Specialty Regulators

Specialty regulators for air or water, tube connection, factory preset pressure, large diaphragm, high relief flow, and field adjustable pressure limits, 1/8" to 1-1/4".

Contents

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R06

Miniature Brass Body Regulator
Water and Compressed Air Service
1/8″ and 1/4″ PTF Port Sizes

- **Compact design, corrosion resistant construction**
- **Brass body with choice of plastic or brass bonnet**
- **Plastic bonnet equipped with low torque, non-rising pressure adjusting knob. Snap action knob locks pressure setting when pushed in**
- **Brass bonnet equipped with pressure adjusting screw**
- **Non-relieving models for air and water service**
- **Relieving models for air service allow reduction of outlet pressure even when the system is dead-ended**
- **Can be disassembled without the use of tools or removal from the air or water line**

Ordering Information. Models listed include PTF threads, plastic bonnet with knob adjustment, non-relieving diaphragm, 5 to 100 psig (0.3 to 7 bar) outlet pressure adjustment range†, and without gauge.

Port	Model	Flow* scfm (dm^3/s)	Flow** gpm (lpm)	Weight lb (kg)
1/8" PTF	R06-121-NNKA	12 (5.7)	1.3 (4.9)	0.2 (0.09)
1/4" PTF	R06-221-NNKA	12 (5.7)	1.3 (4.9)	0.2 (0.09)

* Approximate flow with 100 psig (7 bar) inlet pressure, 90 psig (6.3 bar) set pressure and a 15 psig (1 bar) droop from set.
** Approximate flow with100 psig (7 bar) inlet pressure, 60 psig (4 bar) set pressure and a 15 psig (1 bar) droop from set.

Alternative Models

R 0 6 - ★ ★ ★ - ★ ★ ★ ★

Port Size	Substitute
1/8″	1
1/4"	2

Bonnet	Substitute
Plastic	21
Brass	22

Diaphragm	Substitute
Relieving	R
Non relieving	N

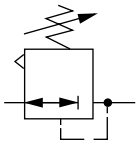
Threads	Substitute
PTF	A

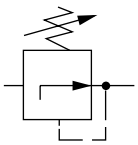
Outlet Pressure Adjustment Range†	Substitute
1 to 10 psig (0.1 to 0.7 bar)	A
5 to 50 psig (0.3 to 3.5 bar)	E
5 to 100 psig (0.3 to 7 bar)	K

Gauges	Substitute
With	G
Without	N

† Outlet pressure can be adjusted to pressures in excess of, and less than, those specified. Do not use these units to control pressures outside of the specified ranges.

ISO Symbols


Relieving


Non relieving

See Section ALE-25 for Accessories

Technical Data

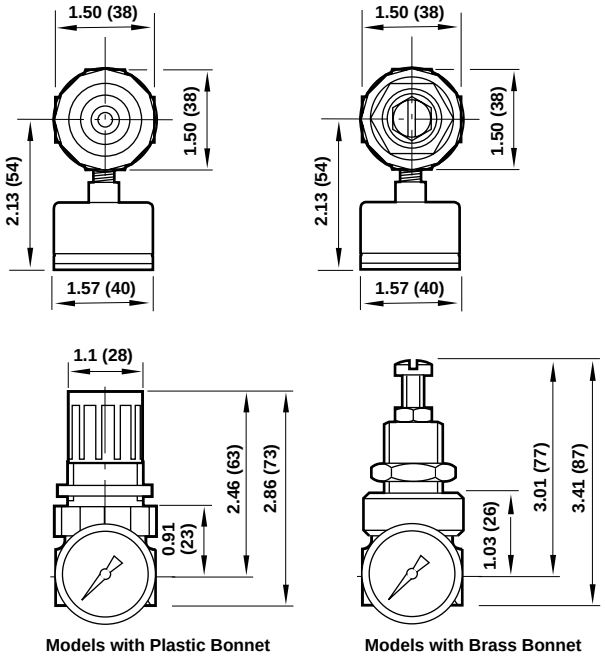
Fluid: Water and compressed air
Maximum pressure: 400 psig (27 bar)
Operating temperature
Water service: 35° to 150°F (2° to 65°C)
Air service: -30° to 150°F (-34° to 65°C) *

* Air supply must be dry enough to avoid ice formation at temperatures below 35°F (2°C).

Typical flow for water service at 100 psig (7 bar) inlet pressure, 60 psig (4 bar) set pressure and a droop of 15 psig (1 bar) from set: 1.3 gpm (4.9 lpm)
Typical flow for compressed air service at 100 psig (7 bar) inlet pressure, 90 psig (6.3 bar) set pressure and a droop of 15 psig (1 bar) from set: 12 scfm (5.7 dm^3/s)
Gauge ports: 1/8" PTF
Materials
Body: Brass
Bonnet
Standard: Acetal resin
Optional: Brass
Valve: Brass/nitrile
Valve seat: Acetal resin
Elastomers: Nitrile

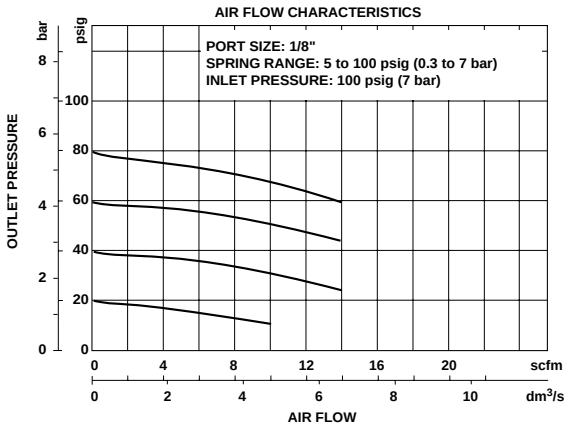
All Dimensions in Inches (mm)

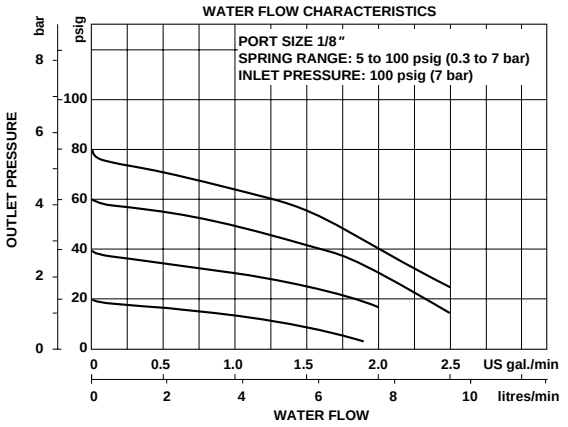
Panel mounting hole diameter:
Models with plastic bonnet: 1.19″ (30 mm)
Models with brass bonnet: 0.81" (21mm)
Maximum panel thickness: 0.25″ (6 mm)



Models with Plastic Bonnet | Models with Brass Bonnet

Typical Performance Characteristics





Service Kits

Item	Type	Part number
Service kit	Relieving	3407-18
	Non relieving	3407-17

Service kit includes slip ring, diaphragm, standard valve seat with o-ring, valve, valve spring.

11-044

Water and Compressed Air Service
Pressure Regulator 1/4″ Tube Connection

- **Non-relieving models.**
- **Acetal plastic, corrosion resistant construction**
- **Low torque, non-rising adjusting knob.**
- **Snap action knob locks pressure setting when pushed down.**
- **Designed for use with deionized water and potable water systems. Plastics and metals in contact with fluid are approved by the National Sanitation Foundation (NSF) for use in potable water systems. Elastomers are food grade.**
- **Can be disassembled without the use of tools or removal from the air or water line.**

Ordering Information. Models listed include non-relieving diaphragm, and 5 to 100 psig (0.3 to 7 bar) outlet pressure adjustment range †.

Port Connection	Model	Flow* scfm (dm^3/s)	Flow** U.S. gpm (lpm)	Weight lb (kg)
1/4" tube nut and ferrule	11-044-003	3.0 (1.4)	0.7 (2.65)	0.16 (0.08)

Alternative Models

1 1 - 0 4 4 - ★ ★ ★

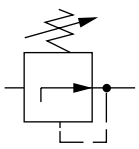
Outlet Pressure Adjustment Range†	Substitute
1 to 10 psig (0.1 to 0.7 bar)	001
2 to 50 psig (0.3 to 3.5 bar)	002
5 to 100 psig (0.3 to 7 bar)	003

* Approximate flow with 100 psig (7 bar) inlet pressure, 90 psig (6.3 bar) set pressure and a 15 psig (1 bar) droop from set.

** Approximate flow with 100 psig (7 bar) inlet pressure, 60 psig (4 bar) set pressure and a 15 psig (1 bar) droop from set.

† Outlet pressure can be adjusted to pressures in excess of, and less than, those specified. Do not use these units to control pressures outside of the specified ranges.

ISO Symbols



Non relieving

See Section ALE-25 for Accessories

Technical Data

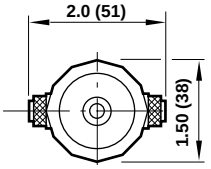
Fluid: Water and compressed air
Maximum pressure: 250 psig (17 bar)
Operating temperature:
Water service: 35° to 150°F (2° to 66°C)
Air service: -30° to 150°F (-34° to 66°C) *

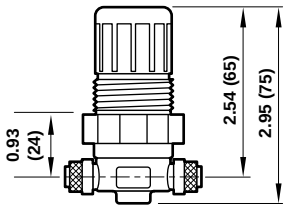
* When used in air service, air supply must be dry enough to avoid ice formation at temperatures below 35°F (2°C).

Port connections: 1/4" OD tube (brass nut and plastic ferrule supplied)
Recommended tubing: 1/4" soft PVC or Polyethylene tubing. Avoid aluminum, copper, and hard plastic tubing.
Typical flow:
Compressed air service at 100 psig (7 bar) inlet pressure, 90 psig (6.3 bar) set pressure and a droop of 15 psig (1 bar) from set: 3.0 scfm (1.4 dm^3/s)
Water service at 100 psig (7 bar) inlet pressure, 60 psig (4 bar) set pressure and a droop of 15 psig (1 bar) from set:
0.7 U.S. gpm (2.65 liters per minute)
No gauge ports
Materials
Body: Acetal
Bonnet: Acetal
Valve: Stainless steel with EPDM seal (NSF approved)
Valve seat: Acetal
Diaphragm: Stainless steel and nitrile (NSF approved)

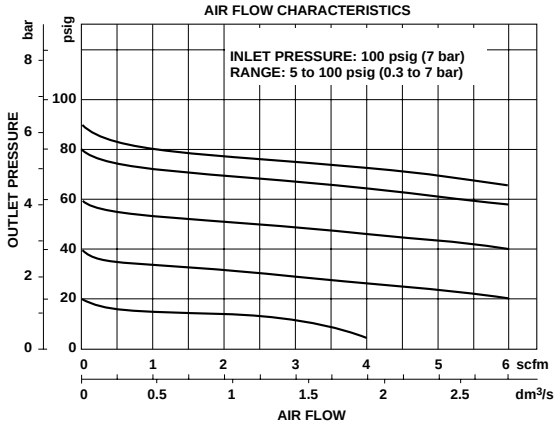
All Dimensions in Inches (mm)

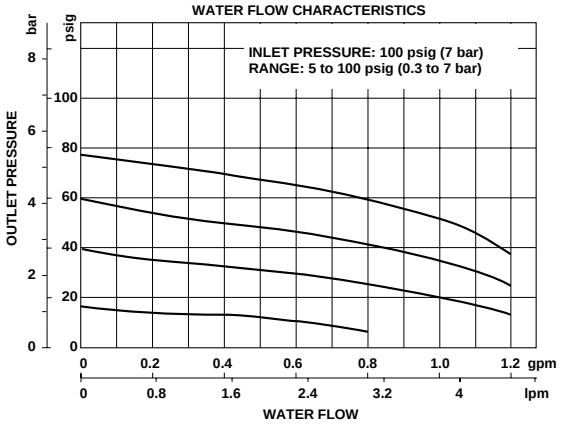
Panel mounting hole diameter: 1.19″ (30 mm)
Maximum panel thickness: 0.25″ (6 mm)





Typical Performance Characteristics





Service Kits

Type	Part number
Non-relieving	3407-59

Service kit includes slip ring, valve seat, valve, valve spring, and diaphragm.

R91

Water or Compressed Air Pressure Regulator 1/4" Port Size

- **Bonnet and body made from acetal plastic.**
- **R91W designed for use with deionized water and potable water systems. Plastics and metals in contact with fluid are approved by the National Sanitation Foundation (NSF) or the Food And Drug Administration (FDA) for use in potable water systems. Elastomers are food grade. Non relieving models only.**
- **R91G designed for use with non-potable water and compressed air systems. Non relieving and relieving models.**
- **Low torque, non-rising adjusting knob.**
- **Snap action knob locks pressure setting when pushed down.**
- **Can be disassembled without the use of tools or removal from the air or water line.**

Ordering Information. Models listed include PTF threads, knob adjustment, non relieving diaphragm, 5 to 125 psig (0.3 to 8.6 bar) outlet pressure adjustment range†, and without gauge.

Inlet Port	Application	Model	Flow* scfm (dm³/s)	Flow** gpm (lpm)	Weight lb (kg)
1/4"	Industrial air and non-potable water	R91G-2AK-NLN	24 (11)	1.75 (6.6)	0.15 (0.07)
1/4"	Potable water and deionized water	R91W-2AK-NLN	24 (11)	1.75 (6.6)	0.15 (0.07)

Alternative Models

R 9 1 ★ - ★ ★ ★ - ★ ★ ★

Application	Substitute
Industrial air, non-potable water	G
Potable water, deionized water	W

Port Size	Substitute
1/4"	2

Threads	Substitute
PTF	A
ISO Rc taper	B
ISO G parallel	G

Adjustment	Substitute
Knob	K

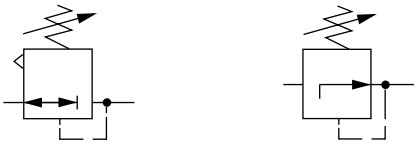
Gauge	Substitute
With	G ††
Without	N

Outlet Pressure Adjustment Range†	Substitute
5 to 50 psig (0.3 to 3.5 bar)	E
5 to 125 psig (0.3 to 8.6 bar)	L

Diaphragm	Substitute
Non relieving	N
Relieving ¶	R

* Approximate flow with 150 psig (10 bar) inlet pressure, 90 psig (6.3 bar) set pressure and a 15 psig (1 bar) droop from set.
** Approximate flow with 100 psig (7 bar) inlet pressure, 60 psig (4 bar) set pressure and a 15 psig (1 bar) droop from set.
† Outlet pressure can be adjusted to pressures in excess of, and less than, those specified. Do not use these units to control pressures outside of the specified ranges.
†† Gauge with NSF approved materials not available.
¶ Relieving diaphragm only available with the R91G regulator.

ISO Symbols



See Section ALE-25 for Accessories

Technical Data

Fluid
- R91G: Compressed air and non-potable water
- R91W: Potable water, deionized water

Maximum pressure: 150 psig (10 bar)

Operating temperature
- Water service: 35° to 125°F (2° to 52°C)
- Air service: 0° to 125°F (-20° to 52°C) *

* When used in air service, air supply must be dry enough to avoid ice formation at temperatures below 35°F (2°C).

Typical flow for compressed air service at 150 psig (10 bar) inlet pressure, 90 psig (6.3 bar) set pressure and a droop of 15 psig (1 bar) from set: 24 scfm (11 dm³/s).

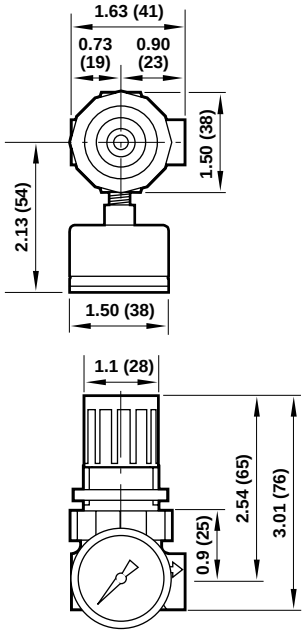
Typical flow for water service at 100 psig (7 bar) inlet pressure, 60 psig (4 bar) set pressure and a droop of 15 psig (1 bar) from set: 1.75 US gpm per minute (6.6 liters)

Gauge ports:
- 1/8 PTF with PTF main ports
- R1/8 with ISO Rc main ports
- R1/8 with ISO G main ports

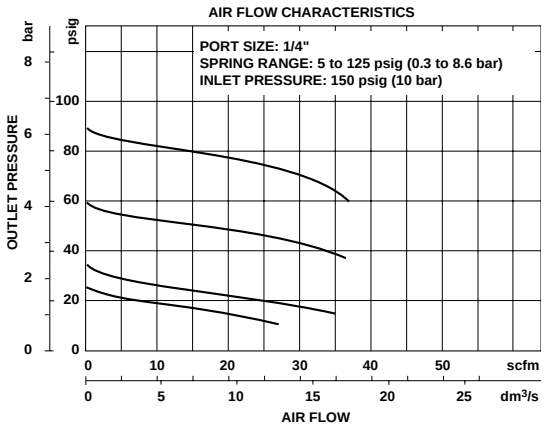
Materials
- Body and bonnet: Acetal
- Valve
  - R91G: Brass/nitrile
  - R91W: Stainless steel/food grade EPDM
- Valve seat: Acetal
- Valve seat o-ring
  - R91G: Nitrile
  - R91W: Food grade EPDM
- Diaphragm
  - R91G: Acetal/nylon inserted nitrile
  - R91W: Acetal/nylon inserted nitrile, food grade
- Gauge port plugs: Polypropylene (furnished only with PTF-ported units)

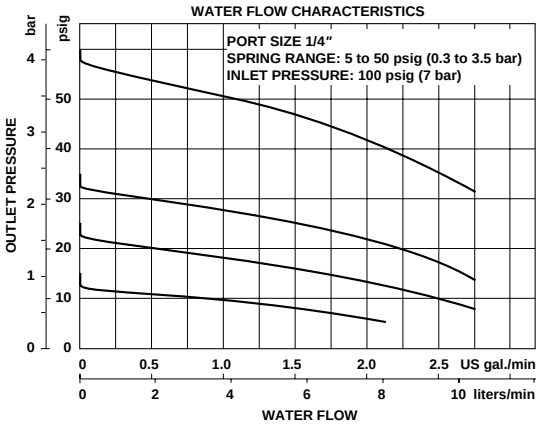
All Dimensions in Inches (mm)

Panel mounting hole diameter 1.19″ (30 mm)
Maximum panel thickness 0.25″ (6 mm)



Typical Performance Characteristics





Service Kits

Item	Type	Part number
Service kit	R91W, non relieving	3407-93
	R91G, non relieving	3407-94
	R91G, relieving	3407-95

Service kit contains slip ring, diaphragm, valve seat with o-ring, valve, and valve spring.

R14, R16

Miniature, Preset, Nonadjustable Pressure Regulator
Water and Compressed Air Service
1/8″ or 1/4″ PTF Port Sizes

- **Non-relieving models for air and water service**
- **Relieving models for air service allow reduction of outlet pressure even when the system is dead-ended**
- **R14 has aluminum body and bonnet**
- **R16 has brass body and bonnet**
- **Factory preset, tamper resistant pressure setting**
- **Non-repairable**

Ordering Information. Models listed are relieving type for compressed air service with PTF threads and with gauge ports

Port	Model	Flow† scfm (dm³/s)	Flow†† U.S. gpm (lpm)	Weight lb (kg)
1/8" PTF	R14-100-R**A	12 (5.7)	1.3 (4.9)	0.2 (0.09)
1/8" PTF	R16-100-R**A	12 (5.7)	1.3 (4.9)	0.7 (0.32)
1/4" PTF	R14-200-R**A	12 (5.7)	1.3 (4.9)	0.2 (0.09)
1/4" PTF	R16-200-R**A	12 (5.7)	1.3 (4.9)	0.7 (0.32)

† Approximate flow with 100 psig (7 bar) inlet pressure, 80 psig 5.5 bar() set pressure and a 15 psig (1 bar) droop from set.
†† Approximate flow with 100 psig (7 bar) inlet pressure, 60 psig (4 bar) set pressure and a 15 psig (1 bar) droop from set.

Alternative Models

R ★ ★ - ★ ★ ★ - ★ ★ ★ ★

Type/Service	Substitute
Piston; air service only	14
Diaphragm; air and water service	16

Port Size	Substitute
1/8″	1
1/4"	2

Gauge ports in body	Substitute
With gauge ports	00
Without gauge ports	01

Diaphragm	Substitute
Relieving	R
Non relieving	N

Threads	Substitute
PTF	A

** The ***8th*** and ***9th*** positions of the model number contain the ***Modified Outlet Pressure Setting***. The ***Modified Outlet Pressure Setting*** is the desired outlet pressure, modified to allow for inlet pressures other than 100 psig, and for flows other than zero. Insert the modified outlet pressure setting in positions 8 and 9 as described below.

1. Write down the desired outlet pressure and the flow through the regulator. EXAMPLE: ***30 psig outlet pressure at 10 scfm flow.***
2. Modifications for inlet pressures other than 100 psig:
   If inlet pressure exceeds 100 psig*, add 1 psig to the desired outlet pressure for each 20 psig the inlet pressure is above 100 psig*.
   EXAMPLE: If the inlet pressure is 180 psig, add 4 to the desired outlet pressure. Following through with the example in step 1, add 4 to 30 for a modified outlet pressure setting of ***34 psig.***
   If inlet pressure is less than 100 psig*, subtract 1 psig from the desired outlet pressure for each 20 psig the inlet pressure is below 100 psig*.
   EXAMPLE: If the inlet pressure is 60 psig, subtract 2 from the desired outlet pressure. Following through with the example in step 1, subtract 2 from 30 for a modified outlet pressure setting of ***28 psig.***
3. Modifications for flows other than zero:
   Determine the pressure drop from the appropriate flow curve above. Add the pressure drop to the modified outlet pressure setting.
   EXAMPLE: If the desired outlet pressure is 30 psig at a flow of 10 scfm, add 10 to the modified outlet pressure setting. The quantity of 10 is the difference between the outlet pressure (30 psig) at the desired flow (10 scfm) and outlet pressure (40 psig) at no flow. See dashed lines on the air flow curve for example. Following through with the first example in Step 2 above, add 10 to the 34 to obtain a modified outlet pressure setting of ***44.*** Enter ***44*** in the 8th and 9th positions of the model number.

* 125 psig for outlet pressure settings of 95 through 99 psig.

Technical Data

Fluid
- R14: Compressed air
- R16: Water and compressed air

Maximum pressure: 400 psig (27 bar)

Operating temperature
- Water service: 35° to 175°F (2° to 79°C)
- Air service: -30° to 175°F (-34° to 79°C) *

* Air supply must be dry enough to avoid ice formation at temperatures below 35°F (2°C).

Type
- R14: Piston, relieving or non-relieving
- R16: Diaphragm. relieving or non-relieving

Typical flow for water service at 100 psig (7 bar) inlet pressure, 60 psig (4 bar) set pressure and a droop of 15 psig (1 bar) from set: 1.3 U.S. gpm (4.9 liters per minute)

Typical flow for compressed air service at 100 psig (7 bar) inlet pressure, 80 psig (5.5 bar) set pressure and a droop of 15 psig (1 bar) from set: 12 scfm (5.7 dm^3/s)

Gauge ports: 1/8" PTF

Factory preset outlet pressure settings: 0,2 to 6,8 bar (3 to 99 psig)

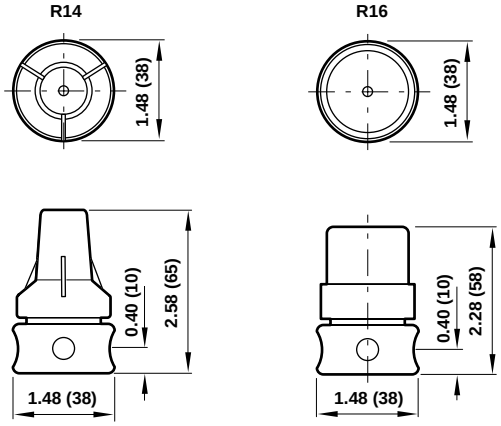
Outlet pressure tolerance:

Outlet pressure setting - psig (bar)	Tolerance - psig (bar) **
3 to 20 psig (0.21 to 1.38 bar)	± 1.0 psig (0.07 bar)
21 to 50 psig (1.45 to 3.45 bar)	± 2.0 psig (0.14 bar)
51 to 99 psig (3.52 to 6.84 bar)	± 3.0 psig (0.21 bar)

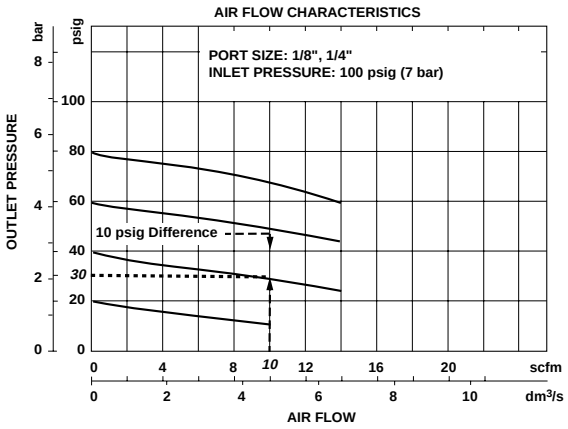
** When outlet pressure is preset at the factory, the following conditions exist
Flow thru regulator: No flow
Inlet pressure:
100 psig (6.9 bar) for outlet pressures up through 95 psig (6.6 bar)
125 psig (8.6 bar) for outlet pressures of 96 through 99 psig (6.7 through 6.8 bar)

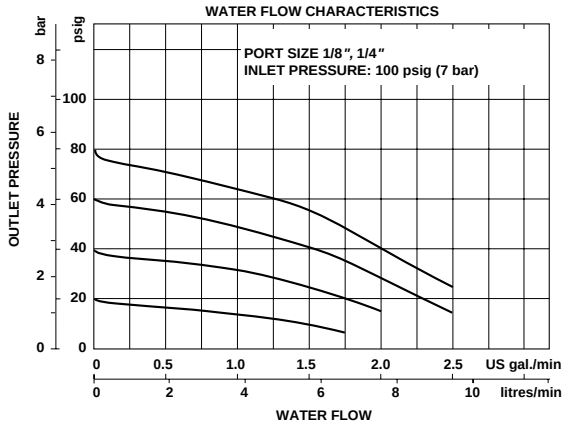
Materials
- Body and bonnet
  - R14: Aluminum
  - R16: Brass
- Valve: Brass
- Valve seat: Acetal resin
- Elastomers: Nitrile

All Dimensions in Inches (mm)

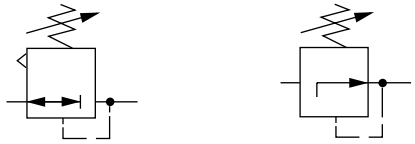


Typical Performance Characteristics





ISO Symbols



See Section ALE-25 for Accessories

R43

Water and Compressed Air Service Pressure Regulator 1/4", 3/8" and 1/2" Port Sizes

- **Non-relieving models**
- **Brass body, corrosion resistant construction**
- **Balanced valve minimizes effects of inlet pressure variations on outlet pressure**
- **T-bar adjustment standard, nonrising knob adjustment optional**
- **Full flow gauge ports can be used as auxiliary outlets**
- **Panel mounting nut standard**
- **Can be disassembled without the use of tools or removal from the air or water line.**

Ordering Information. Models listed have T-handle adjustment, 5 to 125 psig (0.3 to 8.5 bar) outlet pressure adjustment range*, and PTF threads. A gauge is not included.

Port	Model	Flow† U.S. gpm (lpm)	Weight lb (kg)
1/4"	R43-201-NNLA	6 (23)	2.4 (1.09)
3/8"	R43-301-NNLA	6 (23)	2.4 (1.09)
1/2"	R43-406-NNLA	9 (34)	2.4 (1.09)

Alternative Models

R 4 3 - ★ ★ ★ - ★ ★ ★ ★

Port Size	Substitute
1/4"	2
3/8"	3
1/2"	4

Adjustment	Substitute
Knob	00
T-handle with 1/4" and 3/8" ports	01
T-handle with 1/2" ports	06

Diaphragm	Substitute
Non relieving	N

Threads	Substitute
PTF	A
ISO Rc taper	B
ISO G parallel	G

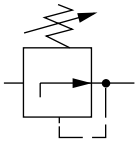
Outlet Pressure Adjustment Range*	Substitute
5 to 50 psig (0.3 to 3.5 bar)	E
5 to 125 psig (0.3 to 8.6 bar)	L
15 to 250 psig (1 to 17 bar)	S

Gauges	Substitute
With	G
Without	N

* Outlet pressure can be adjusted to pressures in excess of, and less than, those specified. Do not use these units to control pressures outside of the specified ranges.

† Typical flow with 150 psig (10 bar) inlet pressure, 90 psig (6.3 bar) set pressure and 15 psig (1 bar) droop from set.

ISO Symbols



Non relieving

See Section ALE-25 for Accessories

Technical Data

Fluid: Water and compressed air
Maximum pressure: 400 psig (27 bar)
Operating temperature:
Water service: 35° to 200°F (2° to 93°C)
Air service: -30° to 200°F (-34° to 93°C) *

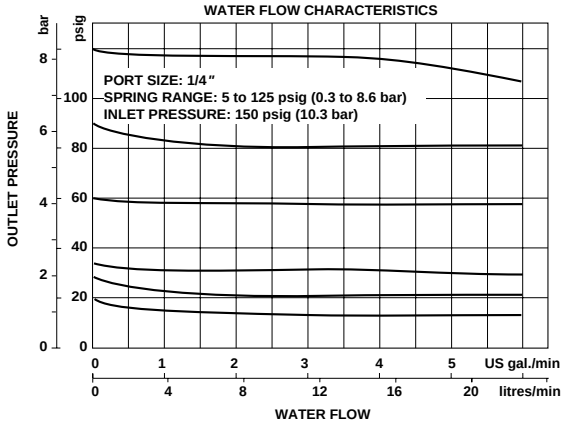
* Air supply must be dry enough to avoid ice formation at temperatures below 35°F (2°C).

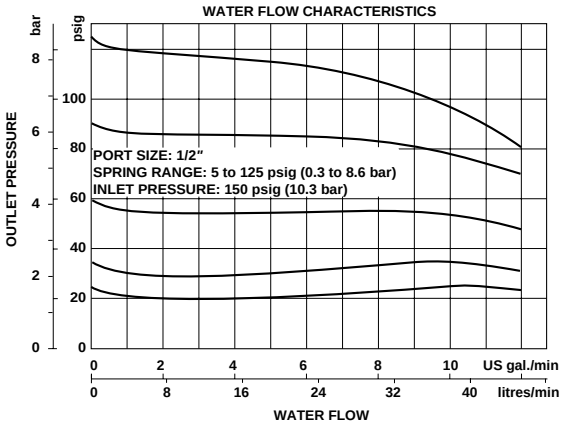
Typical flow for water service at 150 psig (10.3 bar) inlet pressure, 60 psig (4 bar) set pressure and a droop of less than 5 psig (0.35 bar) from set:
1/4", 3/8" Ports: 6 U.S. gpm (22 liters per minute)
1/2" Ports: 9 U.S. gpm (45 liters per minute)

Gauge ports
1/4" PTF with PTF main ports
1/4" ISO G with ISO G main ports
1/4" ISO Rc with ISO Rc main ports

Materials:
Body: Brass
Bonnet: Aluminum
Valve: Brass
Bottom plug: Brass
Elastomers: Nitrile

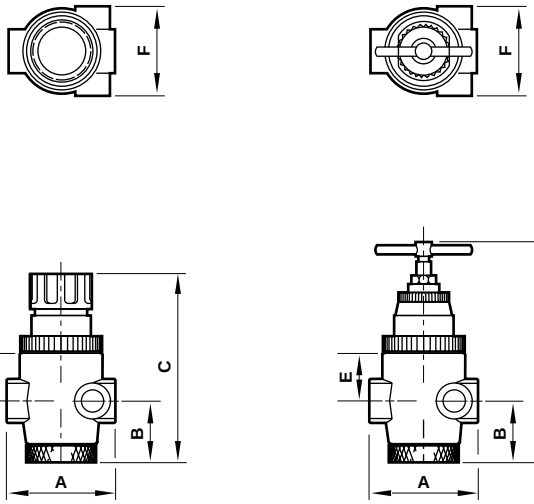
Typical Performance Characteristics





All Dimensions in Inches (mm)

Panel mounting hole diameter: 1.89" (48 mm)
Maximum panel thickness: 0.19" (5 mm)



Port Size	A	B	C	D	E	F
1/4", 3/8"	2.76 (70)	1.52 (39)	4.86 (124)	5.75 (146)	1.21 (31)	2.31 (59)
1/2"	3.34 (85)	1.59 (41)	5.01 (127)	5.90 (150)	1.28 (33)	2.44 (62)

Service Kits

Item	Type	Part number
Service kit	For 1/4" and 3/8" ported units	5298-03
	For 1/2" ported units	5298-10

Service kit includes diaphragm, o-rings, valve, valve spring.

11-009

Water and Compressed Air Service
Pressure Regulator 3/4", 1" Port Sizes

- **Non-relieving models**
- **Brass body, corrosion resistant construction**
- **Balanced valve minimizes effects of inlet pressure variations on outlet pressure**
- **T-bar adjustment standard, screw adjustment optional**
- **Large diaphragm provides accurate and quick response to changes in line pressure and varying flow demands**
- **Can be disassembled without removal from the air or water line.**

Ordering Information. Models listed have PTF threads, T-bar adjustment, non-relieving diaphragm, and 5 to 125 psig (0.3 to 8.5 bar) outlet pressure adjustment range*. A gauge is not included.

Port Size	Model Number	Flow † U.S. gpm (lpm)	Weight lbs (kg)
3/4"	11-009-065	27.5 (104)	3.54 (7.8)
1"	11-009-081	27.5 (104)	3.40 (7.5)

*Outlet pressure can be adjusted to pressures in excess of, and less than, those specified. Do not use these units to control pressures outside of the specified ranges.

† Typical flow with 100 psig (6.9 bar) inlet pressure, 60 psig (4 bar) set pressure and 15 psig (1 bar) droop from set.

Alternative Models

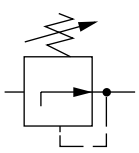
11 - ★09 - ★★★ - ★★

Threads	Substitute
PTF	0
ISO G parallel	8
ISO G Rc	9

Option	Substitute
Screw adjustment	7G
Mounting bracket assembled to unit	1D

With Gauge	Substitute
3/4" Ported Unit	073
1" Ported Unit	089

ISO Symbols



Non relieving

See Section ALE-25 for Accessories

Technical Data

Fluid: Water and compressed air
Maximum pressure: 400 psig (28 bar)
Operating temperature
Water service: 35° to 200°F (2° to 93°C)
Air service: -30° to 200°F (-34° to 93°C) *

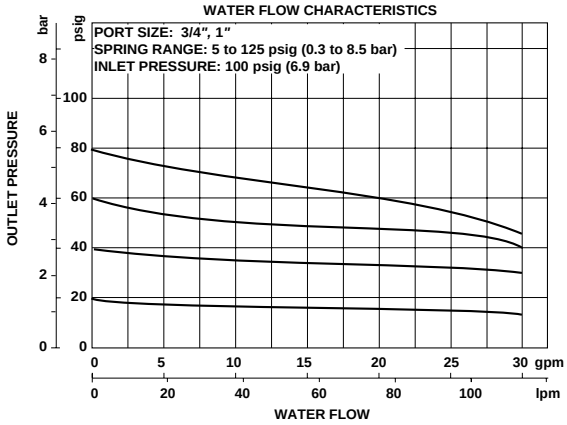
* Air supply must be dry enough to avoid ice formation at temperatures below 35°F (2°C).

Typical flow at 100 psig (6.9 bar) inlet pressure, 60 psig (4 bar) set pressure and a 15 psig (1 bar) droop from set:
27.5 U.S. gpm (104 liters per minute)

Gauge ports:
1/8" PTF with PTF main ports
G1/8 with ISO G main ports
Rc1/4 with ISO Rc main ports

Materials
Body: Brass
Bonnet: Aluminum and steel
Valve: Brass
Bottom plug: Brass
Elastomers: Nitrile

Typical Performance Characteristics

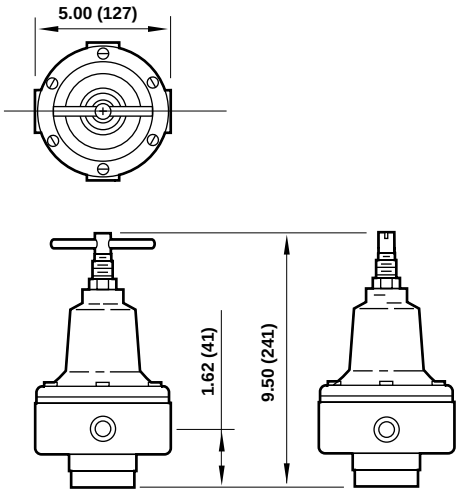


Service Kits

Type	Part number
Non-relieving	2436-03

Service kit includes diaphragm, valve seat, valve pin, valve pin gasket, valve, valve spring, and o-rings.

All Dimensions in Inches (mm)



11-002

Pressure Regulator
1/4", 3/8", 1/2" Port Sizes

- **Large diaphragm provides accurate and quick response to changing flow demands and line pressure**
- **Floating valve pin provides positive valve seating**
- **Balanced valve minimizes effect of variations in inlet pressure on outlet pressure**
- **Standard relieving models allow reduction of downstream pressure when the system is dead-ended**

Ordering Information. Models listed have PTF threads, T-bar adjustment, relieving diaphragm, and 5 to 125 psig (0.3 to 8.5 bar) outlet pressure adjustment range*.

Port Size	Model Number	Flow† scfm (dm³/s)	Weight lbs (kg)
1/4"	11-002-013	110 (52)	1.9 (0.86)
3/8"	11-002-037	110 (52)	1.9 (0.86)
1/2"	11-002-061	260 (123)	2.0 (0.91)

† Typical flow with 150 psig (10 bar) inlet pressure, 90 psig (6.3 bar) set pressure and 15 psig (1 bar) droop from set.
*Outlet pressure can be adjusted to pressures in excess of, and less than, those specified. Do not use these units to control pressures outside of the specified ranges.

Alternative Models

11 - ★02 - ★★★ - ★★

Threads	Substitute
PTF	0
ISO G parallel	8
ISO G Rc	9

Option	Substitute
Handwheel adjustment	8C
Screw adjustment	8B
Mounting bracket assembled to unit	1A
Threaded bonnet for panel mounting, hand wheel adjustment	2A
Threaded bonnet for panel mounting, T-bar adjustment	2B
Threaded bonnet for panel mounting, screw adjustment	2C

Outlet Pressure Adjustment Range* 5 to 50 psig (0.3 to 3.5 bar)			
Port Size	Relief Type	Gauge	Substitute
1/4"	Non-relieving	Without	003
1/4"	Relieving	Without	015
3/8"	Non-relieving	Without	027
3/8"	Relieving	Without	039
1/2"	Non-relieving	Without	051
1/2"	Relieving	Without	063
1/4"	Non-relieving	With	009
1/4"	Relieving	With	021
3/8"	Non-relieving	With	033
3/8"	Relieving	With	045
1/2"	Non-relieving	With	057
1/2"	Relieving	With	069

Outlet Pressure Adjustment Range* 5 to 125 psig (0.3 to 8.5 bar)			
Port Size	Relief Type	Gauge	Substitute
1/4"	Non-relieving	Without	001
1/4"	Relieving	Without	013
3/8"	Non-relieving	Without	025
3/8"	Relieving	Without	037
1/2"	Non-relieving	Without	049
1/2"	Relieving	Without	061
1/4"	Non-relieving	With	007
1/4"	Relieving	With	019
3/8"	Non-relieving	With	031
3/8"	Relieving	With	043
1/2"	Non-relieving	With	055
1/2"	Relieving	With	067

Outlet Pressure Adjustment Range* 5 to 250 psig (0.3 to 17 bar)			
Port Size	Relief Type	Gauge	Substitute
1/4"	Non-relieving	Without	005
1/4"	Relieving	Without	017
3/8"	Non-relieving	Without	029
3/8"	Relieving	Without	041
1/2"	Non-relieving	Without	053
1/2"	Relieving	Without	065
1/4"	Non-relieving	With	011
1/4"	Relieving	With	023
3/8"	Non-relieving	With	035
3/8"	Relieving	With	047
1/2"	Non-relieving	With	059
1/2"	Relieving	With	071

* Outlet pressure can be adjusted to pressures in excess of, and less than, those specified. Do not use these units to control pressures outside of the specified ranges.

See Section ALE-25 for Accessories

Technical Data

Fluid: Compressed air
Maximum pressure: 400 psig (28 bar)
Operating temperature*: -30° to 175°F (-34° to 80°C)
*Air supply must be dry enough to avoid ice formation at temperatures below 35°F (2°C)
Typical flow with 150 psig (10 bar) inlet pressure, 90 psig (6.3 bar) set pressure and 15 psig (1 bar) droop from from set:
- 1/4" and 3/8" ports: 110 scfm (52 dm^3/s)
- 1/2" ports: 260 scfm (123 dm^3/s)

Gauge ports
- 1/8" PTF with PTF main ports
- Rc1/8 with ISO G and ISO Rc main ports

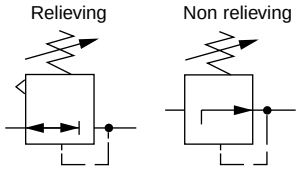
Materials
- Body: Zinc
- Bonnet: Aluminum
- Valve: Brass and nitrile
- Valve seat: Brass
- Elastomers: Nitrile
- Bottom plug
  - 1/4" and 3/8" Ports: Brass
  - 1/2" Ports: Nylon

Service Kits

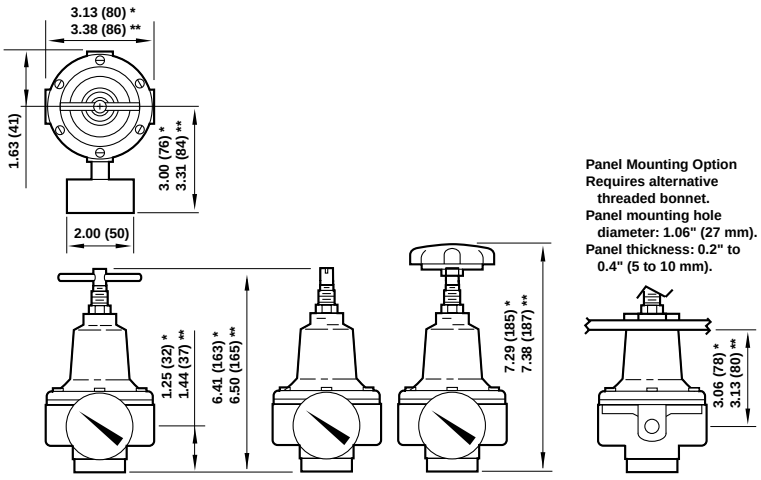
Type	Part number
Relieving, 1/4" and 3/8" ports	529-03
Relieving, 1/2" ports	535-03
Non-relieving, 1/4" and 3/8" ports	529-01
Non-relieving, 1/2" ports	535-01

Service kit includes diaphragm, valve, valve spring, and o-rings.

ISO Symbols



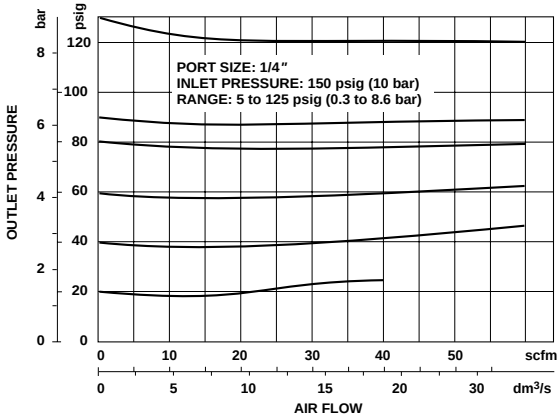
All Dimensions in Inches (mm)



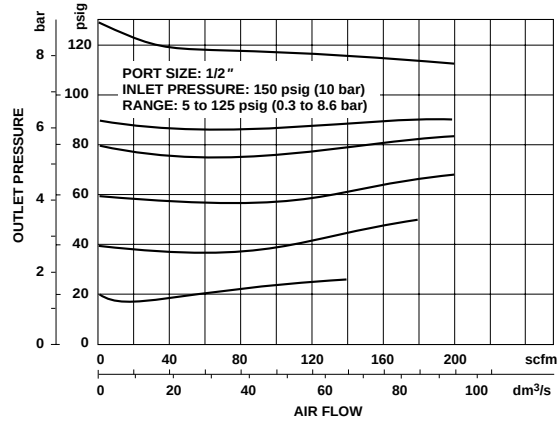
* Regulators with 1/4" and 3/8" ports.
** Regulators with 1/2" ports.

Typical Performance Characteristics

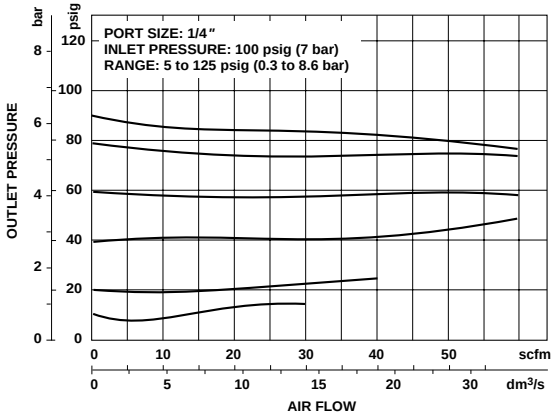
FLOW CHARACTERISTICS



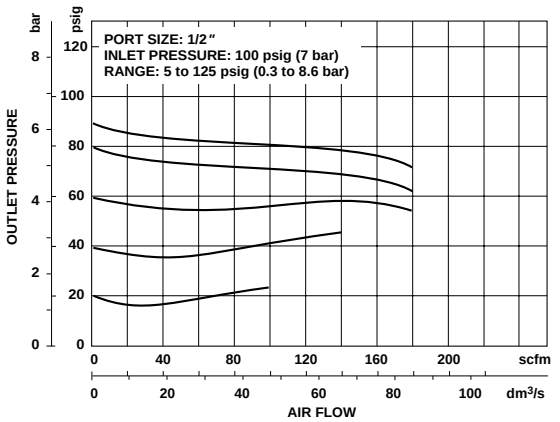
FLOW CHARACTERISTICS



FLOW CHARACTERISTICS



FLOW CHARACTERISTICS



R24

Micro Trol Pressure Regulator
1/4" to 1-1/4" Port Sizes

- **High flow regulator with exceptional high relief flow**
- **Adjusting knob can be set in the field to stop at some maximum pressure setting or some minimum pressure setting**
- **Easy to adjust even at high output pressures**
- **Balanced valve minimizes effect of variations in inlet pressure on outlet pressure**
- **Constant bleed feature provides maximum sensitivity to system changes**
- **Relieving feature allows reduction of downstream pressure when the system is dead-ended**
- **Full flow gauge ports**

Ordering Information. Models listed are constant bleed units with relieving diaphragm, 10 to 125 psig (0.7 to 8 bar) outlet pressure adjustment range, and PTF threads.

Port Size	Model	Weight lb (kg)
1⁄4"	R24-200-RGLA	1.90 (0.86)
3⁄8"	R24-300-RGLA	1.83 (0.83)
1⁄2"	R24-400-RGLA	1.79 (0.81)
3⁄4"	R24-600-RGLA	2.73 (1.24)
1"	R24-800-RGLA	2.73 (1.24)
1-1⁄4"	R24-A00-RGLA	2.65 (1.20)

Alternative Models

R 2 4 - ★ ★ ★ - ★ ★ ★ ★

Port Size	Substitute
1/4"	2
3/8"	3
1/2"	4
3/4"	6
1"	8
1-1/4"	A

Option	Substitute
Not applicable	0

Type	Substitute
Knob adjusting	0

Threads	Substitute
PTF	A
ISO Rc taper	B
ISO G parallel	G

Outlet Pressure Adjustment Ranges*	Substitute
5 to 30 psig (0.3 to 2 bar)	C
5 to 60 psig (0.3 to 4 bar)	F
10 to 125 psig (0.7 to 8 bar)	L
10 to 250 psig (0.7 to 17 bar)	S

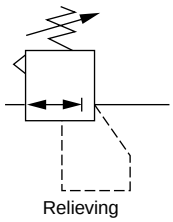
Gauge	Substitute
With	G**
Without	N

Diaphragm	Substitute
Relieving	R

* Outlet pressure can be adjusted to pressures in excess of, and less than, those specified. Do not use these units to control pressures outside of the specified ranges.

** A factory installed gauge is only available with PTF threads (***A*** in last position of model number). If a gauge is desired with ISO threads (***B*** or ***G*** in last position), order the desired gauge and appropriate reducing bushing from ***Accessories***.

ISO Symbol



See Section ALE-25 for Accessories

Technical Data

Fluid: Compressed air
Maximum inlet pressure: 300 psig (20 bar)
Operating temperature: 0° to 150°F (-20° to 80°C)*

* Air supply must be dry enough to avoid ice formation at temperatures below 35°F (2°C).

Typical flow with 150 psig (10 bar) inlet pressure, 90 psig (6.3 bar) set pressure and 15 psig (1 bar) droop from from set
- 1/2" ports: 200 scfm (94 dm^3/s)
- 1-1/4" ports: 700 scfm (330 dm^3/s)

Maximum bleed rate at 50 psig (3.5 bar) outlet pressure: 0.031 scfm (0.016 dm^3/s) †

† Maximum bleed rate occurs under dead-end (no flow) conditions.

Port sizes:

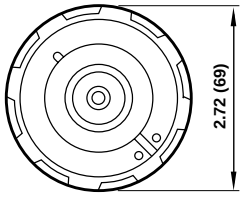
Main	Gauge
1/4"	1/4"
3/8"	3/8"
1/2", 3/4", 1", 1-1/4"	1/2"

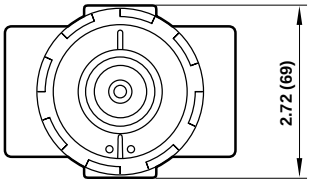
Thread type: PTF, ISO G, or Rc

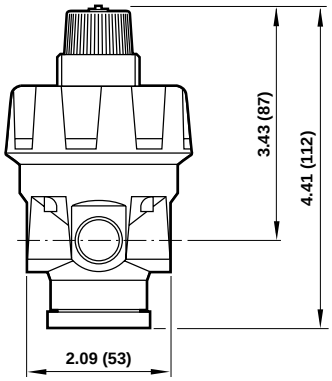
Materials
- Body, top cap: Zinc
- Main valve, adjusting screw: Brass
- Pilot valve, relief valve: Acetal
- Elastomers: Nitrile
- Bottom Plug: Acetal

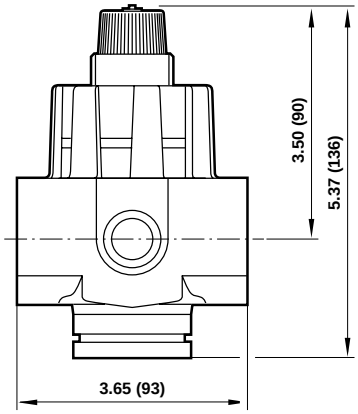
All Dimensions in Inches (mm)

Panel mounting hole diameter: 1.26" (32 mm)
Maximum panel thickness: 0 to 0.12" (3 mm)



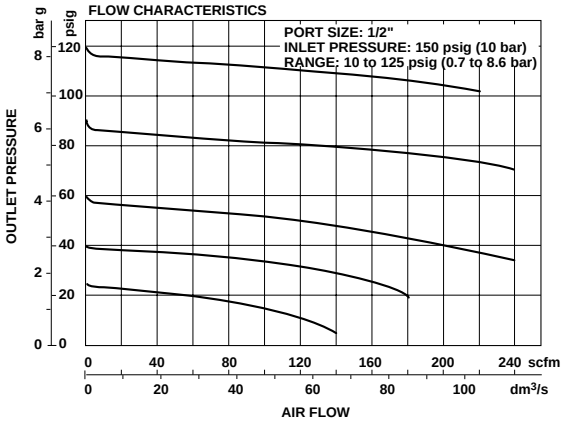


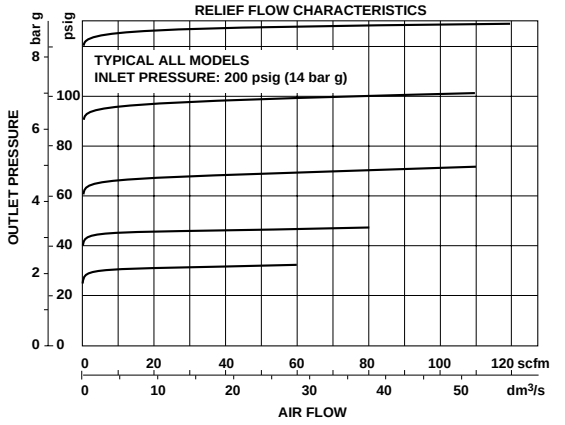


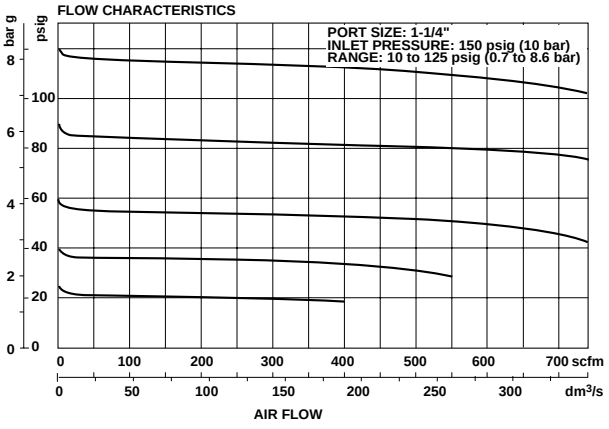


Typical Performance Characteristics

RANGE: 10 to 232 psi (0.7 to 16 bar)







Service Kits

Item	Type	Part number
Service kit	1/4, 3/8, 1/2	5292-52
Service kit	3/4, 1, 1-1/4	5292-53

Service kits include seals, main valve and spring.