

PRG98A Series

Pressure Regulator





M5738/0119

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INSTALLATION

The PRG98A is a pressure regulator designed for pneumatic service only. The maximum supply pressure is 150 PSIG and the Output Pressure ranges are listed on Table 1. A filter (40 micron minimum) should be installed upstream of the PRG98A to prevent foreign material in the air line from affecting the performance of the regulator. The operating temperature range of the PRG98A is 0° to + 160° F (-18° to + 71°C).

The PRG98A has 1/16 -27 NPT "IN" and "OUT" ports located on the sides of the regulator body and on the bottom of the regulator body. Pipe plugs are included with the PRG98A to block the ports that will not be used in the installation. Pipe sealant should be used on the pipe plugs when they are installed in the ports that will not be used. Any contamination and debris should be removed from the supply line prior to installing the regulator in the system.

The words "IN" and "OUT" are stamped above the 1/16-27 NPT ports on the sides of the regulator body. Apply a small amount of pipe sealant to the male threads of the fittings that will be used and install the fittings into the regulator body. Be sure that the supply pressure line is connected to one of the two "IN" ports and that the output pressure line is connected to one of the two "OUT" ports. The unused ports are to be plugged. The regulator can be mounted in any position without affecting its operation.

There are two 10-32 UNF-2B ports on the sides of the regulator perpendicular to the "IN" and "OUT" ports. These ports, which are plugged at the factory, connect to the output pressure chamber of the regulator. Either of the plugs can be removed and either port can be connected to a pressure gauge to monitor the output pressure of the PRG98A.

OPERATION

Output pressure is controlled by the adjustment knob. Clockwise rotation of the knob increases the output pressure; counterclockwise rotation of the knob decreases the output pressure. Prior to initially pressurizing the system, the knob should be adjusted counterclockwise to remove any range spring compression. The supply pressure should be slowly turned on and the adjusting knob rotated clockwise until the desired output pressure is reached.

Relieving Type Regulators:

The standard PRG98A is a relieving regulator. As such, output pressure can be reduced even though the system is dead-ended. The PRG98A will also relieve in response to an increase in output pressure above the regulated setting, allowing air to escape to atmosphere through the vent hole in the PRG98A bonnet. The relief capacity of the PRG98A is limited and depending on the source of the overpressure condition, the output pressure may increase to a point much higher than the regulator setpoint. Thus the relief feature of the PRG98A must not be relied upon as an overpressure safet device.

MAINTENANCE

Maintenance can be performed on the PRG98A in the field. A repair kit must be obtained from Omega.

Shut off the supply pressure to the PRG98A and reduce the supply and output pressure lines to zero pressure. Rotate the knob counterclockwise until all range spring compression is removed. Using 5/64" Allen wrench, remove the four build screws securing the bonnet to the body. Remove the bonnet, the range spring, the spring guide and the diaphragm assembly. Using a small Phillips screwdriver, remove the two flat head Phillips screws attaching the seat guide in the body. Remove the seat guide as well as the pintle and valve spring.

Clean off the sealing area of the seat guide with isopropyl alcohol. Install the valve spring on the pintle. Place the pintle/spring into the body. Slide the seat guide into the body while lining up the assembly holes. The small Venturi hole in the seat guide should be located on the "OUT" port side of the regulator body. Install the two flat head Phillips screws and tighten these screws to 36 in-oz maximum. Place the diaphragm assembly on the body assembly and assemble the remaining components. Tighten the four build screws to 9 ± 1 in-lbs.

TABLE 1

PART NUMBER	OUTPUT PRESSURE RANGE
PRG98A-30	0-30 PSIG (0-2.1 BAR)
PRG98A-60	0-60 PSIG (0-4.1 BAR)
PRG98A-120	0-100 PSIG (0-6.9 BAR)





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The information contained in this document is believed to be correct, but OMEGA accepts no liability for any errors it contains, and reserves the right to alter specifications without notice.

WARNING: These products are not designed for use in, and should not be used for, human applications.

California Proposition 65 **WARNING:** Cancer and Reproductive Harm www.p65Warnings.ca.gov

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.

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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 <u>WARRANTY RETURNS</u>, 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.

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