

1 YEAR
WARRANTY

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PRG98 Series **Mini Precision** **Air Pressure Regulator**



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PRG98 Series

Miniature Precision Air Pressure Regulator Installation, Operation and Maintenance Instructions

The PRG98 Series miniature precision air pressure regulator is designed to provide the highest level of regulation accuracy and repeatability available to control equipment in a lightweight, compact housing. The PRG98 is ideal for applications that require exact pressure control and substantial flow capacity under variable operating conditions and limited space.

SPECIFICATIONS

Outputs	0.7 - 30 psig 0.05 - 2 BAR 1.4 - 60 psig 0.1 - 4 BAR 1.4 - 120 psig 0.1 - 8 BAR
Flow Capacity	14 scfm (396 NI/min)
Exhaust Capacity	7 scfm (199 NI/min)
Sensitivity	0.25 in. (6.4mm) water
Supply Pressure max.	150 psig (10 BAR)
Supply Pressure Sensitivity	0.5 psig (0.034 BAR) for a 100 psig (6.9 BAR) change
Air Consumption	6.0 scfh (170 NI/min) maximum at 150 psig (10 BAR) supply
Repeatability	+ 0.3% of span
Approximate Size (inches)	1.38 x 1.38 x 3.88
Approximate Size (mm)	35.1 x 35.1 x 98.5
Temperature Limits	0°F to 160°F (-18°C to 71°C)
Weight	0.35 lb (0.16 kg)
Port Size NPT/BSP	1.8" (In, Out, Gauge (2))

MATERIALS OF CONSTRUCTION

Housing	Diecast aluminum alloy, chromate and epoxy paint
Elastomers	Nitrile
Trim	Zinc-plated steel
Additional Materials	Brass, aluminum, stainless steel, zinc-plated steel

1. INSTALLATION

1.1 Pre-Installation Requirements

- 1.1.1 These products are intended for use with industrial compressed air systems only.

CAUTION *Contact factory prior to use with other gases.*

- 1.1.2 Clean all pipe lines to remove dirt and scale prior to installation.

NOTE *Failures attributable to contamination are not covered by the warranty.*

CAUTION *This instrument vents to atmosphere. The use of supply gas other than air may create a hazardous environment.*

- 1.1.3 A filter (40 micron or less is recommended) should be installed ahead of the regulator to prevent foreign matter in the air line from entering the regulator.

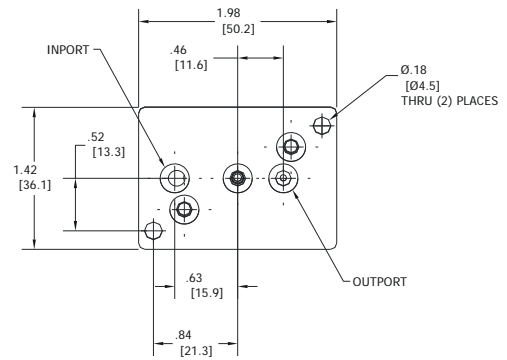
1.2 Panel Mounting

- 1.2.1 Install regulator in air line; body is fitted with a 1/8" NPT/BSP for inlet and outlet connections. The regulator can be mounted in any position without affecting its operation. Apply a small amount of compound to the male threads only.
- 1.2.2 Inlet and outlet connections are labeled and should be tightly secured. Make sure all connections are right and that the exhaust vents in the bottom and side of the regulator are not blocked.
- 1.2.3 For panel mounting, the panel mounting nut should be tightened with a torque of 60 in. lbs.

CAUTION *Repeated cycling of supply pressure may cause increased leakage and premature product failure.*

1.3 Manifold Mounting

- 1.3.1 Install supplied O-rings into IN port and OUT port counterbores before mounting to manifold.
- 1.3.2 Venting will occur through center hole of mounting plate; Prevent obstruction for proper venting.



2. OPERATION

2.1 Operation

- 2.1.1 Turn on the supply pressure slowly and then turn the adjusting knob until the desired output pressure is reached.

NOTE

Since this instrument utilizes an air bleed servo-control action, a slight sound of escaping air may be heard in the area of the housing. This is normal and is required for the precise control which this regulator offers.

3. MAINTENANCE AND REPAIRS

3.1 Repairs

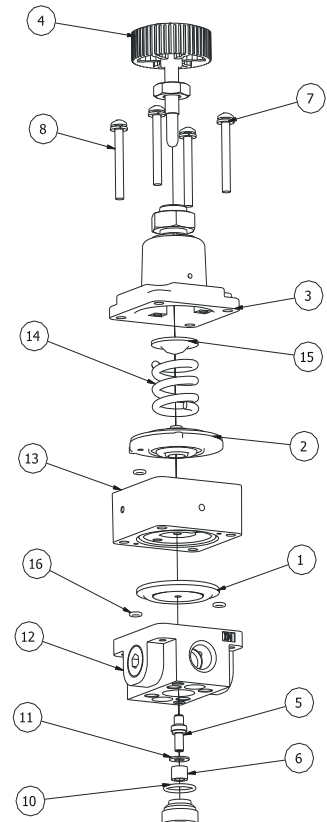
- 3.1.1 In the event of unit failure, the PRG98 can be returned to the factory through point of purchase for repair during the warranty period.
- 3.1.2 All units returned for repair must be authorized prior to receipt at the factory. Contact a representative at the point of purchase to receive a Return Authorization Number.
- 3.1.3 Repair kits for the PRG98 are available. Repair Kit P/N: 449-871-105

Parts List		
ITEM	QTY	DESCRIPTION
1	1*	LOWER DIAPHRAGM ASS'Y
2	1*	SIGNAL DIAPHRAGM ASS'Y
3	1	BONNET ASSEMBLY
4	1	KNOB ASSEMBLY
5	1*	PINTLE
6	1*	RUBBER SLEEVE
7	4	LOCK WASHER
8	4	4-40-UNC BUILD SCREW

*INCLUDED IN REPAIR KIT

Parts List		
ITEM	QTY	DESCRIPTION
9	1	BOTTOM PLUG
10	1*	BODY O-RING
11	1	PINTLE WASHER
12	1	BODY
13	1	HOUSING
14	1	SPRING
15	1	SPRING GUIDE
16	3*	O-RING, SMALL

*INCLUDED IN REPAIR KIT



WARNING

These products are intended for use in industrial compressed-air systems only. Do not use these products where pressures and temperatures can exceed those listed under Specifications.

Before using these products with fluids other than air, for non-industrial applications, life-support systems, or other applications not within published specifications, consult ControlAir, Inc.



WARRANTY/DISCLAIMER

OMEGA ENGINEERING, INC. warrants this unit to be free of defects in materials and workmanship for a period of **13 months** from date of purchase. OMEGA's WARRANTY adds an additional one (1) month grace period to the normal **one (1) year product warranty** to cover handling and shipping time. This ensures that OMEGA's customers receive maximum coverage on each product.

If the unit malfunctions, it must be returned to the factory for evaluation. OMEGA's Customer Service Department will issue an Authorized Return (AR) number immediately upon phone or written request. Upon examination by OMEGA, if the unit is found to be defective, it will be repaired or replaced at no charge. OMEGA's WARRANTY does not apply to defects resulting from any action of the purchaser, including but not limited to mishandling, improper interfacing, operation outside of design limits, improper repair, or unauthorized modification. This WARRANTY is VOID if the unit shows evidence of having been tampered with or shows evidence of having been damaged as a result of excessive corrosion; or current, heat, moisture or vibration; improper specification; misapplication; misuse or other operating conditions outside of OMEGA's control. Components in which wear is not warranted, include but are not limited to contact points, fuses, and triacs.

OMEGA is pleased to offer suggestions on the use of its various products. However, OMEGA neither assumes responsibility for any omissions or errors nor assumes liability for any damages that result from the use of its products in accordance with information provided by OMEGA, either verbal or written. OMEGA warrants only that the parts manufactured by the company will be as specified and free of defects. OMEGA MAKES NO OTHER WARRANTIES OR REPRESENTATIONS OF ANY KIND WHATSOEVER, EXPRESSED OR IMPLIED, EXCEPT THAT OF TITLE, AND ALL IMPLIED WARRANTIES INCLUDING ANY WARRANTY OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE HEREBY DISCLAIMED. LIMITATION OF LIABILITY: The remedies of purchaser set forth herein are exclusive, and the total liability of OMEGA with respect to this order, whether based on contract, warranty, negligence, indemnification, strict liability or otherwise, shall not exceed the purchase price of the component upon which liability is based. In no event shall OMEGA be liable for consequential, incidental or special damages.

CONDITIONS: Equipment sold by OMEGA is not intended to be used, nor shall it be used: (1) as a "Basic Component" under 10 CFR 21 (NRC), used in or with any nuclear installation or activity; or (2) in medical applications or used on humans. Should any Product(s) be used in or with any nuclear installation or activity, medical application, used on humans, or misused in any way, OMEGA assumes no responsibility as set forth in our basic WARRANTY/DISCLAIMER language, and, additionally, purchaser will indemnify OMEGA and hold OMEGA harmless from any liability or damage whatsoever arising out of the use of the Product(s) in such a manner.

RETURN REQUESTS/INQUIRIES

Direct all warranty and repair requests/inquiries to the OMEGA Customer Service Department. BEFORE RETURNING ANY PRODUCT(S) TO OMEGA, PURCHASER MUST OBTAIN AN AUTHORIZED RETURN (AR) NUMBER FROM OMEGA'S CUSTOMER SERVICE DEPARTMENT (IN ORDER TO AVOID PROCESSING DELAYS). The assigned AR number should then be marked on the outside of the return package and on any correspondence.

The purchaser is responsible for shipping charges, freight, insurance and proper packaging to prevent breakage in transit.

FOR **WARRANTY** RETURNS, please have the following information available BEFORE contacting OMEGA:

1. Purchase Order number under which the product was PURCHASED,
2. Model and serial number of the product under warranty, and
3. Repair instructions and/or specific problems relative to the product.

FOR **NON-WARRANTY** REPAIRS, consult OMEGA for current repair charges. Have the following information available BEFORE contacting OMEGA:

1. Purchase Order number to cover the COST of the repair,
2. Model and serial number of the product, and
3. Repair instructions and/or specific problems relative to the product.

OMEGA's policy is to make running changes, not model changes, whenever an improvement is possible. This affords our customers the latest in technology and engineering.

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