Compact Pilot Controlled Regulators

Genera

Dial

Pilot

Proportional

Precision





11R Pilot Controlled Regulator - Compact

- Balanced poppet provides quick response and accurate pressure regulation
- Pilot controlled regulators can be mounted "out of reach" with pilot regulator installed in a convenient location
- Solid control piston for extended life
- Two full flow 1/4" gauge ports can be used as additional outlets
- Pilot port 1/4 Inch
- 1/4", 3/8", 1/2" ports (NPT, BSPP)



Port size	Description	Part number
1/4"	Without gauge	11R115PC
1/4"	With 160 psi gauge	11R121PC
3/8"	Without gauge	11R215PC
3/8"	With 160 psi gauge	11R221PC
1/2"	Without gauge	11R315PC
1/2"	With 160 psi gauge	11R321PC

NOTE: 2.0 Dia. (51 mm) hole required for panel mounting.



Operating information

Supply pressure (max): 0 to 250 psig (0 to 17.2 bar)

Operating temperature: 32°F to 175°F (0°C to 80°C)

Flow capacity[†]:

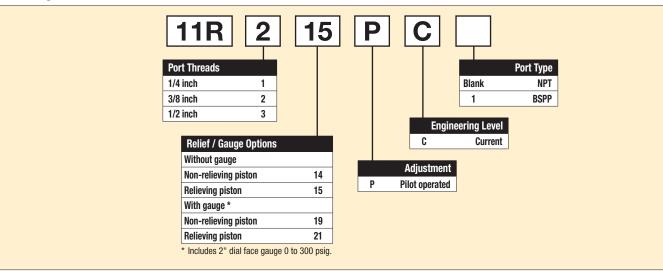
High flow 1/4" 85 scfm (40 dm³/s, ANR) 3/8" 95 scfm (44.8 dm³/s, ANR) 1/2" 95 scfm (44.8 dm³/s, ANR)

Gauge ports (2): 1/4 inch

(can be used as additional full flow 1/4 inch outlet ports)

Weight: 1.3 lb (0.53 kg)

† scfm = Standard cubic feet per minute at 100 psig inlet, 90 psig no flow secondary setting and 10 psig pressure drop.



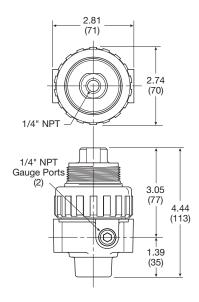




Body & pilot cap	Zinc
Piston, valve poppet, & collar	Plastic
Seals	Nitrile
Springs	Steel

Repair and Service Kits

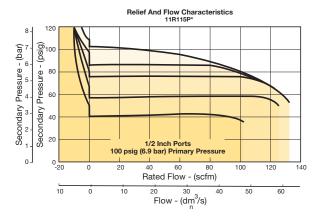
-	
Seat Insert kit	PS713P
2" dial face 60 psig (0 to 4.1 bar), gauge	K4520N14060
2" dial face 160 psig (0 to 11.0 bar), gauge	K4520N14160
2" dial face 300 psig (0 to 20.7 bar), gauge	K4520N14300
1-3/4" digital round face 160 psig (0 to 11.0 bar), gauge	K4517N14160D
160 psig (0 to 11.0 bar), gauge	K4517N14160D
Mounting bracket kit (includes panel mount nut)	PS707P
Panel mount nut, plastic	P04082
Panel mount nut, metal	P04079B
Pilot conversion kit – relieving	PS745P
Non-Relieving	PS747P
Relieving	PS749P



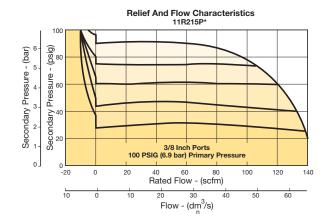
Inches (mm)

Flow Charts

1/2" Regulator



3/8" Regulator



⚠ WARNING

Product rupture can cause serious injury. Do not connect regulator to bottled gas. Do not exceed Maximum primary pressure rating.

Standard Pilot Controlled Regulators

Genera

Dial

Pilot

Proportional

Precision

Water



Regulator Products

12R Pilot Controlled Regulator - Standard

- Balanced poppet provides quick response and accurate pressure regulation
- Pilot controlled regulators can be mounted "out of reach" with pilot regulator installed in a convenient location
- Solid control piston for extended life
- Two full flow 1/4" gauge ports can be used as additional outlets
- Pilot port 1/4 Inch
- 1/2", 3/4" ports (NPT, BSPP, BSPT)



4		
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Port size	Description	Part number
1/2"	Without gauge	12R315PB
1/2"	With 160 psi gauge	12R321PB
3/4"	Without gauge	12R415PB
3/4"	With 160 psi gauge	12R421PB

NOTE: 2.0 Dia. (51 mm) hole required for panel mounting.

Operating information

Supply pressure (max): 0 to 250 psig (0 to 17.2 bar)

Operating temperature: 32°F to 175°F (0°C to 80°C)

Flow capacity[†]: High flow

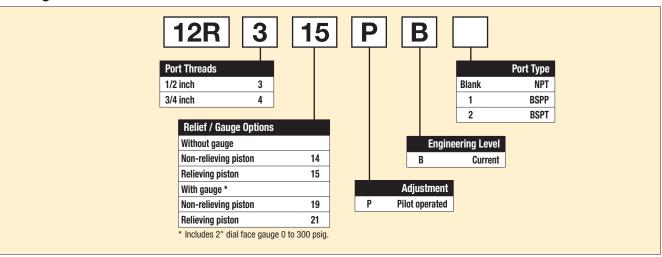
1/2" 140 scfm (66 dm³/s, ANR) 3/4" 140 scfm (66 dm³/s, ANR)

Gauge ports (2): 1/4 inc

(can be used as additional full flow 1/4 inch outlet ports)

Weight: 2.0 lb (0.91 kg)

 † scfm = Standard cubic feet per minute at 100 psig inlet, 90 psig no flow secondary setting and 10 psig pressure drop.





Body & pilot cap	Zinc
Piston, valve poppet, & collar	Plastic
Seals	Nitrile
Springs	Steel

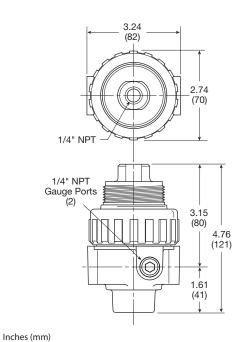
Repair and Service Kits

Seat insert kit	PS813P
2" dial face 60 psig (0 to 4.1 bar)	K4520N14060
2" dial face 160 psig (0 to 11.0 bar)	K4520N14160
2" dial face 300 psig (0 to 20.7 bar)	K4520N14300

1-3/4" digital round face 160 psig (0 to 11.0 bar)

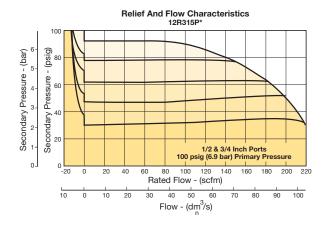
K4517N14160D

Mounting bracket kit (includes panel mount nut)	PS807P
Panel mount nut, plastic	P04082
Panel mount nut, metal	P04079B
Pilot conversion kit – relieving	PS745P
Non-relieving	PS847P
Relieving	PS849P



Flow Charts

1/2 and 3/4" Regulator



⚠ WARNING

Product rupture can cause serious injury. Do not connect regulator to bottled gas. Do not exceed Maximum primary pressure rating.





P3NR Pilot Controlled Regulator - Hi-Flow

- Port blocks (PB) available to provide 1-1/2" port extension to 1" ported bodies
- Self relieving feature plus balanced poppet provides quick response and accurate pressure regulation
- · Solid control piston for extended life
- 3/4", 1" 1-1/2" ports (NPT, BSPP)



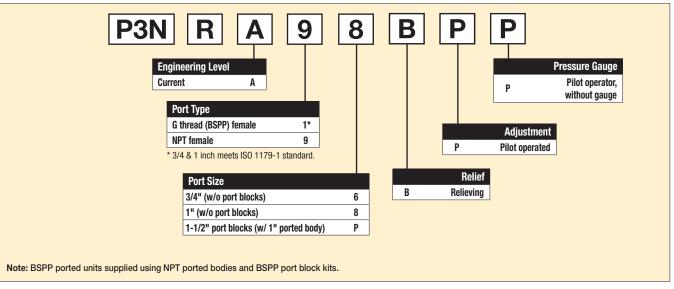


Port size	Description	Part number
3/4"	Without gauge	P3NRA96BPP
1"	Without gauge	P3NRA98BPP
1-1/2"#	Without gauge	P3NRA9PBPP

^{* 1&}quot; port body with 1-1/2" port block.

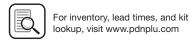
Operating information			
Supply pressure (max):		250 psig (17.2 bar)	
Operating temperature:		32°F to 175°F (0°C to 80°C)	
Flow capacity [†] : High flow	3/4" 1" 1-1/2"	300 scfm (141.6 dm³/s, ANR) 300 scfm (141.6 dm³/s, ANR) 350 scfm (165.2 dm³/s, ANR)	
Gauge ports (2):		1/4 inch	
Weight:	3/4", 1" 1-1/2" #	3.3 lb (1.5 kg) 4.4 lb (2.0 kg)	
† scfm = Standard cubic feet per minute at 100 psig inlet, 90 psig no flow secondary			

setting and 10 psig pressure drop.









^{1&}quot; port body with 1-1/2 port block

Air Preparation Products **Regulator Products**

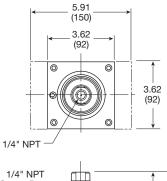
Material Specifications

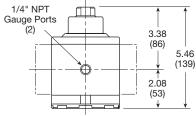
Adjusting stem	Steel
Body	Aluminum
Bonnet	Aluminum
Piston	Plastic
Poppet assembly	Brass
Seals	Nitrile
Springs – poppet	Steel

Repair and Service Kits

2" dial face 60 psig (0 to 4.1 bar), gauge	K4520N14060
2" dial face 160 psig (0 to 11.0 bar), gauge	K4520N14160
2" dial face 300 psig (0 to 20.7 bar), gauge	K4520N14300
1-3/4" digital round face 160 psig (0 70 11.0 bar), gauge	K4517N14160D
Mounting bracket kit*	P3NKA00MW
Relieving	P3NKA00PD

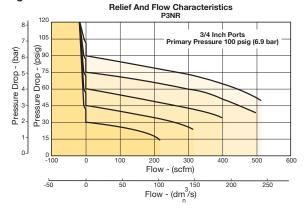
^{*} If 1-1/2 BSPP E02 fittings are required, use P3NKA0BMW.



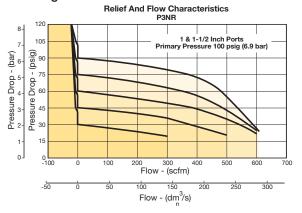


Flow Charts

3/4" Regulator



1" & 1-1/2" Regulator



WARNING

Product rupture can cause serious injury. Do not connect regulator to bottled gas. Do not exceed Maximum primary pressure rating.

Inches (mm)

R119 Regulators

Genera

Dial

Pilot

Proportional

Precision





Regulator Products

R119 - Pilot Operated Regulators

- Adapted for control by a remote or distant small pilot regulator. Ideal for maximum capacity requirements in applications where units are not readily accessible
- High flow performance featuring rugged design for the most demanding applications
- Ideal for those installations calling for constant pressure with wide variation in flow
- Diaphragm operated design with balanced poppet and constant bleed pilot for quick and accurate regulation.
- Secondary aspiration plus balanced poppet provides quick response and accurate pressure regulation
- Reverse flow available
- 1/4", 3/8", 1/2" ports (NPT, BSPP)



Port size	Description (0-125 psig reduced pressure)	Part number
1/4"	Without gauge, relieving, NPT	R119-02J/M2
3/8"	Without gauge, relieving, NPT	R119-03J/M2
1/2"	Without gauge, relieving, NPT	R119-04J/M2



Operating information

Supply pressure (max): 300 psig (0 to 20.7 bar)

Air consumption: Constant bleed from air pilot chamber: approx. 0.17 scfm

(10 scfh)

Operating temperature: 40°F to 125°F (4.4°C to 52°C)

Pilot pressure: 1/4", 3/8" thread - 1/8"
1/2" thread - 1/4"

Reduced pressure range: Adjustable to within 5 to 7 psig

(0.34 to 0.48 bar) of supply

pressure

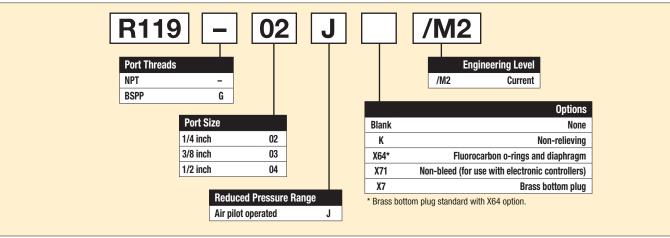
Flow capacity[†]:

High flow 1/4" 100 scfm (47.2 dm³/s, ANR) 3/8" 110 scfm (51.9 dm³/s, ANR) 1/2" 150 scfm (70.8 dm³/s, ANR)

Gauge ports (2): 1/4 inch

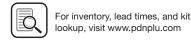
Weight: 1/4" 1.6 lb (0.73 kg) 3/8" 1.6 lb (0.73 kg) 1/2" 2.6 lb (1.18 kg)

 † scfm = Standard cubic feet per minute at 100 psig inlet, 75 psig no flow secondary setting and 20 psig pressure drop.









R119 Regulators

Material Specifications

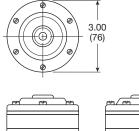
Body, ring, top plate	Zinc
Bottom plug	Nylon
Innervalve	Brass
Seals	Buna N

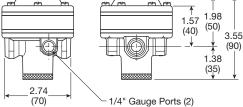
Repair and Service Kits

ricpair and octatoc rate	
2" dial face 60 psig (0 to 4.1 bar), gauge	K4520N14060
2" dial face 160 psig (0 to 11.0 bar), gauge	K4520N14160
2" dial face 300 psig (0 to 20.7 bar), gauge	K4520N14300
1-3/4" digital round face 160 psig (0 to 11.0 bar), gauge	K4517N14160D
Non-relieving diaphragm, valve assembly (1/2")	RK118X20A
Non-relieving diaphragm, valve assembly (1/4", 3/8")	RK118X20Y
Relieving diaphragm, valve assembly (1/2")	RK119X20A
Relieving diaphragm, valve assembly (1/4", 3/8")	RK119X20Y
E 6 1 1 1 1 1 1 1 1 1 6 6 6 6 6 6 6 6 6	

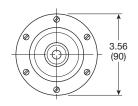
For fluorocarbon repair kits, add X64 to kit number suffix. For non-bleed pilot repair kits, add X71 to kit number suffix.

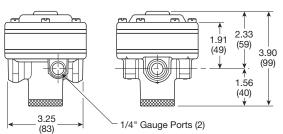
R119-02J, R119-03J





R119-04J





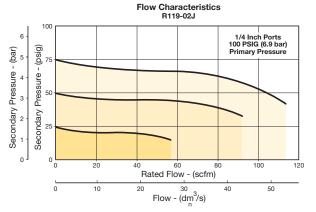
Inches (mm)

Air Preparation Products

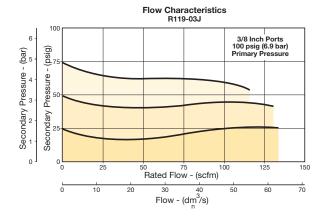
Regulator Products

Flow Charts

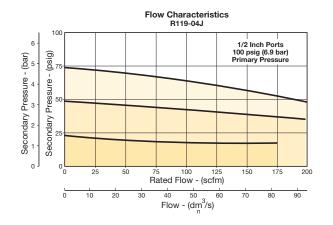
1/4" Regulator



3/8" Regulator



1/2" Regulator



WARNING

Product rupture can cause serious injury. Do not connect regulator to bottled gas. Do not exceed Maximum primary pressure rating.





Hi-Flow Regulators

Genera

Dial

Pilot

Proportional

Precision

Water



Products

R119 Pilot Operated Regulators - Hi-Flow

- Adapted for control by a remote or distant small pilot regulator. Ideal for maximum capacity requirements in applications where units are not readily accessible
- High flow performance featuring rugged design for the most demanding applications
- Ideal for those installations calling for constant pressure with wide variation in flow
- Diaphragm operated design with balanced poppet and constant bleed pilot for quick and accurate regulation
- Secondary aspiration plus balanced poppet provides quick response and accurate pressure regulation
- Reverse flow version available
- 3/4", 1", 1-1/2" ports (NPT, BSPP)



Without gauge, relieving, NPT	R119-06J/M2
Without gauge, relieving, NPT	R119-08J/M2
Without gauge, relieving, NPT	R119-12J/M2
	Without gauge, relieving, NPT



Operating information

Supply pressure (max): 300 psig (0 to 20.7 bar)

Air consumption: Constant bleed from air pilot chamber: approx. 0.17 scfm

(10 scfh)

Operating temperature: 40°F to 125°F (4.4°C to 52°C)

Reduced pressure range: Adjustable to within 5 to 7 psig

(0.34 to 0.48 bar) of supply

pressure

Flow capacity[†]:

Weight:

High flow

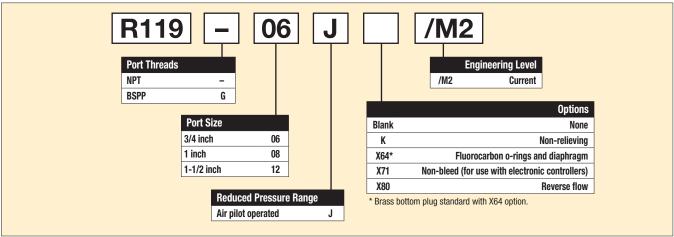
3/4" 300 scfm (141.6 dm³/s, ANR) 1" 300 scfm (141.6 dm³/s, ANR)

1-1/2" 500 scfm (236 dm³/s, ANR)

Gauge ports (2): 1/4 inch

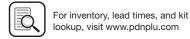
3/4" 5.2 lb (2.36 kg) 1" 5.2 lb (2.36 kg) 1-1/2" 5.6 lb (2.54 kg)

† scfm = Standard cubic feet per minute at 100 psig inlet, 75 psig no flow secondary setting and 20 psig pressure drop.









Hi-Flow Regulators

Material Specifications

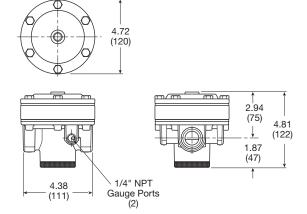
-	
Body, ring, top plate	Zinc
Bottom plug, innervalve	Brass
Seals	Buna N

Repair and Service Kits

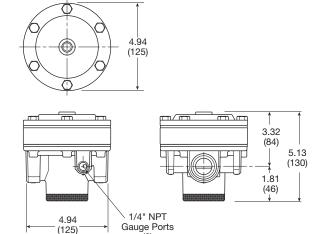
•	
2" dial face 60 psig (0 to 4.1 bar), gauge	K4520N14060
2" dial face 160 psig (0 to 11.0 bar), gauge	K4520N14160
2" dial face 300 psig (0 to 20.7 bar), gauge	K4520N14300
1-3/4" digital round face 160 psig (0 to 11.0 bar), gauge	K4517N14160D
Non-relieving diaphragm, valve assembly (3/4", 1")	RK118X20B
Non-relieving diaphragm, valve assembly (1-1/4", 1-1/2")	RK118X20D
Relieving diaphragm, valve assembly (3/4", 1")	RK119X20B
Relieving diaphragm, valve assembly (1-1/4", 1-1/2")	RK119X20D

For Fluorocarbon Repair Kits, add X64 to Kit Number suffix.

R119-06J, R119-08J



R119-12J

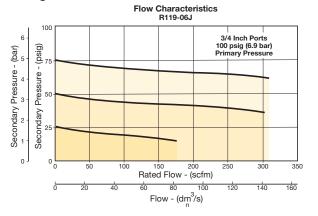


Air Preparation Products

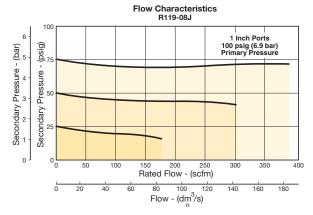
Regulator Products

Flow Charts

3/4" Regulator

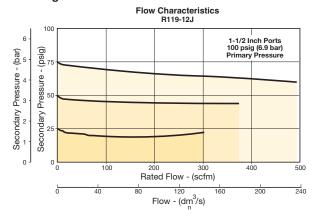


1" Regulator



1-1/2" Regulator

K59



WARNING

Product rupture can cause serious injury. Do not connect regulator to bottled gas. Do not exceed Maximum primary pressure rating.

Inches (mm)





Hi-Flow Regulators

Genera

Dial

Pilot

Proportional

Precision

Water



Regulator Products

R119 Pilot Operated Regulators - Hi-Flow

- Adapted for control by a remote or distant small pilot regulator. Ideal for maximum capacity requirements in applications where units are not readily accessible
- High flow performance featuring rugged design for the most demanding applications
- Ideal for those installations calling for constant pressure with wide variation in flow
- Piston operated design with balanced poppet and dual constant bleed for quick and accurate regulation
- 2", 2-1/2" ports (NPT, BSPP)





Port size	Description (0-125 psig reduced pressure)	Part number
2"	Without gauge, relieving, NPT	R119-16J
2-1/2"	Without gauge, relieving, NPT	R119-20J

Operating information

Supply pressure (max): 300 psig (0 to 20.7 bar)

Air consumption:

Constant bleed from Air pilot chamber: approx.

0.17 scfm (10 scfh)

Reduced pressure: approx.

0.17 scfm (10 scfh)

Operating temperature: 40°F to 120°F (4.4°C to 48.9°C)

Reduced pressure range: Adjustable to within 5 to 7 psig (0.34 to 0.48 bar) of supply

pressure

Flow capacity[†]:

High flow 2" 1800 scfm (850 dm³/s, ANR) 2-1/2" 1800 scfm (850 dm³/s, ANR)

Gauge ports (2):

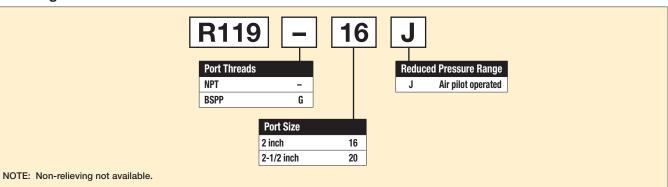
Can be used for full flow
High pressure outlet for pilot

Weight:

1/4 inch
1/4 inch
1/4 inch
1/5 lb (6.8 kg)

† scfm = Standard cubic feet per minute at 100 psig inlet, 75 psig no flow secondary setting and 20 psig pressure drop.

Ordering information:









Pilot

Hi-Flow Regulators

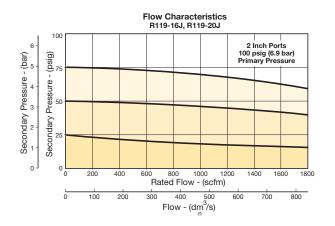
Material Specifications

Body, piston	Aluminum
Seals	Buna N
Innervalve stainless	Brass &

Repair and Service Kits

2" dial face 60 psig (0 to 4.1 bar), gauge	K4520N14060
2" dial face 160 psig (0 to 11.0 bar), gauge	K4520N14160
2" dial face 300 psig (0 to 20.7 bar), gauge	K4520N14300
1-3/4" digital round face 160 psig (0 to 11.0 bar), gauge	K4517N14160D
Piston type regulation (2", 2-1/2")	RK119G

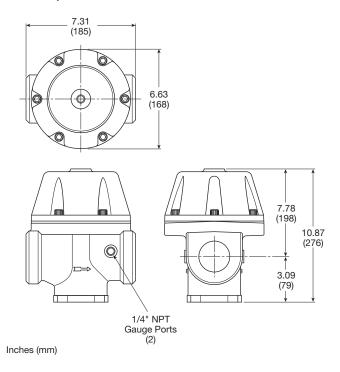
Flow Charts



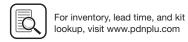
MARNING

Product rupture can cause serious injury. Do not connect regulator to bottled gas. Do not exceed Maximum primary pressure rating.

R119-16J, R119-20J







Pilot Operated Regulators

General

Dial

Proportional

Pilot

Precision

Water



P3Y Pilot Operated Regulator

- Integral 3/4" or 1" ports (BSPP & NPT)
- Pilot controlled regulators can be mounted "out of reach" with pilot regulator installed in a convenient location
- Constant pilot bleed control for accurate pressure control
- Balanced poppet provides quick response
- · High flow





Port size	Description	Part number
3/4"	Pilot operated regulator	P3YRA96BPPN
1"	Pilot operated regulator	P3YRA98BPPN

Operating information

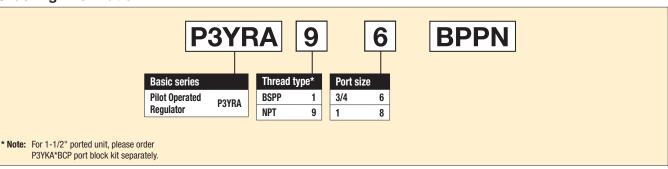
Supply pressure (max): 254 psig (17.5 bar)

Operating temperature: -40°F to 140°F (-40°C to 60°C)
Flow capacity†: 3/4" 550 scfm (259.6 dm³/s, ANR)
1" 550 scfm (259.6 dm³/s, ANR)

Fluid: Compressed air Weight: 2.6 lb (1.2 kg)

 † Inlet pressure 145 psig (10 bar) inlet pressure, 91.4 psig (6.3 bar) set pressure and 7.3 psig (0.5 bar) pressure drop.

Ordering information





Pilot

Precision

Matarial specifications

Pilot Operated Regulators

Material specifications		
Body	Aluminium	
Body cover	ABS	
Value	Drage / NDI	

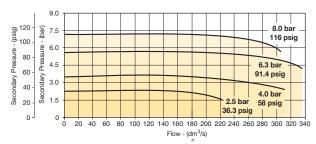
Valve	Brass / NBR composite
Pilot valve booster	Aluminum
Seals	Nitrile NBR
Screws	Zinc plated steel

⚠ WARNING

Product rupture can cause serious injury. Do not connect regulator to bottled gas. Do not exceed Maximum primary pressure rating.

Flow characteristics

3/4" and 1" Pilot Regulator



0 40 80 120 160 200 240 280 320 360 400 440 480 520 560 600 640 680 720

