

numatics®

Precision Regulators



www.numatics.com

Table of Contents

Features and Benefits	3
Electropneumatic Transducer	4-5
Economy Miniature Electropneumatic Transducer	6-7
Miniature Electropneumatic Transducer	8-9
Precision Regulator	10-11
High Flow Precision Regulator	12-13
Ratio Relay Volume Booster	14-15
Instrument Air Regulator	16-17
Replacement Parts and Kits	18



1. Economy Miniature Electro-Pneumatic Transducer – R84 Series

- I/P and E/P Versions
- Magnet Coil Technology

2. High Flow Precision Regulator – R88 Series

- R880 High Flow Regulator
- R881 Back Pressure Precision Regulator

3. Ratio Relay Volume Booster – R87 Series

- Precision Air Pilot Regulator
- 1:1 and 1:6 Ratios Available

4. Instrument Air Regulator – R89 Series

- Precision Regulator
- Integral 5 Micron Filter – Manual Drain

5. Electro-Pneumatic Transducer – R83 Series

- I/P and E/P Versions
- Magnet Coil Technology

6. Precision Regulator – R80 Series

- R800 Standard Series
- R820 High Relief Series

7. Miniature Electro-Pneumatic Transducer – R85 Series

- I/P and E/P Versions
- Piezo Electric Technology

R89 Series

Application

The Instrument Air Regulator is designed to provide clean, accurate air pressure to instruments, valves, and other automatic control equipment. It is used extensively to supply air to pneumatic controllers, transmitters, transducers, valve positioners, air cylinders, and a wide range of pneumatic control systems.

Features

- Stable output and repeatability
- Corrosion-resistant construction
- 5 micron depth filter
- Self-relieving
- Low droop at high flow levels
- Tight shut off

Materials of Construction

Body: die cast aluminum alloy, iridite, baked epoxy finish

Filter: 5 micron phenolic impregnated cellulose

Diaphragms: nitrile elastomer and nylon fabric

Valve Seat Plug: nitrile elastomer

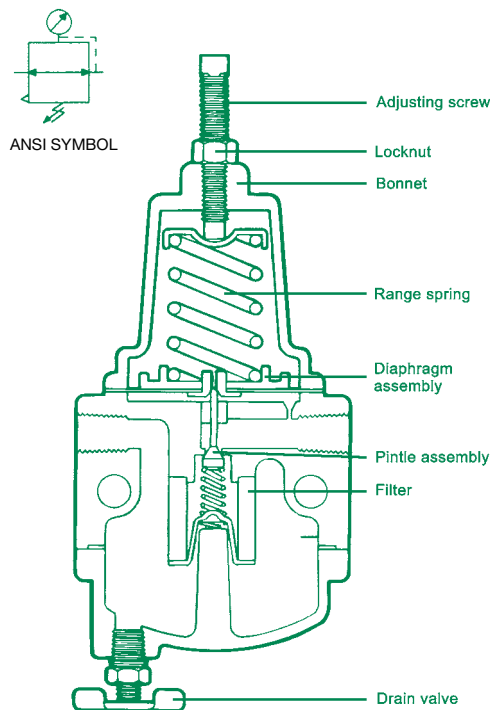
Additional Materials: brass, zinc, plated steel, acetal

Mounting Bracket

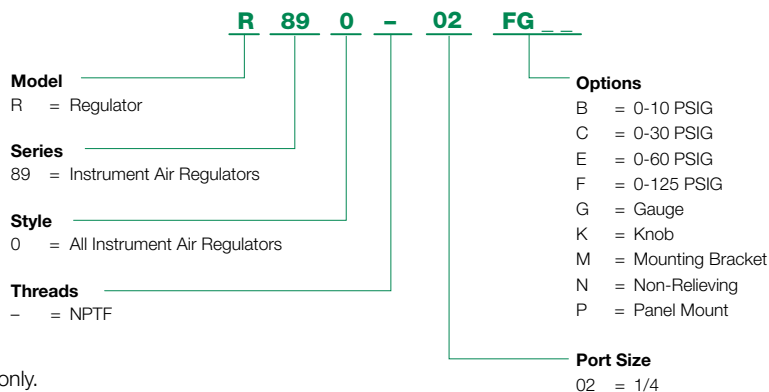
The mounting bracket for the R89 Series Instrument Air Regulator, part number PK89, is available and sold separately.

Specifications

	Instrument Air Regulator R89 Series
Port Size	1/4 NPT
Standard Output Pressure	0 - 120 PSIG (0 - 800 kPa)
Maximum Supply Pressure	250 PSIG (1700 kPa)
Mounting	pipe or integral mounting
Flow Capacity	see flow characteristics (next page)
Exhaust Capacity	.1 SCFM (.17 m3/hr) @ 5 PSIG (35 kPa) above set point
Sensitivity	1" (2.5 cm) of water
Air Consumption	less than 5 SCFH (.17 m3/hr)
Effect of Supply Pressure Variation:	less than .2 PSIG (1.4 kPa) @ 25 PSI (170 kPa) change
Weight	1.6 lbs (.74 kg)



How To Order

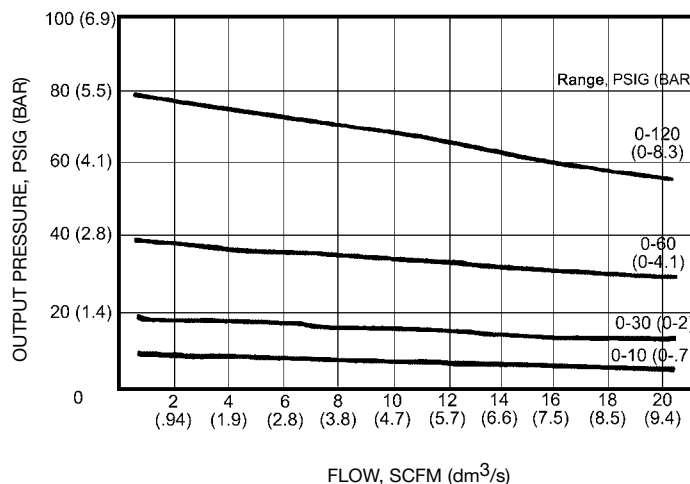


Note: R89 Series available in NPT only.

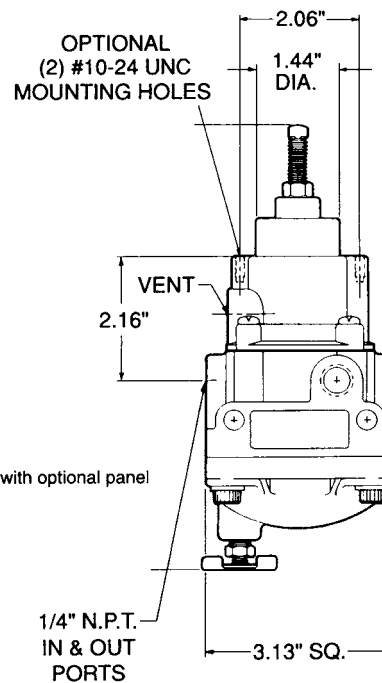
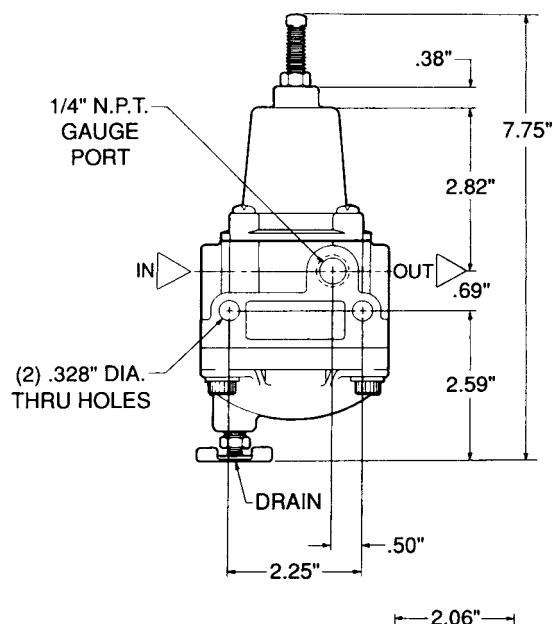
Flow Ratings (based on 100 PSIG inlet)



R890-02B pictured



Dimensions: Inches (mm)



Note:
This view shown with optional panel mount capability.

Precision Regulators

Precision Regulator Repair Kits	
Kit #	Description
RKR800D	for 2-40 pressure range models
RKR800E	for 2-60 pressure range models
RKR800F	for 2-120 pressure range models
RKR820F	for 2-120 pressure range models

Replacement Adjustment Knob Kits	
Kit #	Description
RP8002	for R800 and R820 models

Electropneumatic Transducers

Electropneumatic Transducer Repair Kits	
Kit #	Description
RKR831BC	for 3-15 and 3-27 pressure range models
RKR831EF	for 2-60 and 3-120 pressure range models

High Flow Precision Regulators

Regulator Repair Kits	
Kit #	Description
RKR880A	for 0-2 pressure range models
RKR880B	for 0-15 pressure range models
RKR880C	for 0-30 pressure range models
RKR880E	for 1-60 pressure range models
RKR880F	for 2-150 pressure range models
RKR881	for back pressure regulator

Replacement Adjustment Knob Kits	
Kit #	Description
RP81	for R880 models

Mounting Brackets

High Flow Precision Regulator	
Kit #	Description
PK80	80 & 82 Series Bracket
PK88	87 & 82 Series Bracket
PK89	89 Series Bracket

Instrument Air Regulators

Instrument Air Regulator Repair Kits	
Kit #	Description
RKR89	for all models

NUMATICS®

World Class Supplier of Pneumatic Components



World Headquarters

USA Numatics, Incorporated

46280 Dylan Drive
Novi, Michigan 48377

P: 248-596-3200
F: 248-596-3201

Canada Numatics, Ltd

P: 519-758-2700
F: 519-758-5540

México - Ascomatica SA de CV

P: 52 55 58 09 56 40 (DF y Area metropolitana)
P: 01 800 000 ASCO (2726) (Interior de la República)
F: 52 55 58 09 56 60

Brazil Ascoval Ind.e Comercio Ltda

P: (55) 11-4208-1700
F: (55) 11-4195-3970