



Installation, Operation and Maintenance Instructions

Type CG330 Filter Regulator Type CG340 Regulator

INTRODUCTION

The Type CG330/CG340 Instrument Air, Compressed Gas Filter Regulator and Regulator are ideal for low emission applications that must comply with strict fugitive emissions regulations. Maximum allowable inlet pressure is 250 psi (17 BAR). Operating temperatures are 0 to 160°F. The Type CG330/CG340 has low capacity internal relief which provides very limited down stream over pressure protection.

SPECIFICATIONS

| | TYPE CG330 | | TYPE CG340 | |
|---|---|---|--|---|
| | 1/4" NPT | 1/2" NPT | 1/4" NPT | 1/2" NPT |
| In/Out Port Size (Gauge Ports 1/4" NPT) | | | | |
| Output Ranges | 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), 0-120 psig (0-8 bar) | |
| Maximum Supply Pressure | Manual Drain: 250 psig (17 bar) Auto Drain: 150 psig (10 bar) | | 250 psig (17 bar) | |
| Mounting | Pipe, bracket or through body direct | | | |
| Filter | 40 micron (optional 5 micron) | | None | |
| Cv Values | 0.5 at 150 psig supply and 80 psig setpoint | 2.5 at 150 psig supply and 80 psig setpoint | 0.5 at 150 psig supply and 80 psig setpoint | 2.5 at 150 psig supply and 80 psig setpoint |
| Exhaust Capacity | 0.1 scfm (3 NI/min) with downstream pressure 5 psig (0.3 bar) above set point | | | |
| Sensitivity | 1" of water | | | |
| Air Consumption | Less than 0.1 scfh (0.05 NI/min) | | | |
| Effect of Supply Pressure Variation | Less than 0.25 psig (0.017 bar) for 25 psig (1.7 bar) change | Less than 0.5 psig (0.035 bar) for 25 psig (1.7 bar) change | Less than 0.25 psig (0.017 bar) for 25 psig (1.7 bar) change | Less than 0.5 psig (0.035 bar) for 25 psig (1.7 bar) change |
| Temperature Limits | Manual drain: 0° to 160° F (-18° to 71° C) Auto drain: 32° to 160° F (0° to 71° C) | | 0° to 160° F (-18° to 71° C) | |
| Weight | Manual drain: 1.2 lb (0.54 kg) Auto drain: 1.42 lb (0.64kg) | 1.71 lb (0.78kg) 1.65 lb (0.75 kg) | 1.15 lb (0.52 kg) N/A | 1.38 lb (.63 kg) N/A |
| Operating Media | Air, Inert Gas & Sweet Natural Gas | | Air, Inert Gas & Sweet Natural Gas | |

MATERIALS

| | | |
|-----------------------------|---|------------------------------------|
| Body | Diecast Aluminum Alloy, Chromate and Baked Epoxy Finish | |
| Filter | Polyethylene | None |
| Diaphragm | Nitrile Elastomer and Nylon Fabric | Nitrile Elastomer and Nylon Fabric |
| Valve Seat | Nitrile Elastomer | Nitrile Elastomer |
| Additional Materials | Brass, Zinc Plated Steel, Acetal | Brass, Zinc Plated Steel, Acetal |

INSTALLATION

1. Install the regulator/filter as close as possible to the instrument or tool it is to service.
2. Clean all pipelines to remove dirt and scale prior to installation.
3. Install the regulator/filter so that the direction of flow is from the "IN" to "OUT" connection as marked on the body of the regulator/filter.
4. For best drainage, orient the drain valve so that it is at the lowest point on the drip well housing. Positioning of the drain valve may be improved by rotating the drip well with respect to the body.
5. The exhaust port should be kept free and unplugged. Rotating the bonnet relative to the body may change the vent hole orientation.

6. Exhaust may be remotely vented by installing tubing to the 1/4" NPT port. (E Option)
7. Apply pipe compound or sealing tape to the main pipe threads prior to installing regulator/filter. Use caution to prevent the sealant from getting inside the regulator/filter.



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 CG330 regulators does not provide full overpressure protection. The internal relief valve is designed for minor seat leakage only.

OPERATION

1. Prior to turning on supply air, back off adjusting screw until there is no compression of the range spring.
2. After applying the air supply, outlet pressure will be increased by rotating the adjustment screw clockwise. Pressure can be decreased by turning counter clockwise.
3. Tighten locknut to maintain desired pressure setting.



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, from the Type CG330, slowly open drain valve by turning clockwise and bleed accumulated liquid.



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.

2. To clean filter element (Type CG330)
 - a) Shut off supply pressure and relieve all internal pressure.
 - b) Drain condensate from drip well.
 - c) Remove four corner bolts from bottom of unit and remove drip well housing.
 - d) Remove filter retaining screw.
 - e) Remove filter retainer, filter o-ring seals and filter.
 - f) Clean parts and reassemble in reverse order.
3. To clean/replace pintle assembly
 - a) Follow steps (a) through (d) above.
 - b) Unscrew collar and remove. (1/2" NPT only)
 - c) Remove pintle spring. The Type CG340 does not contain a filter or collar. The pintle and pintle spring will be accessible upon removal of base.
 - d) Clean or replace parts as required. Apply a high quality lubricant to all cleaned or replaced o-ring seals.
 - e) Reassemble in reverse order.
4. To clean/replace diaphragm assembly
 - a) Back out the adjusting screw until the spring is no longer compressed.
 - b) Remove the four bonnet screws and separate the bonnet from the body of the regulator. Remove the spring guide and spring.
 - c) Remove the diaphragm assembly, clean or replace it as necessary and reassemble in reverse order. After placing the diaphragm assembly on the body, push down the assembly to make sure that the pintle is seated properly and strokes smoothly.
5. Repair kits/replacement parts
 - a) Repair kits include all parts marked with an asterisk (*).
 - b) Order kit as described in exploded view below



WARNING: The materials of the Type CG330/CG340 are compatible with natural gas. The user should be warned, however, that the Type CG330/CG340 regulator/filter 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.

REPAIR KITS

| Model | Porting | Part Number |
|------------|----------|-------------|
| Type CG330 | 1/4" NPT | 449-871-239 |
| Type CG330 | 1/2" NPT | 449-871-240 |

| Model | Porting | Part Number |
|------------|----------|-------------|
| Type CG340 | 1/4" NPT | 449-871-241 |
| Type CG340 | 1/2" NPT | 449-871-242 |

REPLACEMENT FILTERS

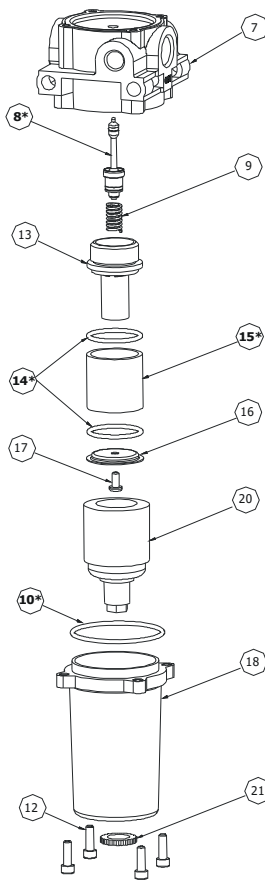
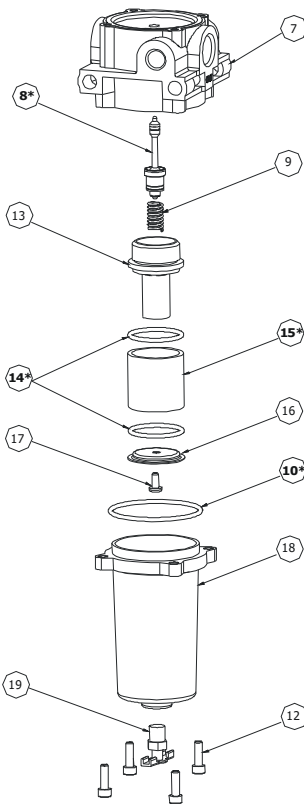
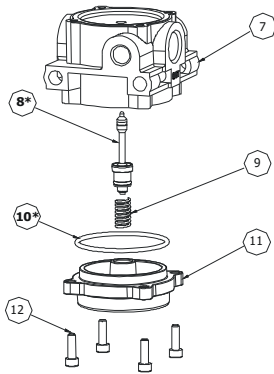
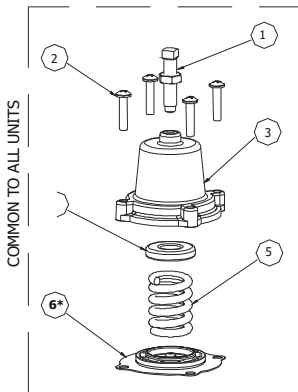
| Model | Porting | Description | Part Number |
|------------|----------|-------------|-------------|
| Type CG330 | 1/4" NPT | 40 micron | 446-777-001 |
| Type CG330 | 1/4" NPT | 5 micron | 446-777-002 |
| Type CG330 | 1/2" NPT | 40 micron | 446-777-024 |
| Type CG330 | 1/2" NPT | 5 micron | 446-777-025 |

Type CG330/CG340 1/2" NPT Units

CG340 1/2" NPT

CG330 1/2" NPT

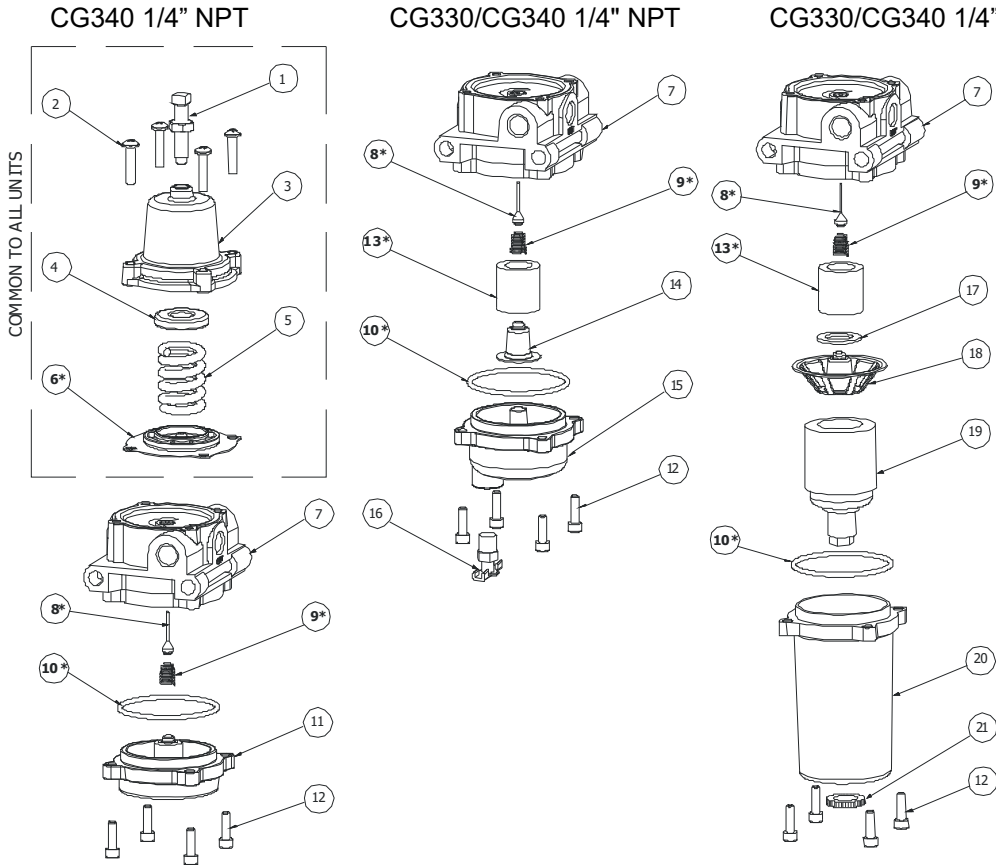
CG330 1/2" NPT A.D.



| Parts List | | |
|------------|-----|----------------------|
| ITEM | QTY | DESCRIPTION |
| 1 | 1 | ADJUSTING SCREW ASSY |
| 2 | 4 | 10-24 BUILD SCREW |
| 3 | 1 | BONNET |
| 4 | 1 | SPRING GUIDE |
| 5 | 1 | RANGE SPRING |
| 6 | 1 | DIAPHRAGM ASS'Y |
| 7 | 1 | BODY |
| 8 | 1 | VALVE ASS'Y |
| 9 | 1 | VALVE SPRING |
| 10 | 1 | O-RING |
| 11 | 1 | BASE ASS'Y |
| 12 | 4 | 10-24 DRIPWELL SCREW |
| 13 | 1 | COLLAR |
| 14 | 2 | SEAL, FILTER |
| 15 | 1 | FILTER |
| 16 | 1 | FILTER RETAINER |
| 17 | 1 | SCREW, RETAINER |
| 18 | 1 | DRIPWELL |
| 19 | 1 | DRAIN VALVE |
| 20 | 1 | AUTODRAIN VALVE |
| 21 | 1 | NUT, AUTODRAIN VALVE |

* INCLUDED IN REPAIR KIT

Type CG330/CG340 1/4" NPT Units



| Parts List | | |
|------------|-----|-----------------------|
| ITEM | QTY | DESCRIPTION |
| 1 | 1 | ADJUSTING SCREW ASS'Y |
| 2 | 4 | 10-24 BUILD SCREW |
| 3 | 1 | BONNET |
| 4 | 1 | SPRING GUIDE |
| 5 | 1 | RANGE SPRING |
| 6 | 1 | DIAPHRAGM ASS'Y |
| 7 | 1 | BODY |
| 8 | 1 | PINTLE |
| 9 | 1 | PINTLE SPRING |
| 10 | 1 | O-RING |
| 11 | 1 | BASE ASSY |
| 12 | 4 | 10-24 DRIPWELL SCREW |
| 13 | 1 | FILTER |
| 14 | 1 | FILTER RETAINER |
| 15 | 1 | DRIPWELL |
| 16 | 1 | DRAIN VALVE |
| 17 | 1 | GASKET |
| 18 | 1 | FILTER RETAINER |
| 19 | 1 | AUTODRAIN VALVE |
| 20 | 1 | DRIPWELL A.D. |
| 21 | 1 | NUT, AUTODRAIN VALVE |

* INCLUDED IN REPAIR KIT

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.