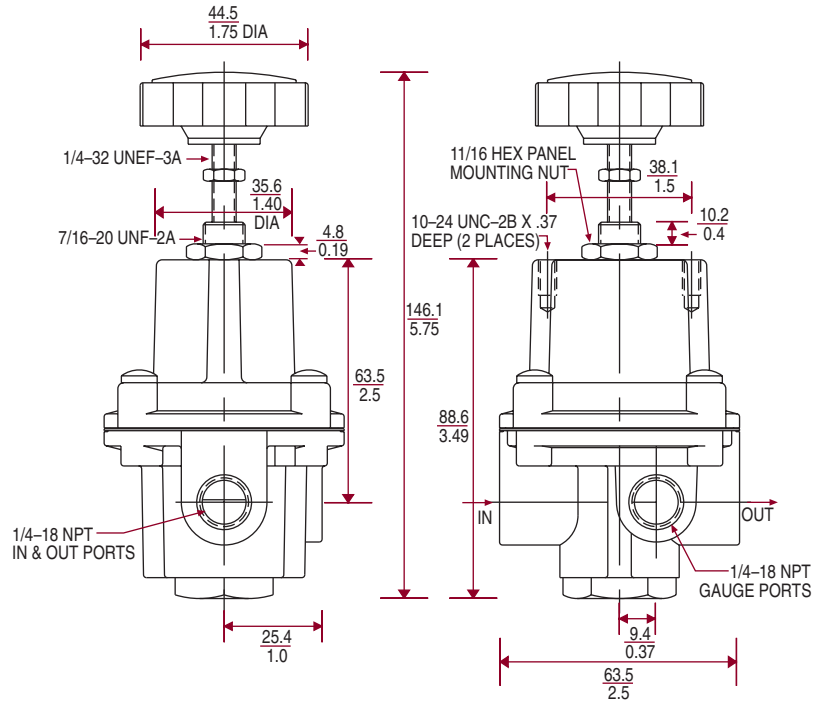
## TYPE 41 Regulator

Sensitivity	1" Water Column (2.5 cm)
Effect of Supply Pressure variation (25 psig) on Outlet Pressure	± 0.35 psig (24 mBAR)
Exhaust Capacity (5 psig above 20 psig set point)	0.1-0.45 SCFM Typical (2.8 - 12.7 LPM)
Max Supply Pressure	250 psig (17.2 BAR)
Flow Capacity at 100 psig (6.9 BAR) supply and 20 psig (1.4 BAR) outlet	25 SCFM (700 LPM)
Effect of Changes in Flow on Regulated Pressure (100 psig / 6.9 BAR Supply)	1 psig (0.07 BAR) over flow of 10 SCFM (0-30 psig / 0-2.1 BAR range, 1/4" NPT, 20 psig / 1.4 BAR set point)
Output Pressure Ranges	0-2 psig (0-0.14 BAR) 0-10 psig (0-0.69 BAR) 0-30 psig (0-2.1 BAR) 0-60 psig (0-4.1 BAR) 0-100 psig (0-6.9 BAR)
Total Air Consumption @ Maximum Output	6 SCFH (2.8 LPM) (20 psi / 1.4 BAR output)
Port Size	1/4" 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
Mounting Options	Pipe, panel, or bracket

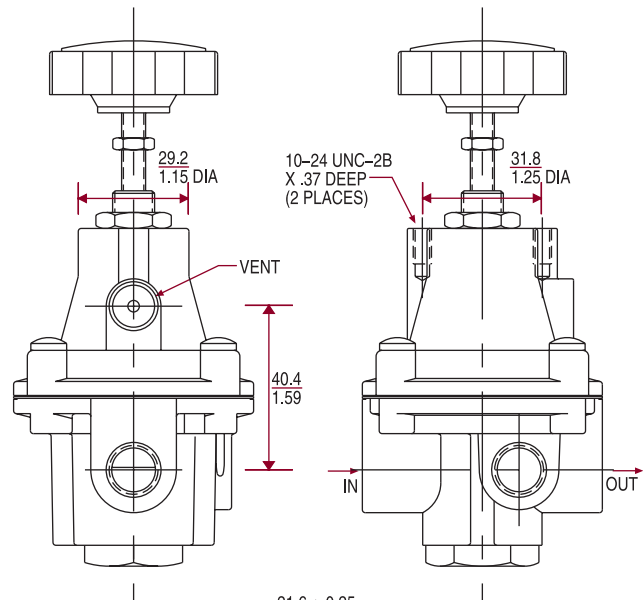


Atmospheric Pressure
  Supply Pressure
  Regulated Pressure

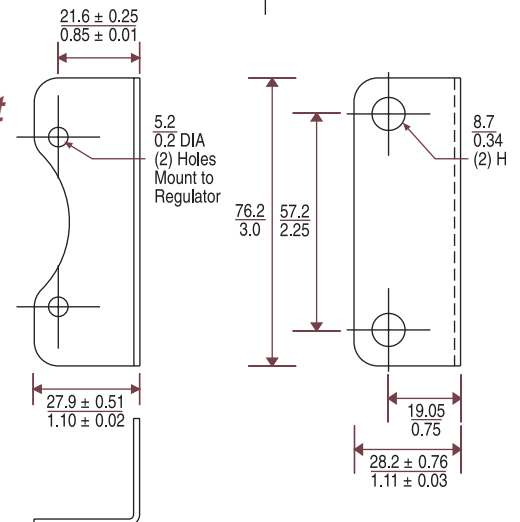
### Dimensions for Type 41-1



### Dimensions for Type 41-2 (same as 41-1 except where indicated)



### Mounting Bracket



**ORDERING INFORMATION**

Part Number	Port Size (NPT)	Set Point Range		
		BAR	psig	
T-41-1	1/4"	960-179-000	0-0.14	0-2
		962-025-000	0-0.69	0-10
		960-170-000	0-2.1	0-30
		960-171-000	0-4.1	0-60
		960-172-000	0-6.9	0-100
T-41-2	1/4"	960-949-000	0-0.14	0-2
		960-978-000	0-0.69	0-10
		960-181-000	0-2.1	0-30
		960-182-000	0-4.1	0-60
		960-183-000	0-6.9	0-100

OPTIONS		
	• = option is available	s = option is standard
Type	41-1	41-2
1 Fluorocarbon Pintle	•	•
2 Non-Relieving	•	•
5 Epoxy Coating	•	•
6 Tapped Vent		•
7 Mounting Bracket	•	•
8 Pressure Gauge	•	•

**OPTION ORDERING MATRIX:**  
Add three digits from table below to end of part number.

OPTION	1	2	5	6	7	8
1 Fluorocarbon Pintle	001	021	051	061	071	081
2 Non-Relieving		002	052	062	072	082
5 Epoxy Coating			005	065	075	085
6 Tapped Vented				006	076	086
7 Mounting Bracket					007	087
8 Pressure Gauge						008

**REGULATOR OPTIONS & ACCESSORIES**

**FLUOROCARBON PINTLE**

A special elastomeric pintle used where elements in the supply air, such as flame retardant synthetic lubricants, are particularly destructive to ordinary pintle material.

**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 outside surface of the regulator to provide increased resistance to corrosive environments.

**TAPPED VENT (41-2 only)**

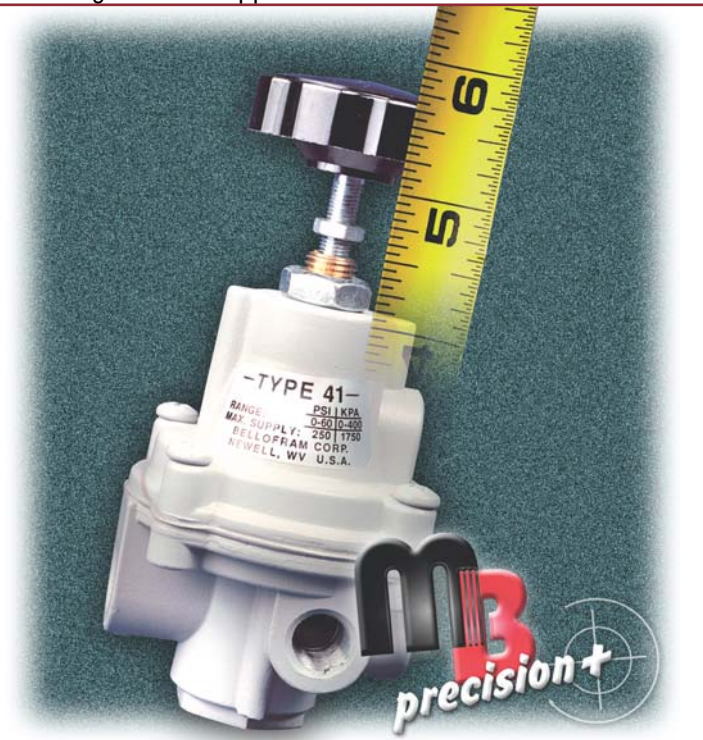
Allows installation of plumbing to capture exhaust air.

**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.



**IMPORTANT NOTICE:** Our recommendations, if any, for the use of this product are based on tests believed to be reliable. The greatest care is exercised in the selection of our raw materials and in our manufacturing, no guarantee or warranty, express or implied is made as to such use or effects incidental to such use, handling or possession or the results to be obtained, whether in accordance with the directions or claimed so to be. The manufacturer expressly disclaims responsibility therefor. Furthermore, nothing contained herein shall be construed as a recommendation to use any product in conflict with existing laws and/or patents covering any material use.

