

UM91-HF
Rev 5
February 2006
Supersedes Rev 4

Model 91-HF Filter Regulator



INTRODUCTION

The Model 91-HF Filter Regulator removes impurities from an air supply and delivers an accurate output pressure.

SPECIFICATIONS

Port Size	(In, Out and Gauge) ¼" NPT
Output Range	0-120 psig (0-800 kPa)
Max Supply Pressure	150 psig (1034 kPa)
Mounting	Pipe or Through Body
Flow Capacity	22 SCFM (33.0 m ³ /hr) at 100 psig (700 kPa) supply with 20 psig (140 kPa) output
Exhaust Capacity	0.1 SCFM (0.17 m ³ /hr) with downstream pressure 5 psig (35 kPa) above set point
Sensitivity	1" (2.5 cm) of water
Air Consumption	Less than 5 SCFM (0.17 m ³ /hr)
Effect of Supply Pressure Variation	Less than 0.2 psig (1.4 kPa) for 25 psi (170 kPa) change
Ambient Temp Limits	0° to 160°F (-18° to 71°C)
Weight	1.6 lb (725 g)

MATERIALS OF CONSTRUCTION

Body	Diecast Aluminum Alloy, Irridite and Baked Epoxy Finish
Filter	3 Micron Phenolic Impregnated Cellulose
Diaphragm	Nitrile Elastomer and Nylon Fabric
Valve Seat Plug	Nitrile Elastomer
Additional Materials	Brass, Zinc Plated Steel, Acetal

INSTALLATION

Install the regulator as close as possible to the instrument or tool it is to service. For best filter drainage, orient the drain valve so that it is at the lowest point on the drip-well housing. The words "IN" and "OUT" are cast into the body to indicate the direction of flow.



As with any pneumatic device, excessive pressure will eventually cause one or more components to rupture. Such an event could cause death or serious injury. To avoid this possibility, the supply (IN) pressure must not exceed 150 psig.

IMPORTANT

The Model 91-HF filter regulator has low capacity internal relief, which provides very limited downstream over-pressure protection. To avoid exceeding the output pressure limits in service, a pressure relieving or pressure-limiting device should be provided.

This product is intended for use in industrial compressed-air systems only. Do not use this product where pressures and temperatures can exceed those listed under Specifications.

CAUTION



Use of process fluids other than instrument air is not recommended. No claim is made as to the suitability of this product for use with other process fluids, such as hazardous gases, except as listed on the appropriate certificate. Non-approved instruments are suitable for use with instrument air only. Optional features and modifications such as tapped exhaust do not imply suitability for use with hazardous gases except as listed on the approval certificate.

OPERATION

Prior to turning on supply air, back off the adjusting screw until there is no compression of the range spring. After turning the supply pressure on, turn the adjusting screw clockwise to increase outlet pressure.

MAINTENANCE

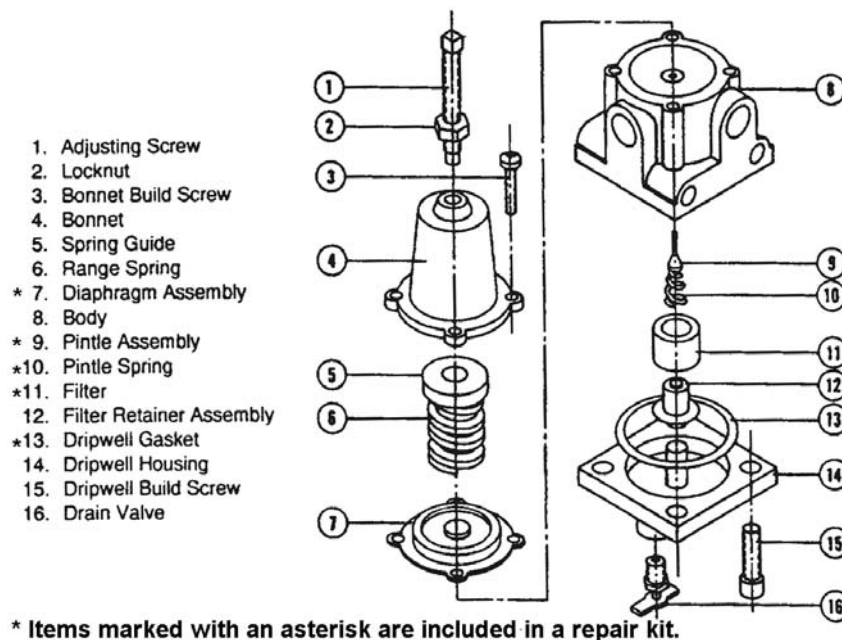
- 1) To remove the condensate, slowly open the drain valve and bleed the accumulated liquid.
- 2) To clean the filter element:
 - a. Shut off the supply air.



Components can be ejected with great force if the instrument is disassembled while pressure is applied. To avoid the risk of death or serious injury, always turn off and vent supply pressure and any downstream pressure source when disassembling the instrument.

- b. Drain the condensate.
 - c. Remove the four corner bolts from the bottom of the unit.
 - d. Remove the drip-well housing and filter.
 - e. Clean parts and reassemble in reverse order.
- 3) To install replacement parts:
- a. Order the kit as described in exploded illustration view below.
 - b. Shut off the supply air. Back out the adjusting screw.
 - c. Remove the four corner bolts from the bottom of the unit, and the four screws on the top. Remove all parts.
 - d. Replace all parts that show excessive wear.
 - e. Clean all parts and replace in the reverse order.

ASSEMBLY DRAWING



<u>Repair Kits:</u>	<u>Part Number:</u>
Spare Parts	10963-202
Filters (4)	10963-201

PRODUCT SUPPORT

This section provides the Internet site addresses, e-mail addresses, telephone numbers, and related information for customers to access Siemens product support.

When contacting Siemens for support:

- Please have complete product information at hand:
 - For hardware, this information is provided on the product nameplate (part number or model number, serial number, and/or version).
 - For most software, this information is given in the Help > About screen.
- If there is a problem with product operation:
 - Is the problem intermittent or repeatable? What symptoms have been observed?
 - What steps, configuration changes, loop modifications, etc. were performed before the problem occurred?
 - What status messages, error messages, or LED indications are displayed?
 - What troubleshooting steps have been performed?



- Is the installation environment (e.g. temperature, humidity) within the product’s specified operating parameters? For software, does the PC meet or exceed the minimum requirements (e.g. processor, memory, operating system)?
- A copy of the product Service Instruction, User’s Manual, or other technical literature should be at hand. The Siemens public Internet site (see the table) has current revisions of technical literature, in Portable Document Format, for downloading.
- To send an instrument to Siemens for repair, request a Return Material Authorization (RMA).

IMPORTANT

An instrument must be thoroughly cleaned (decontaminated) to remove any process materials, hazardous materials, or blood born pathogens prior to return for repair. Read and complete the Siemens RMA form(s).

Contact Information

United States of America	Telephone	+1 800 569 2132, option 2 for Siemens and Moore brand instruments
	Fax	+1 215 283 6358
	E-mail	PITechSupp@sea.siemens.com
	Hours of Operation	8 a.m. to 4:45 eastern time Monday – Friday (except holidays)
	Public Internet Site	http://www.sea.siemens.com/ia
	Repair Service	+1 215 646 7400 extension 3187

For contact information outside the U.S.A., visit the Siemens public Internet site (see the above table for the URL), locate “Customer Support Process Instrumentation,” and click on the Contact Tech Support link to access the Global Support link.

Current revisions of technical publications for Siemens instruments can be found at the Siemens public Internet site. The manuals are in Portable Document Format (PDF).

WARRANTY

(a) Seller warrants that on the date of shipment the goods are of the kind and quality described herein and are free of non-conformities in workmanship and material. This warranty does not apply to goods delivered by Seller but manufactured by others.

(b) Buyer's exclusive remedy for a non-conformity in any item of the goods shall be the repair or the replacement (at Seller's option) of the item and any affected part of the goods. Seller’s obligation to repair or replace shall be in effect for a period of one (1) year from initial operation of the goods but not more than eighteen (18) months from Seller’s shipment of the goods, provided Buyer has sent written notice within that period of time to Seller that the goods do not conform to the above warranty. Repaired and replacement parts shall be warranted for the remainder of the original period of notification set forth above, but in no event less than 12 months from repair or replacement. At its expense, Buyer shall remove and ship to Seller any such nonconforming items and shall reinstall the repaired or replaced parts. Buyer shall grant Seller access to the goods at all reasonable times in order for Seller to determine any nonconformity in the goods. Seller shall have the right of disposal of items replaced by it. If Seller is unable or unwilling to repair or replace, or if repair or replacement does not remedy the nonconformity, Seller and Buyer shall negotiate an equitable adjustment in the contract price, which may include a full refund of the contract price for the nonconforming goods.

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