

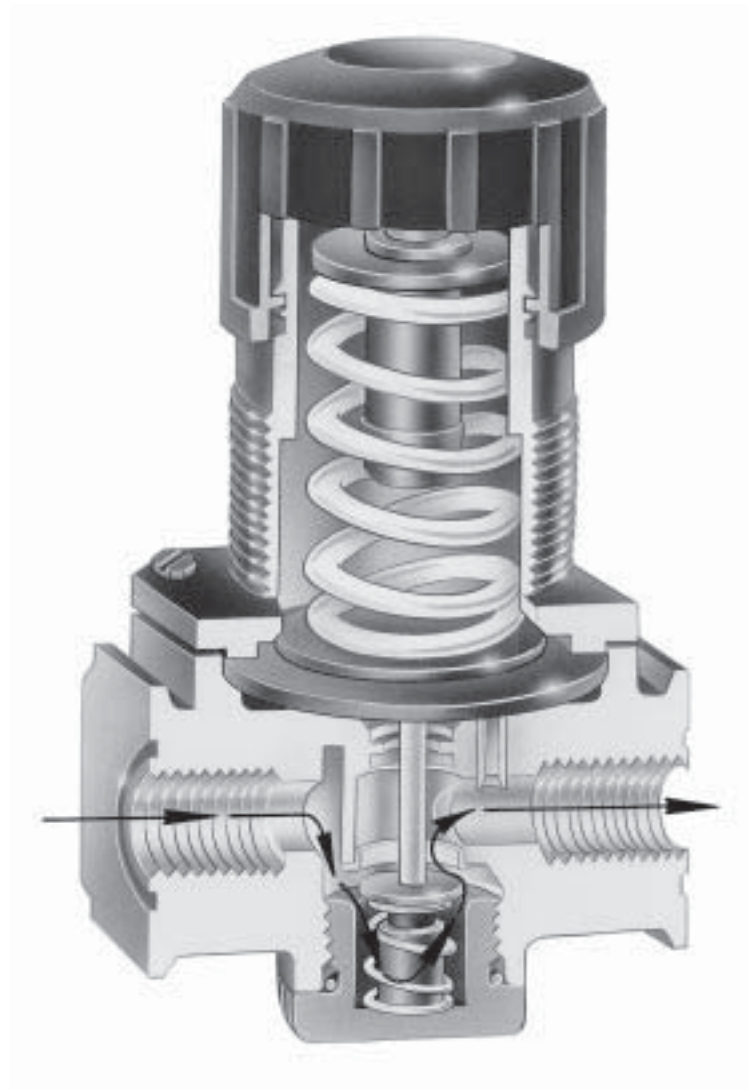


# REGULATORS

Pneumatic devices are designed to work at a certain pressure. Most devices will operate at pressures in excess of that recommended. However, operating at higher pressures can cause excess torque, force and wear and can waste compressed air. The best operation and life of the device can be obtained by using the proper pressure level. A regulator is used to reduce and maintain the pressure at a level suitable for the device.

Arrow's quality Regulators include the Miniature Series which are high performance, low cost regulators for the O.E.M. market and low flow applications up to 25 scfm. Arrow's Tri•Star Series are compact, lightweight regulators engineered for superior performance in a wide range of applications where air flow does not exceed 100 scfm. Arrow's Midflow Series regulators are compact and available in 3/8", 1/2", 3/4" & 1" with air flows exceeding 200 SCFM. Arrow's High Flow Series heavy duty regulators are for rigorous applications requiring constant pressure for flows up to 700 scfm.

The General Purpose Precision Series features state-of-the-art engineering for precision control in critical tolerance applications. These regulators are available in standard and pilot operated models for both low and high flow applications. The Arrow Precision Regulator lineup can be tailored to fit your specific needs. All Arrow regulators are easily panel mounted. All Arrow regulators are designed with a micro seat finish to ensure no reduced pressure creep.



## Miniature Air Regulators



### SPECIFICATIONS

#### Body

- Zinc, black coated

#### Bonnet

- Glass filled nylon

#### Seals

- Buna N

#### Supply Pressure

- 250 psig

#### Operating Pressure Range

- 5 to 125 psig standard
- 3 to 60 psig optional
- 3 to 20 psig optional

#### Operating Temperature Range

- 40°F to 120°F

#### Gauge Ports

- 1/8" standard, full flow

### KITS

#### Panel Mounting Kit

- Ring only, panel hole size 1 3/16" . . . . . PK1611

#### Diaphragm Kits

- Relieving . . . . . RK260
- Non-relieving . . . . . RK260N

#### Bracket Kit see page 65

- Bracket and ring . . . . . BR1611

### FEATURES

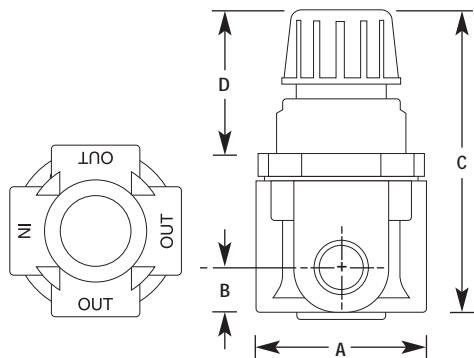
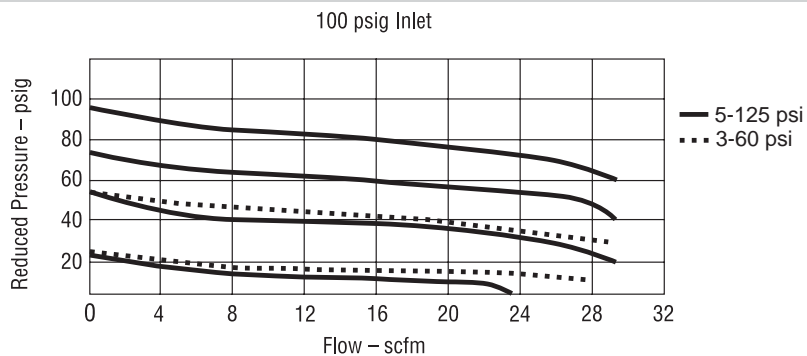
- Micro seat finish to ensure no reduced pressure creep
- Diaphragm operation
- Relieving style standard
- Three position non-rising adjustment knob; push to lock, pull to adjust, detach to make tamper resistant
- Easily panel mounted
- Tamper-proof cap included

### OPTIONS

add suffix to part number in alpha order

- B** 2-Position mechanical  
Lock Knob . . . . . R162B
- G** Gauge (5-160 psi) . . . . . R162G
- I** Instrument pressure . . . . . R162I  
3 to 20 psi adjustment
- L** Low pressure . . . . . R162L  
3 to 60 psi adjustment
- N** Non-relieving . . . . . R162N
- P** Panel mount . . . . . R162P
- U** No gauge ports . . . . . R162U

### PERFORMANCE CHARACTERISTICS



### DIMENSIONS

PIPE SIZE	MODEL NO.	MAX. FLOW SCFM	DIMENSIONS (INCHES)				WEIGHT (OZS.)
			A	B	C	D	
1/8"	R161	25	1 1/2	1/2	2 3/4	1 1/4	6
1/4"	R162	25	1 1/2	1/2	2 3/4	1 1/4	6

## Miniature Air Regulators



### SPECIFICATIONS

#### Body

- Glass filled nylon

#### Bonnet

- Glass filled nylon

#### Seals

- Buna N

#### Supply Pressure

- 250 psig

#### Operating Pressure Range

- 5 to 125 psig standard
- 3 to 60 psig optional
- 3 to 20 psig optional

#### Operating Temperature Range

- 40°F to 120°F

#### Gauge Ports

- 1/8" standard, full flow

### KITS

#### Panel Mounting Kit

- Ring only, panel hole size 1 3/16" . . . . . PK1611

#### Diaphragm Kits

- Relieving . . . . . RK260
- Non-relieving . . . . . RK260N

#### Bracket Kit see page 65

- Bracket and ring . . . . . BR1611

### Applications

- Non-relieving diaphragm can be used on liquid applications

### FEATURES

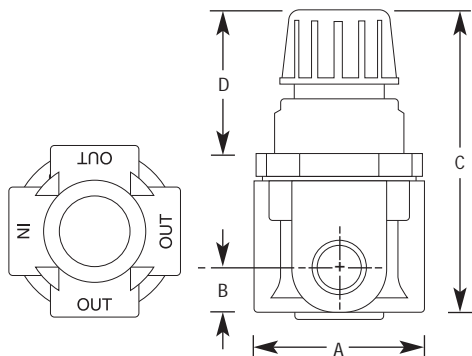
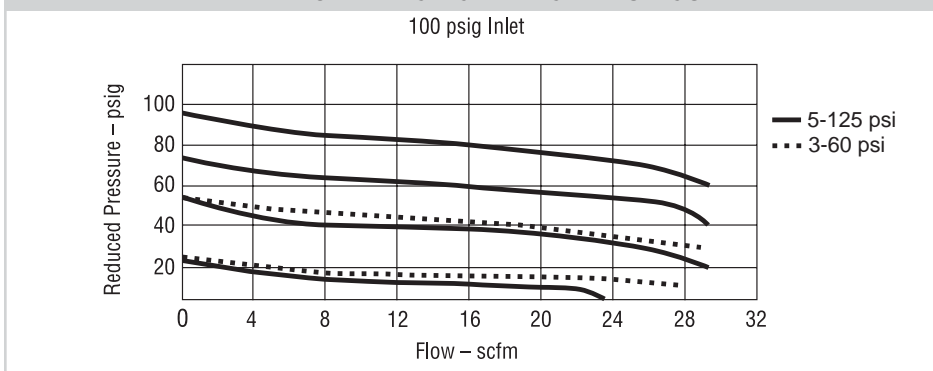
- Micro seat finish to ensure no reduced pressure creep
- Diaphragm operation
- Relieving style standard
- Three position non-rising adjustment knob; push to lock, pull to adjust, detach to make tamper resistant
- Easily panel mounted
- Tamper-proof cap included
- Lightweight

### OPTIONS

add suffix to part number in alpha order

- B 2-Position Mechanical Lock Knob . . . . . R262B
- G Gauge (0-160 psi) . . . . . R262G
- I Instrument pressure 3 to 20 psi adjustment . . . . . R262I
- L Low pressure 3 to 60 psi adjustment . . . . . R262L
- N Non-relieving . . . . . R262N
- P Panel mount . . . . . R262P
- U No gauge ports . . . . . R262U
- V All 1/4" ports . . . . . R262V
- Y1 Viton diaphragm/valve set R262Y1
- Y2 EDPM diaphragm/valve set R262Y2

### PERFORMANCE CHARACTERISTICS



### DIMENSIONS

PIPE SIZE	MODEL NO.	MAX. FLOW SCFM	DIMENSIONS (INCHES)				WEIGHT (OZS.)
			A	B	C	D	
1/8"	R261	25	1 1/2	1/2	2 3/4	1 1/4	2
1/4"	R262	25	1 1/2	1/2	2 3/4	1 1/4	2

## Miniature Water Regulators



### SPECIFICATIONS

- Body
  - Glass filled nylon
- Bonnet
  - Glass filled nylon
- Seals
  - Buna N elastomer standard
- Spring
  - 316 stainless steel
- Valve
  - 316 stainless steel
- Flow
  - 5 gpm
- Supply Pressure
  - 250 psig
- Operating Pressure Range
  - 5 to 125 psig
- Operating Temperature Range
  - 40°F to 120°F
- Gauge Port
  - (1) 1/8" standard, full flow

### KITS

- Panel Kit
  - Ring only  
panel hole size 1 3/16" . . . . . PK1611
- Diaphragm Kit
  - Non-relieving . . . . . RK260N
- Mini Mounting Bracket see page 65
  - Bracket and Ring . . . . . BR1611

### APPLICATIONS

- R360 series miniature water pressure regulator meets all pending restrictions on the use of brass in water systems.
- Prevent water hammer effect.
- Vending machines that require a water mixer
- Drinking fountains
- Home water filtration systems

### FEATURES

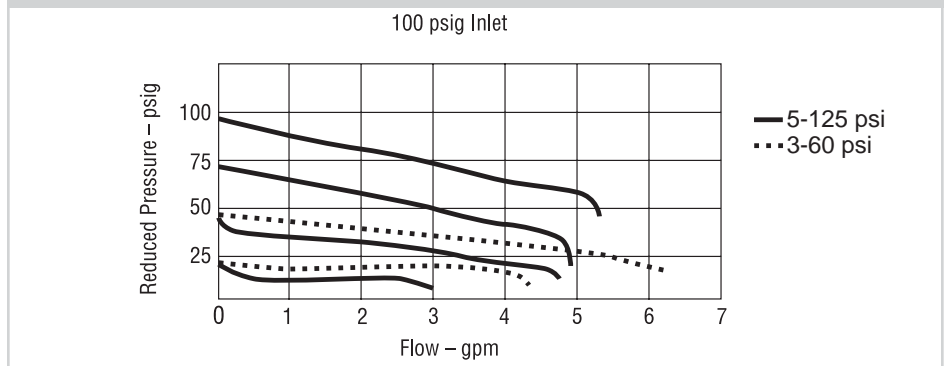
- Micro seat finish ensuring no reduced pressure creep
- Sonic welded, leak-tight, non-relieving diaphragm assembly
- Water hammer and vibration dampner
- Three position adjustment knob: "push" to lock, "pull" to adjust and "detach" to make tamper resistant
- Excellent flow characteristics due to the large open outlet orifice
- Flexibility of design, offering all stainless internals and three elastomer selections
- Plastic (glass-filled nylon) construction
- One standard gauge port full flow
- Tamper-proof cap included

### OPTIONS

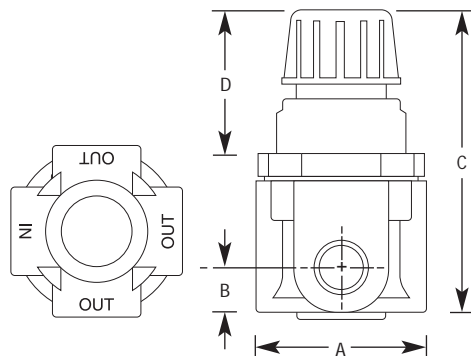
add suffix to part number in alpha order

- B 2-Position Mechanical Lockout Knob . . . . . R362B
- G Gauge (0-160 psi) . . . . . R362G
- I Instrument pressure . . . . . R362I  
3 to 20 psi adjustment
- L Low pressure . . . . . R362L  
3 to 60 psi adjustment
- P Panel mount . . . . . R362P
- U No gauge port . . . . . R362U
- V All 1/4" ports . . . . . R362V
- Y1 Viton diaphragm/valve set . . R362Y1
- Y2 EDPM diaphragm/valve set . R362Y2

### PERFORMANCE CHARACTERISTICS



### DIMENSIONS



PIPE SIZE	MODEL NO.	MAX. FLOW GPM	DIMENSIONS (INCHES)				WEIGHT (OZS.)
			A	B	C	D	
1/8"	R361	5	1 1/2	1/2	2 3/4	1 1/4	3
1/4"	R362	5	1 1/2	1/2	2 3/4	1 1/4	3

# Push-to-Connect Regulators

## R24

## R34



### SPECIFICATIONS

- Body**
- Glass filled nylon
- Bonnet**
- Glass filled nylon
- Seals**
- Buna N
- Spring**
- 316 Stainless Steel
- Supply Pressure**
- 250 psig

### Operating Pressure Range

- 5 to 125 psig

### Operating Temperature Range

- 40°F to 120°F

### Gauge Ports

- (2) 1/8" Standard, full flow R240 only

### KITS

#### Diaphragm Kit

- Relieving . . . . . RK260
- Non-relieving . . . . . RK260N

#### Mounting Kits see page 65

- Bracket & Ring . . . . . BR1611
- Ring Only . . . . . PK1611

### FEATURES

- Fast installation time
- Eliminates inlet and outlet fittings
- No pipe sealant
- Quick disconnect
- No tools needed
- Reduces potential leak points
- Micro-finish valve seat ensures no reduced creep
- Reduces potential leak points
- Easily panel mounted
- Tamper proof cap included
- Lightweight

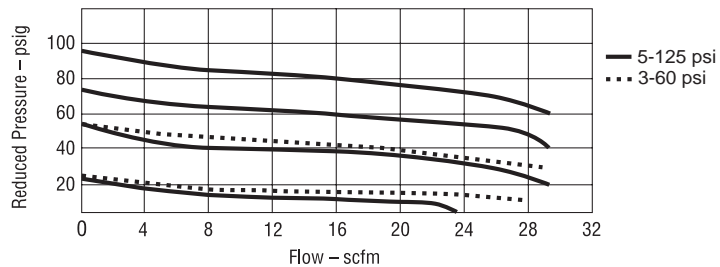
### OPTIONS

- add suffix to part number in alpha order
- B 2 Position Mechanical . . . . . R242B  
Lock Knob
  - G Gauge (0-160 psi) . . . . . R242G
  - I Instrument pressure (3-20psi) . . . . . R242G
  - L Low Pressure (3 - 60 psi) . . . . . R242L
  - N Non-relieving . . . . . R242N
  - P Panel mount . . . . . R242P
  - Y1 Viton diaphragm/valve set . . . . . R242Y1
  - Y2 EDPM diaphragm/valve set . . . . . R242Y2

### PERFORMANCE CHARACTERISTICS

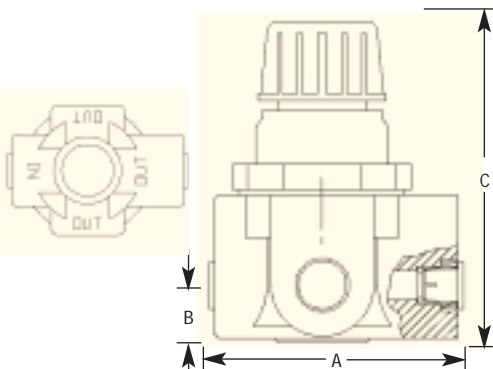
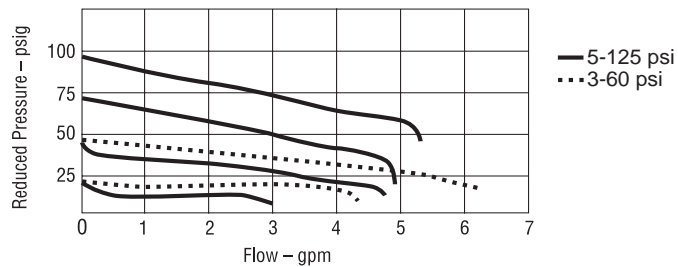
#### R242 - Air

100 psig Inlet



#### R342 - Water

100 psig Inlet



### DIMENSIONS

PIPE SIZE	MODEL NO.	MAX. FLOW SCFM	DIMENSIONS (INCHES)			WEIGHT (OZ.)
			A	B	C	
1/4"	R242	30	2 <sup>3</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>16</sub>	2 <sup>3</sup> / <sub>4</sub>	2.9
1/4"	R342	5	2 <sup>3</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>16</sub>	2 <sup>3</sup> / <sub>4</sub>	2.9



# Tri•Star Regulators

**R35**

## SPECIFICATIONS

- Body**
- Black coated aluminum
- Bonnet**
- Glass filled nylon
- Seals**
- Buna N Elastomer standard
- Seat**
- Brass

## KITS

- Repair Kits**
- Diaphragm kit relieving . . . . . DK35
  - Diaphragm kit Non-relieving . . . . . DK35N
  - Valve kit . . . . . VK35
- Mounting Kits see page 65**
- Bracket kit . . . . . RBK5
  - Panel mounting kit ring only panel hole size 1<sup>3</sup>/<sub>16</sub>" . . . . . PKR35
  - Panel mount bracket and ring . . . . . PMKR35

## FEATURES

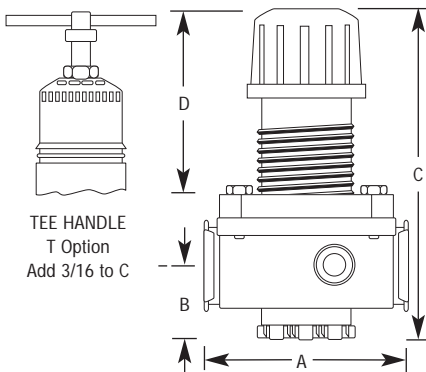
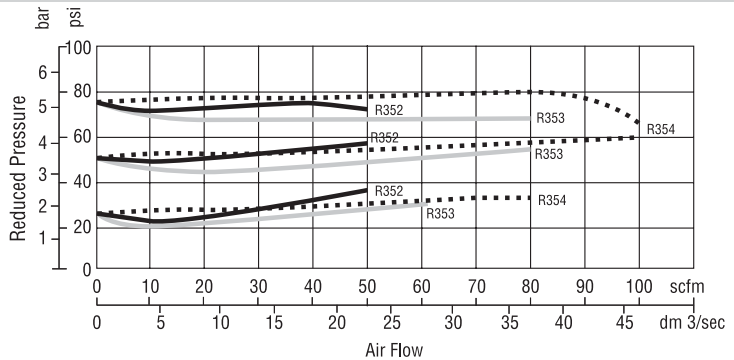
- Micro finished brass seat to ensure no reduced pressure creep
- Reinforce diaphragm for repeated accuracy
- Minimal pressure droop due to efficient aspiration
- Three position non-rising adjustment knob; push to lock, pull to adjust, detach to make tamper resistant
- Relieving style standard
- In-line or modular installation
- Easily panel mounted
- Tamper-proof cap included
- High scfm flow due to efficient aspiration

## OPTIONS

- add suffix to part number in alpha order
- G Gauge (0-160 psi) . . . . . R354G
  - H High pressure . . . . . R354H  
10 to 250 psi adjustment
  - I Instrument pressure . . . . . R354I  
3 to 20 psi adjustment
  - L Low pressure . . . . . R354L  
3 to 60 psi adjustment
  - N Non-relieving . . . . . R354N
  - P Panel mount . . . . . R354P
  - T Tee handle adjustment . . . . . R354T

- Supply Pressure**
- 250 psig
- Operating Pressure Range**
- 5 to 125 psig
- Operating Temperature Range**
- 40°F to 120°
- Gauge Port**
- 1/4" full flow

## PERFORMANCE CHARACTERISTICS



## DIMENSIONS

PIPE SIZE	MODEL NO.	MAX. FLOW SCFM	DIMENSIONS (INCHES)				WEIGHT (LBS.)	
			A	B	C	E (WIDTH)		
1/4"	R352	50	2 <sup>21</sup> / <sub>32</sub>	1 <sup>7</sup> / <sub>32</sub>	5 <sup>3</sup> / <sub>8</sub>	2 <sup>3</sup> / <sub>4</sub>	2 <sup>1</sup> / <sub>4</sub>	1.0
3/8"	R353	80	2 <sup>21</sup> / <sub>32</sub>	1 <sup>7</sup> / <sub>32</sub>	5 <sup>3</sup> / <sub>8</sub>	2 <sup>3</sup> / <sub>4</sub>	2 <sup>1</sup> / <sub>4</sub>	1.0
1/2"	R354	100	2 <sup>21</sup> / <sub>32</sub>	1 <sup>7</sup> / <sub>32</sub>	5 <sup>3</sup> / <sub>8</sub>	2 <sup>3</sup> / <sub>4</sub>	2 <sup>1</sup> / <sub>4</sub>	1.0

## MidFlow Regulators



### SPECIFICATIONS

- Body**
  - Black coated aluminum
- Bonnet**
  - Glass filled nylon
- Seals**
  - Buna N Elastomer standard
- Seat**
  - Brass
- Supply Pressure**
  - 250 psig
- Operating Pressure Range**
  - 5 to 125 psig
- Operating Temperature Range**
  - 40°F to 120°
- Gauge Port**
  - 1/4" full flow

### KITS

- Repair Kits**
  - Diaphragm kit relieving . . . . . DK35
  - Diaphragm kit Non-relieving . . . . . DK35N
  - Valve kit . . . . . VK37
- Mounting Kits see page 65**
  - Bracket kit . . . . . RBK7
  - Panel mounting kit ring only panel hole size 1 3/16" . . . . . PKR35
  - Panel mount bracket and ring . . . . . PMKR35

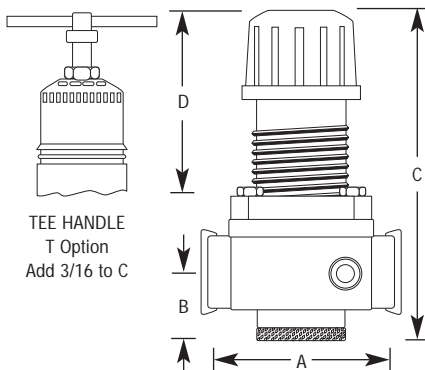
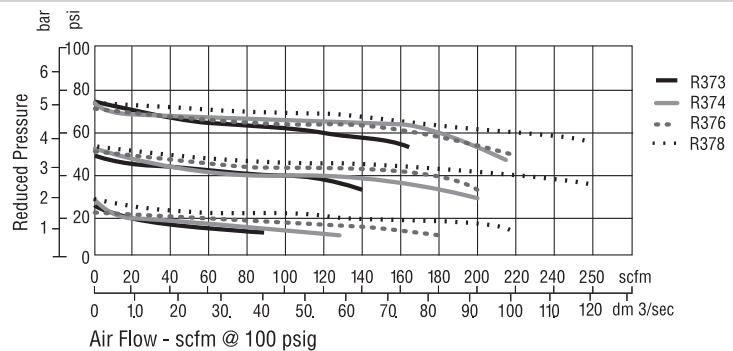
### FEATURES

- Micro finished brass seat to ensure no reduced pressure creep
- Reinforce diaphragm for repeated accuracy
- Minimal pressure droop due to efficient aspiration
- Three position non-rising adjustment knob; push to lock, pull to adjust, detach to make tamper resistant
- Relieving style standard
- Easily panel mounted
- Tamper-proof cap included
- High scfm flow due to efficient aspiration

### OPTIONS

- add suffix to part number in alpha order
- G Gauge (0-160 psi) . . . . . R373G
  - H High pressure 10 to 250 psi adjustment - *Must use T-handle option* . . . . . R373HT
  - I Instrument pressure 3 to 20 psi adjustment . . . . . R373I
  - L Low pressure 3 to 60 psi adjustment . . . . . R373L
  - N Non-relieving . . . . . R373N
  - P Panel mount . . . . . R373P
  - T Tee handle adjustment . . . . . R373T

### PERFORMANCE CHARACTERISTICS



### DIMENSIONS

PIPE SIZE	MODEL NO.	MAX. FLOW SCFM	DIMENSIONS (INCHES)				WEIGHT (LBS.)
			A	B	C	D	
3/8"	R373	170	3 7/16	1 13/32	5 7/8	2 3/4	1.3
1/2"	R374	215	3 7/16	1 13/32	5 7/8	2 3/4	1.3
3/4"	R376	220	3 7/16	1 13/32	5 7/8	2 3/4	1.3
1"	R378	250	3 7/16	1 13/32	5 7/8	2 3/4	1.3

## High Flow Regulators



### SPECIFICATIONS

- Body**
- Black coated aluminum
- Bonnet**
- Die cast aluminum, black coated
- Seals**
- Buna N Elastomer standard

- Seat**
- Brass

- Supply Pressure**
- 250 psig

- Operating Pressure Range**
- 5 to 125 psig

- Operating Temperature Range**
- 40°F to 120°F

- Gauge Ports**
- 1/4"

### KITS

- Repair Kit**
- Piston relieving . . . . . DK39
  - Piston non-relieving . . . . . DK39N
  - Valve . . . . . VK39
  - Spring (5-125 psi) . . . . . SK39
  - Spring (3-60 psi) . . . . . SK39L
  - Spring (10-200 psi) . . . . . SK39H
  - Spring cage . . . . . SC39

- Mounting Kits see page 65**
- Bracket Kit . . . . . RBK39
  - Panel mounting kit ring only . PKR35  
panel hole size 1-3/16"

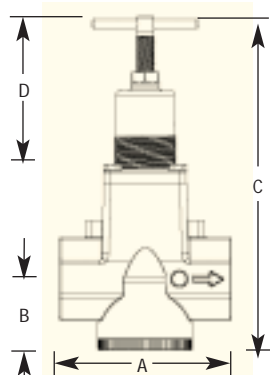
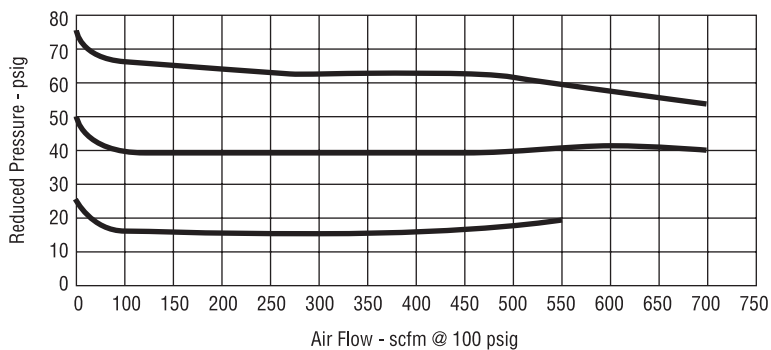
### FEATURES

- Micro finished brass seat to ensure no reduced pressure creep
- Relieving style piston standard
- High scfm flow due to efficient aspiration
- Hard epoxy corrosion protection
- Available in 1", 1-1/4", 1-1/2" NPT sizes

### OPTIONS

- add suffix to part number in alpha order
- G Gauge (0-160 psi) . . . . . R398G
  - H High pressure . . . . . R398H  
10 to 250 psi adjustment
  - L Low pressure . . . . . R398L  
3 to 60 psi adjustment
  - P Panel mount . . . . . R398P

### PERFORMANCE CHARACTERISTICS



### DIMENSIONS

PIPE SIZE	MODEL NO.	MAX. FLOW SCFM	DIMENSIONS (INCHES)				WEIGHT (LBS.)
			A	B	C	D	
1"	R398	600	4 7/8	2 1/32	9 1/2	4 1/4	3.4
1 1/4"	R3910	700	4 7/8	2 1/32	9 1/2	4 1/4	3.3
1 1/2"	R3912	700	4 7/8	2 1/32	9 1/2	4 1/4	3.2





## Adjustable High Performance Regulators

# P10

# P14

### OPTIONS

- G Gauge (0-160 psi) . . . . . P14-0G
- H High pressure . . . . . P14-04H  
P14 only: 10 to 250 psi adjustment
- L Low pressure . . . . . P14-04L  
P14 Only: 3 to 60 psi adjustment
- NB No bleed . . . . . P14-04NB
- SP Std. pressure P10 only . . . . . P10-04SP

### SPECIFICATIONS

- Body
  - Black coated aluminum
- Bonnet
  - Glass filled nylon
- Seals
  - Buna N Elastomer standard
- Diaphragm
  - Reinforced Buna N
- Valve
  - Brass and Buna N Disc
- Seat
  - Brass
- Supply Pressure
  - 250 psig
- Reduced Press Flow
  - P10: 3 to 25 psig, P14: 5 to 125 psig
- Operating Temperature Range
  - 40°F to 120°F
- Gauge Ports
  - 1/4" npt

### Bleed Rates

- Continuous 5.0 scfh or .08 scfm

### KITS

- Panel Mounting Kit
  - Panel mount kit
  - 1/16" bonnet . . . . . PMKR35
  - Panel mounting ring . . . . . PKR35

### Diaphragm Kit

- Diaphragm kit relieving  
P10 . . . . . RKP10R
- Diaphragm kit relieving  
P14-03, P14-04. . . . . RKP10R
- Diaphragm kit P14-02 . . . . . RKP14

### Mounting Kits see page 65

- Mounting bracket . . . . . RBK5
- Panel mount nut . . . . . PKR35

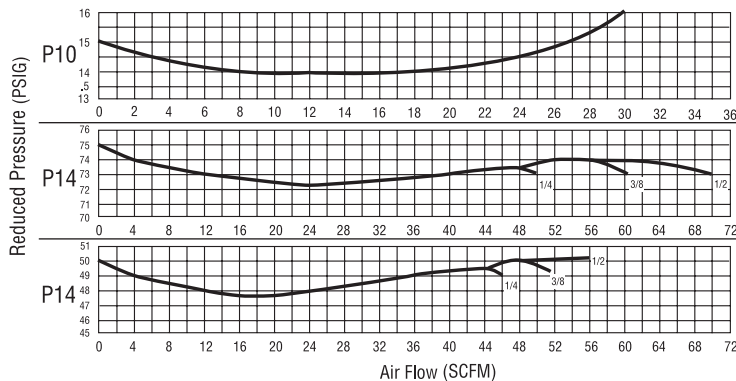
### Applications

- Pneumatic instrumentation
- Controllers and transmitters
- Valve operators, positioners
- Cylinder loading and braking pressure control
- Roll loading
- Air and force balance hoists
- Electric pneumatic proportional modules
- Precise torque control of air operated tools

### FEATURES

- Micro finished brass seat to ensure no reduced pressure creep
- Reinforce diaphragm for repeated accuracy
- Minimal pressure droop due to efficient aspiration
- Relieving style standard
- In-line or modular installation
- Easily panel mounted
- High scfm flow due to efficient aspiration
- Continuous bleed

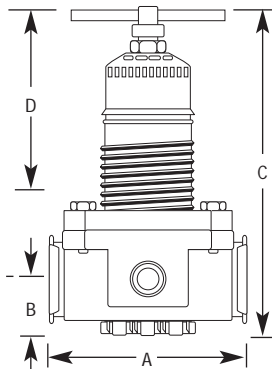
## PERFORMANCE CHARACTERISTICS



Inverse Ratio Performance – P10											
Initial Pressure	-25	-20	-15	-10	-5	0	+5	+10	+15	+20	+25
Reduced Pressure Variance	+2	+1	+1	0	0	0	0	0	-1	-2	-3

Inverse Ratio Performance – P14											
Reduced Pressure Variance	+1.5	+1.2	+1	+0.6	+0.4	0	-0.3	-0.7	-1	-1.3	-1.5



DIMENSIONS										
PIPE SIZE	MODEL NO.	MAX. FLOW SCFM*	MANUAL RANGE PSIG	DIMENSIONS (INCHES)					WEIGHT (LBS.)	
				A	B	C	D	E (WIDTH)		
1/4"	P10-02	30	3-25	2 <sup>1</sup> / <sub>32</sub>	1 <sup>13</sup> / <sub>32</sub>	6 <sup>1</sup> / <sub>4</sub>	3 <sup>3</sup> / <sub>4</sub>	2 <sup>1</sup> / <sub>4</sub>	1.1	
3/8"	P10-03	30	3-25	2 <sup>1</sup> / <sub>32</sub>	1 <sup>13</sup> / <sub>32</sub>	6 <sup>1</sup> / <sub>4</sub>	3 <sup>3</sup> / <sub>4</sub>	2 <sup>1</sup> / <sub>4</sub>	1.1	
1/4"	P14-02	40	5-125	2 <sup>1</sup> / <sub>32</sub>	1 <sup>13</sup> / <sub>32</sub>	6 <sup>1</sup> / <sub>4</sub>	3 <sup>3</sup> / <sub>4</sub>	2 <sup>1</sup> / <sub>4</sub>	1.1	
3/8"	P14-03	50	5-125	2 <sup>1</sup> / <sub>32</sub>	1 <sup>13</sup> / <sub>32</sub>	6 <sup>1</sup> / <sub>4</sub>	3 <sup>3</sup> / <sub>4</sub>	2 <sup>1</sup> / <sub>4</sub>	1.1	
1/2"	P14-04	70	5-125	2 <sup>1</sup> / <sub>32</sub>	1 <sup>13</sup> / <sub>32</sub>	6 <sup>1</sup> / <sub>4</sub>	3 <sup>3</sup> / <sub>4</sub>	2 <sup>1</sup> / <sub>4</sub>	1.1	