Type 330/340 Series

Instrument Air Filter Regulator and Regulator

Field rugged airsets and regulators

The Type 330/340 Series of Instrument Air Filter Regulators and Regulators are designed to provide clean, accurate air pressure to instruments, valves, and other automatic control equipment in a lightweight, compact housing. These quality instruments are constructed of durable materials that will provide long lasting performance in industrial environments.

Type-330 Filter Regulator

Designed for use in systems that require clean, accurate instrument air, the Type-330 provides pressure regulation and filtration in an integral compact package. Available in ¼" NPT porting for normal operation and ½" NPT porting for high flow capacity requirements.

Type-330 Filter Regulator with Automatic Drain

Condensate waste liquid is automatically flushed out when a change in air flow occurs or when the supply pressure is reduced. The low maintenance Automatic Drain helps prolong the life of the regulator and filter by preventing corrosion on the bottom of regulator and reducing the load of the filter.

Type-340 Regulator

Designed to provide accurate, constant control under variable flow rates and supply pressures. Compact and lightweight housing allows this unit to be mounted in applications where space is limited. Its durable construction withstands long term installation in harsh environments.

FEATURES

Compact and Light Weight Construction
Mounts where competitive units won't

¼" NPT and ½" NPT Ported Versions

Automatic Drain Option

High Flow Capacity

Direct, Pipe or Bracket Mounting
Compatible for field replacements of other brands

Low Air Consumption
Lower operating costs

Tapped Exhaust Option

Rugged, Corrosion Resistant Design
Functional for harsh conditions

ControlAir Inc.

Type 330/340 Series

Rugged and reliable instrument air filtration and regulation

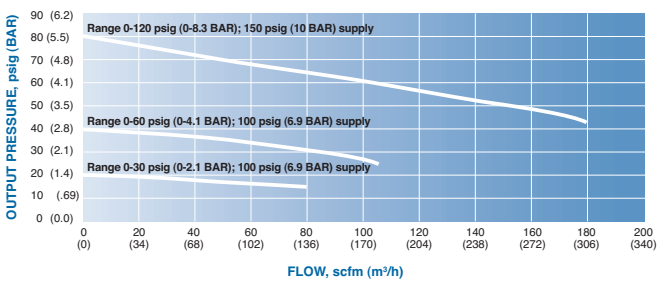
S P E C I F I C A T I O N S

	TYPE 330		TYPE 340	
In/Out Port Size (Gauge Ports 1/4 NPT)	1/4" NPT	1/2" NPT	1/4" NPT	1/2" NPT
Output Ranges	0-30 psig (0-2BAR) 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)			
Mounting	Pipe, bracket or through body direct			
Filter	40 micron (5 optional)		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 (2.83 Nl/min) with downstream pressure 5 psig (0.3 BAR) above set point			
Sensitivity	1" of water			
Air Consumption	Less than 5 scfh (2.5 Nl/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 (.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° C to 71° C) Auto drain: 32° to 160° F (0° C to 71° C)			
Weight	1.2 lbs (.45 kg)	1.71 lbs (0.64 kg)	1.15 lbs (0.43 kg)	1.38 lbs (0.52 kg)
Operating Media	Air, Inert Gas and Sweet Natural Gas			

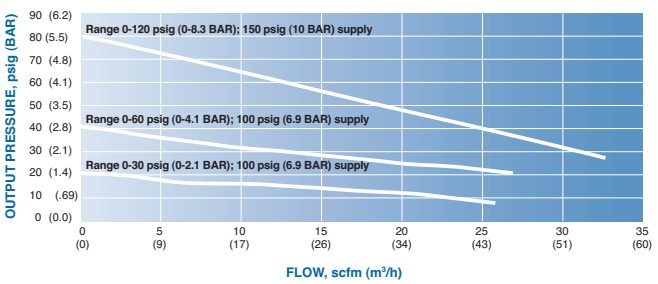
M A T E R I A L S

Body	Diecast Aluminum Alloy, Irridite and Baked Epoxy Finish		
Filter	Phenolic Impregnated Cellulose	Polyethylene	None
Diaphragm	Nitrile Elastomer and Nylon Fabric		
Valve Seat	Nitrile Elastomer		
Additional Materials	Brass, Zinc Plated Steel, Acetal		

FLOW CURVES
Type 330/340: 1/2" NPT Units

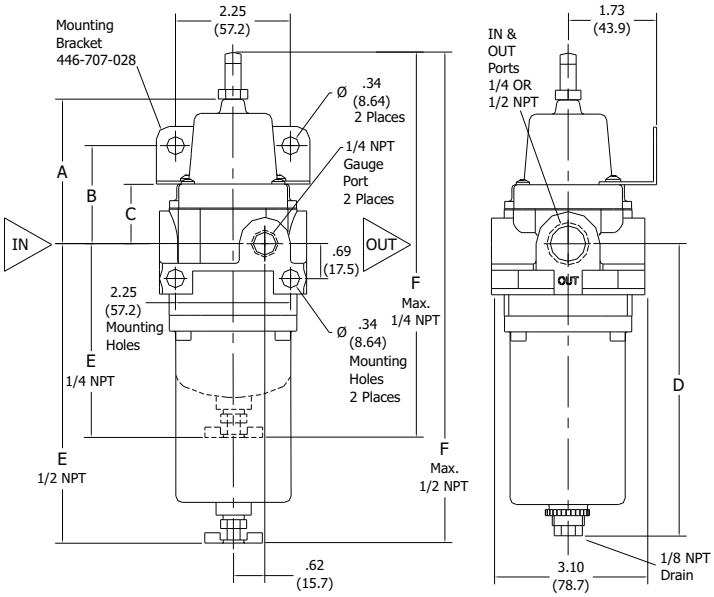


FLOW CURVES
Type 330/340: 1/4" NPT Units

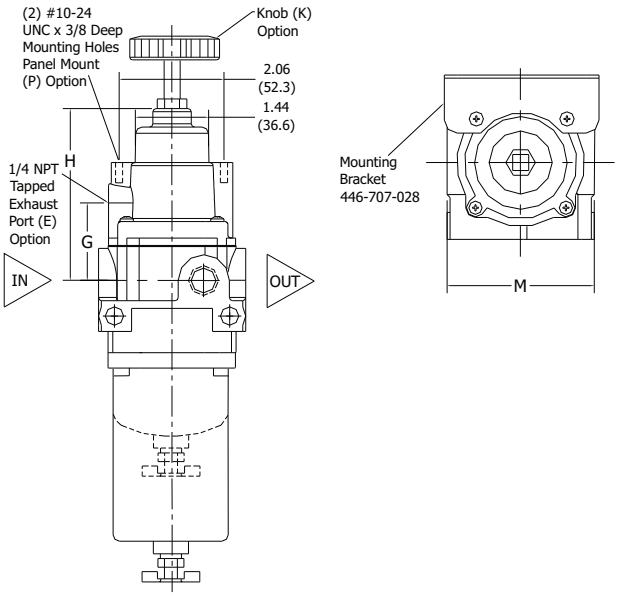


Type 330/340 Series Dimensions

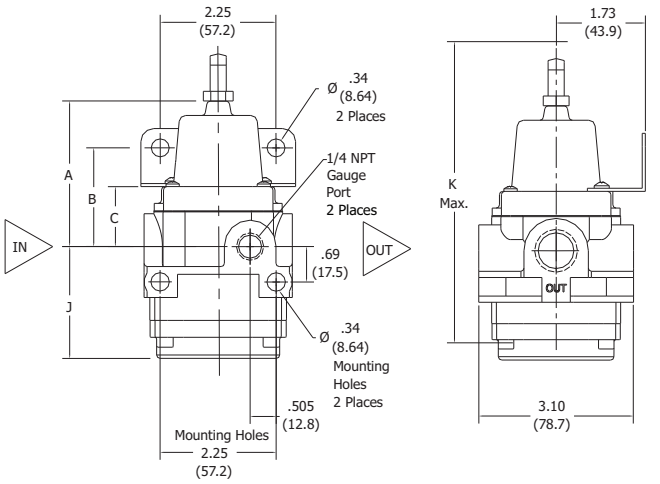
TYPE 330 DIMENSIONS



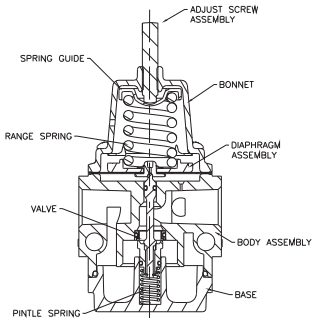
STANDARD AUTO DRAIN (A)



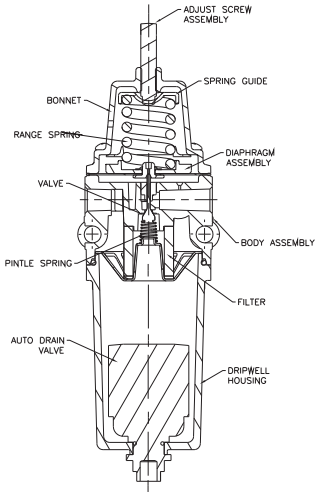
TYPE 340 DIMENSIONS



SECTIONAL DRAWINGS



TYPE 340 - 1/2" NPT



TYPE 330 - 1/4" NPT
WITH AUTO DRAIN OPTION

Port Size (NPT)	A		B		C		D		E		F		G		H		J		K		M	
	Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm
1/4"	2.66	67.6	1.76	44.7	1.00	25.4	5.74	145.8	3.42	86.8	7.15	181.6	1.22	31.0	3.19	81.0	2.05	52.0	5.60	137.2	2.56	65.0
1/2"	2.83	71.9	1.93	49.0	1.17	29.7	5.84	148.3	6.05	153.7	9.78	248.4	1.39	35.3	3.36	85.3	2.15	54.6	5.77	146.6	2.88	73.2

Type 330/340 Series Ordering

Use this coding system to order

330 - [ ] [ ] [B] [ ]

NPT
B 1/4"
D 1/2"

Gauge Ports (2)

Range
A 0-30 psig (0-2 BAR)
B 0-60 psig (0-4 BAR)
C 0-120 psig (0-8 BAR)

Options (see descriptions)
A Autodrain
E Tapped Exhaust
F 5 Micron Filter
K Knob
N Non-Relieving
P Panel Mount
X ATEX

340 - [ ] [ ] [ ]

NPT
B 1/4"
D 1/2"

Range
A 0-30 psig (0-2 BAR)
B 0-60 psig (0-4 BAR)
C 0-120 psig (0-8 BAR)

Options
E Tapped Exhaust
K Knob
N Non-Relieving
P Panel Mount
X ATEX

Options Add proper letter at end of model number.

A - Automatic Drain (Type 330 only): Float operated drain with 1/8" NPT connection. Maximum 150 psig supply pressure

E - Tapped Exhaust: Allows captured exhaust. 1/4" NPT

F - 5 Micron Filter: Standard 40 micron filter is replaced with 5 micron filter for more complete air filtration (available for Type-330 only)

K - Knob: Hand wheel to replace square head adjust screw

N - Nonrelieving: For constant flow or downstream pressure relief applications

X - ATEX 94/9/EC

Accessories

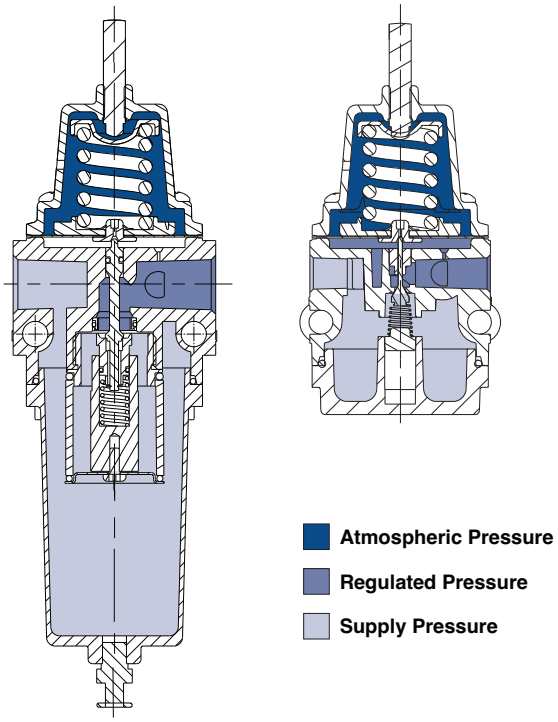
Mounting Bracket: P/N 446-707-028

Gauges: 1/4" NPT back-mount, 2" face, Dual Scale

0-15 psi (0-1 BAR)	P/N 446-725-003
0-30 psi (0-2 BAR)	P/N 446-725-004
0-60 psi (0-4 BAR)	P/N 446-725-001
0-160 psi (0-10 BAR)	P/N 446-725-002

PRINCIPLES OF OPERATION - TYPE 330 AND TYPE 340

Turning the adjusting screw changes the force exerted by the range spring on the diaphragm assembly. In equilibrium of set pressure, the force exerted by the range spring is balanced by the force from the output pressure acting underneath the diaphragm assembly. An unbalanced state between the output pressure and the set pressure causes a corresponding reaction in the diaphragm and supply valve assemblies. If the output pressure rises above the set pressure, an upward force is exerted on the diaphragm assembly causing the relief seat to lift and open. Excess pressure is vented to atmosphere until equilibrium is reached. If the output pressure drops below the set pressure the unbalanced force of the range spring causes a downward force on the diaphragm assembly. The supply valve then opens until the pressure builds up once more to the equilibrium condition. Under forward flow conditions, the range spring force is balanced by the diaphragm pressure force, with the supply valve open just enough to maintain the required equilibrium pressure. When high flow occurs, a specially designed aspirator helps maintain downstream pressure and compensates for droop.



Warranty

ControlAir, Inc. products are warranted to be free from defects in materials and workmanship for a period of eighteen months from the date of sale, provided said products are used according to ControlAir, Inc. recommended usages. ControlAir, Inc.'s liability is limited to the repair, purchase price refund, or replacement in kind, at ControlAir, Inc.'s sole option, of any products proved defective. ControlAir, Inc. reserves the right to discontinue manufacture of any products or change products materials, designs 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.

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RoHS Compliant

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QUALITY SYSTEM FM Approvals REGISTRATION ISO-9001:2008