

PRG352A and PRG354A Series Pressure Regulators



INSTRUCTION
SHEET

M5737/0119

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SPECIFICATIONS:

Fluid	: Compressed Gas
Pipe Size	: 1/4", 1/2"
Max. Inlet Pressure	: 425 PSIG (29.3 BAR)
Operating Temp. Range	: -4 to 176 °F (-20 to 80 °C)
Particle Removal	: 25 Micron Std.
Gauge Port	: 1/4" NPT
Vent Port	: 1/4" NPT

OPERATION:

Fluid entering the filter - regulator is guided into a swirling pattern by the louvre (A). Coarse solid particles and liquid are forced to the wall of the bowl (B). Air leaving the bowl passes through the filter element (C) where finer solid particles are removed and retained. Keep filter clean for best performance and minimum pressure drop. The filtered air enters the valve area of the unit.

The working elements of the regulator consist mainly of a flexible diaphragm (D) which controls a valve pin (E) and an adjusting spring (F) which is loaded by means of an adjusting screw (G).

The pressure side of the diaphragm is connected to the outlet port of the filter - regulator so that regulated pressure will be exerted against a diaphragm. When the adjusting Screw is retracted so that no load is applied to the adjusting spring, the valve (H) is closed.

As the adjusting Screw is turned in, it applies a load to the adjusting spring which is transmitted to the valve through the diaphragm and the valve pin thus opening the valve. As the regulated pressure increases, the pressure against the diaphragm increases forcing the diaphragm to compress the adjusting spring until the load exerted by the adjusting spring is equal to the load exerted by the regulated pressure. If there is no flow demand, this state of equilibrium will occur with the valve closed. If there is a flow demand, this state of equilibrium will occur with the valve open just the amount necessary to compensate for the demand, thus maintaining the desired regulated pressure.

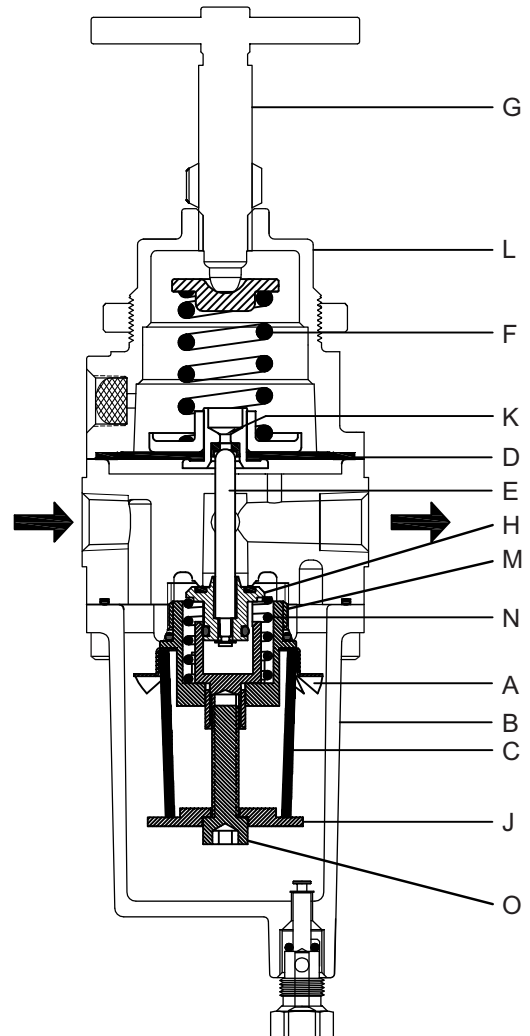
Excess build-up in secondary pressure is immediately relieved through relief hole (K). It is important to drain the manual drain type filter bowl regularly. The liquid level should never be permitted to rise above the baffle (J), or else liquid will carry over down-stream.

WARNING:

Do not use these products where pressures and temperatures are likely to be more than specified under technical data.

MAINTENANCE:

To remove the filter element (C), shut off and bleed down air pressure and remove the bowl. Unscrew the stud (O) and remove baffle (J) and the element (C). To disassemble the regulator side, turn the adjusting screw (G) counter clockwise to relieve compression on the spring (F). Remove bonnet (L) remove spring (F) and diaphragm assembly (D). Unscrew retainer assembly (M) to remove valve assembly (E) and valve spring (N). Clean and inspect each item carefully, replacing damaged parts. When reassembling, lightly smear seals and valve rubber with silicon grease. Assemble with filter regulator in vertical position.





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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.

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.

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