



Type-300 Filter Regulator  
Type-310 NACE Filter Regulator  
Type-320 Filter

**INTRODUCTION**

The Type-300 Air Regulator is designed for air or gas service. Maximum allowable inlet pressure is 250 psi. Operating temperatures are 0 to 160°F. The Type-300 has low capacity internal relief which provides very limited down-stream over pressure protection. Note: Non-relieving version does not provide internal relief. To avoid exceeding outlet pressure limits in service, a pressure-relieving or pressure-limiting device should be provided

**SPECIFICATIONS**

	Type-300 Filter Regulator	Type-310 NACE Filter Regulator	Type-320 Filter
Port Size	In/Out/Gauge: 1/4" NPT		
Output Ranges	0-10 psig (0-0.7 BAR), 0-30 psig (0-2 BAR), 0-60 psig (0-4 BAR), 0-120 psig (0-8 BAR)	0-30 psig (0-2 BAR), 0-60 psig (0-4 BAR), 0-100 psig (0-7 BAR)	N/A
Maximum Supply Pressure	250 psig (17 BAR)		
Mounting	Pipe, panel, bracket or through body direct	Pipe or through body	Pipe, bracket or through body
Filter	40 micron (optional 5 micron)		
Flow Capacity	22 scfm (660 NI/min) at 100 psig (7 BAR) supply with 20 psig (1.4 BAR) output		30 scfm (849 NI/min) at 100 psig supply
Exhaust Capacity	0.1 scfm (3 NI/min) with downstream pressure 5 psig (0.3 BAR) above set point		N/A
Sensitivity	1" of water		N.A
Air Consumption	Less than 5 scfh (2.5 NI/min)		N/A
Effect of Supply Pressure Variation	Less than 0.2 psig (0.01 BAR) for 25 psig (1.7 BAR) change		N/A
Temperature Limits	0° to 160° F (-18° C to 71° C) Low Temperature: -62° to 194° F (-52° to 90° C)	-20° to 180° F (-29° C to 82° C) Low Temperature: -62° to 194° F (-52° to 90° C)	-20° to 180° F (-29° C to 82° C) Low Temperature: -62° to 194° F (-52° to 90° C)
Weight	1.6 lb (0.73 kg)		1.3 lb. (0.60 kg)
Cv Value	0.40		

**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 dripwell housing. The words "IN" and "OUT" are cast into the body to indicate the direction of flow.



**WARNING:** Only qualified personnel should install or service a regulator. Regulators should be installed, operated, and maintained in accordance with international and applicable codes and regulations, and ControlAir instructions. If the regulator vents fluid or a leak develops in the system, it indicates that service is required. Failure to take the regulator out of service immediately may create a hazardous condition. Personal injury, equipment damage, or leakage due to escaping fluid or bursting of pressure-containing parts may result if this regulator is over pressured or is installed where service conditions could exceed the limits given in the Specifications section, or where conditions exceed any rating of the adjacent piping or piping connections. To avoid such injury or damage, provide pressure-relieving or pressure-limiting devices (as required by the appropriate code, regulation, or standard) to prevent service conditions from exceeding limits. Additionally, physical damage to the regulator could result in personal injury and property damage due to escaping fluid. To avoid such injury and damage, install the regulator in a safe location. The internal relief valve in the Type-300 regulators does not provide full overpressure protection. The internal relief valve is designed for minor seat leakage only.

**OPERATION**

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



**WARNING:** To avoid personal injury resulting from sudden release of pressure, isolate the regulator from all pressure before attempting disassembly.

## MAINTENANCE

- 1) To remove condensate, slowly open drain valve and bleed accumulated liquid.
- 2) To clean filter element
  - a. Shut off supply air
  - b. Drain condensate
  - c. Remove four corner bolts from bottom of unit
  - d. Remove dripwell housing and filter
  - e. Clean parts and reassemble in reverse order

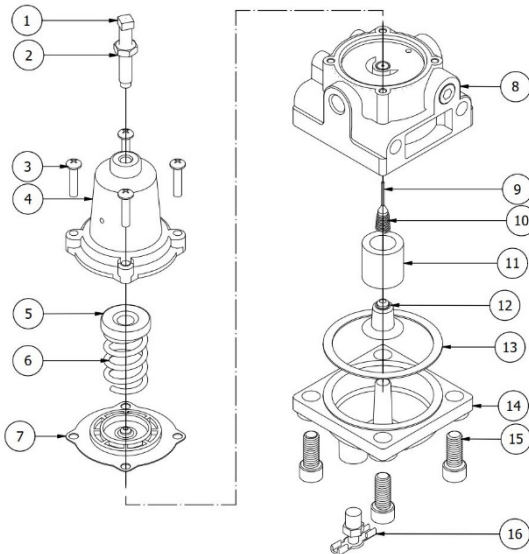


**WARNING:** To avoid personal injury, property damage, or equipment damage caused by sudden release of pressure or explosion of accumulated gas, do not attempt any maintenance or disassembly without first isolating the regulator from system pressure and relieving all internal pressure from the regulator.

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



**WARNING:** The materials of the Type-300 are compatible with natural gas. The user should be warned, however, that the Type-300 regulator may vent some gas to the atmosphere. In hazardous or flammable service, vented gas may accumulate and cause personal injury, death, or property damage due to fire or explosion. If regulator is used in a hazardous gas service area, the regulator must be vented to a remote, safe location away from air intakes or any other hazardous area. The vent line or stack opening must be protected against condensation or clogging. Do not use these products where pressure and temperatures can exceed those listed under specifications.



All items marked with an asterisk (\*) will be included in the repair kit. Other parts may be ordered separately by specifying the item number, part name, and the part number of the regulator for which the parts are intended.

Parts List	
ITEM	DESCRIPTION
1	Sq. Hd. Adjusting Screw
2	Nut, Lock
3	Bonnet Build Screw
4	Bonnet
5	Guide, Spring
6	Spring, Range
7	*Diaphragm Assembly
8	Body
9	*Pintle Assembly
10	*Spring, Pintle
11	*Filter
12	Filter Retainer Assembly
13	*Dripwell Gasket
14	Dripwell Housing
15	Dripwell Build Screw
16	Drain Valve

## LIMITED WARRANTY & DISCLAIMER

ControlAir LLC products are warranted to be free from defects in materials and workmanship for a period of eighteen months from the date of manufacture, provided said products are used according to ControlAir LLC recommended usages. ControlAir LLC's liability is limited to repair of, refund of purchase price paid for, or replacement in kind of, at ControlAir LLC's sole option, any products proved defective. ControlAir LLC reserves the right to discontinue manufacture of any product or change product materials, design or specifications without notice. Note: ControlAir does not assume responsibility for the selection, use, or maintenance of any product. Responsibility for the proper selection, use, and maintenance of any ControlAir product remains solely with the purchaser and end user.

Repair Kits:	Part No.
T300: 0-30, 0-60, 0-120	449-871-017
T300 5 micron filter: 0-30, 0-60, 0-120	449-871-108
T300 Non-Relieving: 0-10, 0-30, 0-60, 0-120	449-871-035
T300 Non-Relieving: Low-Temp; 0-10, 0-30, 0-60, 0-120	449-871-126
T310: 0-30, 0-60, 0-100	449-871-131