



Miniature Regulators Distributed by
PROPORTION *AIR*



PRESET • AFFORDABLE • TAMPER-PROOF



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CartReg - Max Inlet Pressure: 174 psig (12 bar)

A preset and tamper-proof pneumatic regulator for blow guns. Compact, inline and non-adjustable. CartReg can easily be threaded into any 1/4" blow gun and is an economical and discreet means to maintaining the ideal pressure requirements and reducing overall noise (DBA) exposure. The preset miniature regulator is designed to meet OSHA and other safety agency requirements for 2 bar/30 psig maximum pressure for pneumatic air guns.



- Protects personnel, machinery & plant by avoiding pressure surges
- Ensures optimal air tool efficiency by supplying a constant pre-set pressure
- Prevents compressed air waste & limits excessive compressed air consumption
- Reduces energy consumption
- Lightweight, compact size and compatible with all pneumatic systems

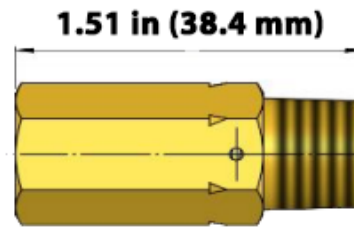
Technical Specifications	
Max Inlet Pressure	174 psig (12 bar)
Outlet pressures	30, 45, 60, 90, 120 PSI; 2, 4 bar
Thread Connection	Female/Male - 1/4" NPT & BSP
Flows	12.36 SCFM (350 l/min)
Temperature Range	-4° to 140° F (-20° to 60° C)
Weight	1/4" BSP - 29g 1/4" NPT - 32g
Materials	Housing: Brass Other materials: Nitrile, rubber, stainless steel

*Other sizes available

Application Examples

- Pneumatic air gun
- Spray gun
- Workshop air lines
- Pneumatic tools

Dimensions



0.59 in (15 mm)



F/M

Max Inlet Pressure: 174 psig (12 bar)

THREAD CONNECTION	MAX REGULATED OUTPUT PRESSURE	MAX FLOW	TOLERANCES	CARTREG PART NUMBER
1/4" NPT, F/M	29 psig	12.5 scfm	± 4.5 psig (Pe 87 psig)	PCR233FS1229
1/4" NPT, F/M	30 psig	12.5 scfm	± 8.7 psig (Pe 87 psig)	PCR233FS1230
1/4" BSP, F/M	2 bar	350 lpm	± 0.6 bar (Pe 6 bar)	PCR233F0220
1/4" NPT, F/M	45 psig	12.5 scfm	± 10.1 psig (Pe 87 psig)	PCR233FS1245
1/4" NPT, F/M	60 psig	12.5 scfm	± 11.6 psig (Pe 87 psig)	PCR233FS1260
1/4" BSP, F/M	4 bar	350 lpm	± 0.8 bar (Pe 6 bar)	PCR233F0240
1/4" NPT, F/M	90 psig	12.5 scfm	± 14.5 psig (Pe 145 psig)	PCR233FS1290
1/4" NPT, F/M	120 psig	12.5 scfm	± 17.5 psig (Pe 125 psig)	PCR233FS12120

SaveAir - Max Inlet Pressure: 260 psig (18 bar)

An independent diaphragm regulator that supplies a constant and exact outlet pressure regardless of input pressure fluctuations. Can be installed in any compressed air system. The SaveAir prevents dynamic pressure waste that arises when the pressure and flow (at the process point) are unnecessarily higher than those specified by the original manufacturer to achieve the desired function.

- Supplies compressed air systems with pre-set pressure, No gauge needed
- Saves energy by preventing compressed air waste (also known as dynamic pressure waste)
- Reliable, small and compact design that is easy to install and affordable to purchase
- Tamper-proof
- Increases device service life

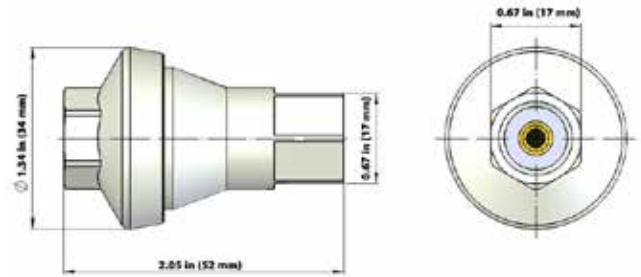


Technical Specifications	
Max Inlet Pressure	260 PSIG (18 bar)
Outlet Pressures (preset)	15 to 135 PSIG; 1.5 to 4 bar*
Thread Connection	1/4" NPT, 1/4 BSP
Flows	14 SCFM
Temperature Range	32° to 140° F (0° to 60° C)
Materials	Housing: Zinc Other materials: Nitrile rubber, brass, stainless steel, PPH
Weight	80 grams/2.82 oz.

*Other sizes available

Application Examples	
• Pneumatic supply lines	• Pump, flow stabilization
• Automotive	• Workshop equipment
• Pneumatic power tools	

Dimensions



Max Inlet Pressure: 260 psig (18 bar)

THREAD CONNECTION	MAX REGULATED OUTPUT PRESSURE	TOLERANCES	MAX FLOW (at 174 psig; Δp 7 psig)	SAVEAIR PART NUMBER
1/4" NPT	15 psig	±4.35 psig	14.2 scfm	PIR231AS1215
1/4" NPT	23 psig	±4.35 psig	14.2 scfm	PIR231AS1223
1/4" NPT	30 psig	±4.35 psig	21.3 scfm	PIR231AS1230
1/4" NPT	35 psig	±4.35 psig	21.3 scfm	PIR231AS1235
1/4" NPT	45 psig	±4.35 psig	24.7 scfm	PIR231AS1245
1/4" NPT	50 psig	±10%	24.7 scfm	PIR231AS1250
1/4" NPT	60 psig	±10%	24.7 scfm	PIR231AS1255
1/4" NPT	65 psig	±10%	24.7 scfm	PIR231AS1265
1/4" NPT	75 psig	±10%	24.7 scfm	PIR231AS1275
1/4" NPT	80 psig	±10%	24.7 scfm	PIR231AS1280
1/4" NPT	90 psig	±10%	28.3 scfm	PIR231AS1290
1/4" NPT	95 psig	±10%	28.3 scfm	PIR231AS1295
1/4" NPT	100 psig	±10%	28.3 scfm	PIR231AS12100
1/4" NPT	110 psig	±10%	28.3 scfm	PIR231AS12110
1/4" NPT	120 psig	±10%	28.3 scfm	PIR231AS12120
1/4" NPT	135 psig	±10%	28.3 scfm	PIR231AS12135
1/4" BSP	1.5 bar	±0.3 bar	14.2 scfm	PIR231A0215
1/4" BSP	3.5 bar	±0.3 bar	24.7 scfm	PIR231A0235
1/4" BSP	4.0 bar	±0.3 bar	24.7 scfm	PIR231A0240

ToolReg - Max Inlet Pressure: 363 psig (25 bar)

The ToolReg regulator is an independent piston regulator that can be mounted on any pneumatic tool or installed in every compressed air system. It supplies a constant, exact outlet pressure regardless of the inlet pressure. The pressure is factory-set and cannot be changed. The ToolReg prevents "dynamic pressure waste." This arises when the pressure and flow at the withdrawal point are unnecessarily higher than those specified by the manufacturer to achieve the desired function. Dynamic pressure waste is extremely costly, and a waste of energy that may be found throughout industry.

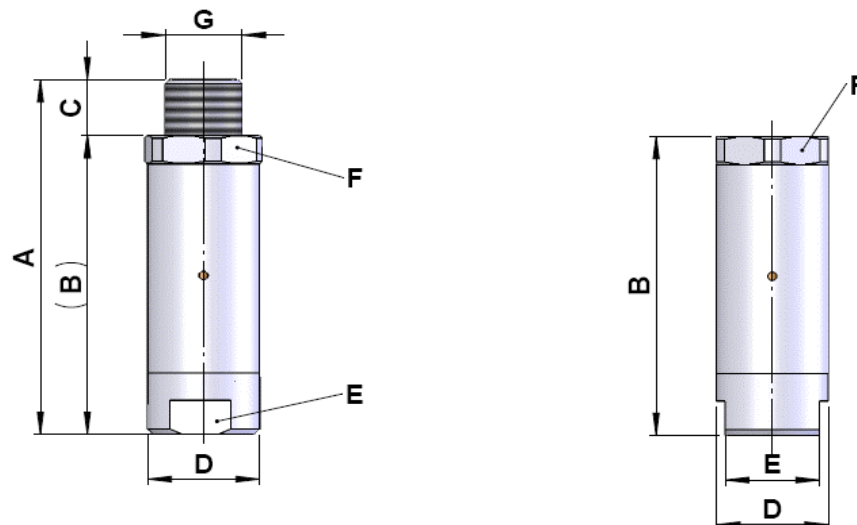
- Protects personnel, machinery & plant by avoiding pressure surges
- Ensures optimal air tool efficiency by supplying a constant pre-set pressure
- Prevents compressed air waste & limits excessive compressed air consumption
- Reduces energy consumption
- Lightweight, compact size and compatible with all pneumatic systems

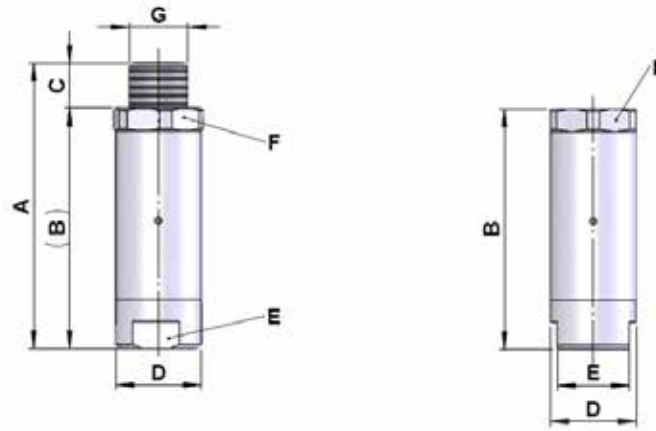


Technical Specifications	
Max Inlet Pressure	25 bar / 365 psig
Outlet Pressures	30, 45, 60, 90, 105, 120 PSI
Thread Connection	Female/Female, Female/Male 1/4" - 3/4"
Max Flow	26-162 scfm
Temperature Range	0°C to 60°C (32°F to 140°F)
Materials	Housing: Aluminum Spring: Stainless Steel O-Ring: Nitrile Rubber Valve Seat: PPH Spindle: Nickel Plated Brass
Weight and Dimensions	See table

Application Examples	
• Pneumatic impact wrench	• Lifting bags
• Pipe plugs	• Pneumatic doors
• Pick and place units	• Workshop air lines
• Nail guns	• Jackhammers
• Pneumatic power tools	

Dimensions - See next page for values





Max Inlet Pressure: 363 psig (25 bar)

THREAD CONNECTION	MAX REGULATED OUTPUT PRESSURE	MAX FLOW <small>Pe = 180 PSI, Δ7.5 psi</small>	TOLERANCES	WEIGHT	DIMENSIONS (in)						TOOLREG PART NUMBER
					A	B	C	D	E	F	
1/4" F/F, NPT	30 psig	17 scfm	± 4.35 psig	1.16 oz/33 g		2.32		0.75	0.63	0.75	PTR232AS1230
1/4" F/M, NPT	30 psig	17 scfm	± 4.35 psig	1.41 oz/40 g	2.72	2.32	0.40	0.75	0.63	0.75	PTR232FS1230
1/4" F/F, NPT	45 psig	19 scfm	± 4.35 psig	1.16 oz/33 g		2.32		0.75	0.63	0.75	PTR232AS1245
1/4" F/M, NPT	45 psig	19 scfm	± 4.35 psig	1.41 oz/40 g	2.72	2.32	0.40	0.75	0.63	0.75	PTR232FS1245
1/4" F/F, NPT	60 psig	21 scfm	± 6 psig	1.16 oz/33 g		2.32		0.75	0.63	0.75	PTR232AS1260
1/4" F/M, NPT	60 psig	21 scfm	± 6 psig	1.41 oz/40 g	2.72	2.32	0.40	0.75	0.63	0.75	PTR232FS1260
1/4" F/F, NPT	75 psig	23 scfm	± 7.5 psig	1.16 oz/33 g		2.32		0.75	0.63	0.75	PTR232AS1275
1/4" F/M, NPT	75 psig	23 scfm	± 7.5 psig	1.41 oz/40 g	2.72	2.32	0.40	0.75	0.63	0.75	PTR232FS1275
1/4" F/F, NPT	90 psig	25 scfm	± 9 psig	1.16 oz/33 g		2.32		0.75	0.63	0.75	PTR232AS1290
1/4" F/M, NPT	90 psig	25 scfm	± 9 psig	1.41 oz/40 g	2.72	2.32	0.40	0.75	0.63	0.75	PTR232FS1290
1/4" F/F, NPT	105 psig	25 scfm	± 10 psig	1.16 oz/33 g		2.32		0.75	0.63	0.75	PTR232AS12105
1/4" F/M, NPT	105 psig	25 scfm	± 10 psig	1.41 oz/40 g	2.72	2.32	0.40	0.75	0.63	0.75	PTR232FS12105
1/4" F/F, NPT	120 psig	28 scfm	± 12 psig	1.16 oz/33 g		2.32		0.75	0.63	0.75	PTR232AS12120
1/4" F/M, NPT	120 psig	28 scfm	± 12 psig	1.41 oz/40 g	2.72	2.32	0.40	0.75	0.63	0.75	PTR232FS12120
3/8" F/F, NPT	30 psig	49 scfm	± 4.35 psig	2.12 oz/60 g		2.48		0.98	0.87	0.98	PTR232AS1330
3/8" F/F, NPT	45 psig	49 scfm	± 4.35 psig	2.12 oz/60 g		2.48		0.98	0.87	0.98	PTR232AS1345
3/8" F/F, NPT	60 psig	63 scfm	± 6 psig	2.12 oz/60 g		2.48		0.98	0.87	0.98	PTR232AS1360
3/8" F/F, NPT	75 psig	63 scfm	± 7.5 psig	2.12 oz/60 g		2.48		0.98	0.87	0.98	PTR232AS1375
3/8" F/F, NPT	90 psig	77 scfm	± 9 psig	2.12 oz/60 g		2.48		0.98	0.87	0.98	PTR232AS1390
3/8" F/M, NPT	90 psig	77 scfm	± 9 psig	2.12 oz/60 g	2.95	2.48	0.47	0.98	0.87	0.98	PTR232FS1390
3/8" F/F, NPT	105 psig	77 scfm	± 10 psig	2.12 oz/60 g		2.48		0.98	0.87	0.98	PTR232AS13105
3/8" F/F, NPT	120 psig	92 scfm	± 12 psig	2.12 oz/60 g		2.48		0.98	0.87	0.98	PTR232AS13120
1/2" F/F, NPT	30 psig	49 scfm	± 4.35 psig	3.17 oz/90 g		2.68		1.18	1.06	1.18	PTR232AS1430
1/2" F/M, NPT	30 psig	49 scfm	± 4.35 psig	3.17 oz/90 g	3.27	2.68	0.20	1.18	1.06	1.18	PTR232FS1430
1/2" F/F, NPT	45 psig	49 scfm	± 4.35 psig	3.17 oz/90 g		2.68		1.18	1.06	1.18	PTR232AS1445
1/2" F/M, NPT	45 psig	49 scfm	± 4.35 psig	3.17 oz/90 g	3.27	2.68	0.20	1.18	1.06	1.18	PTR232FS1445
1/2" F/F, NPT	60 psig	63 scfm	± 6 psig	3.17 oz/90 g		2.68		1.18	1.06	1.18	PTR232AS1460
1/2" F/M, NPT	60 psig	63 scfm	± 6 psig	3.17 oz/90 g	3.27	2.68	0.20	1.18	1.06	1.18	PTR232FS1460
1/2" F/F, NPT	75 psig	63 scfm	± 7.5 psig	3.17 oz/90 g		2.68		1.18	1.06	1.18	PTR232AS1475
1/2" F/F, NPT	90 psig	77 scfm	± 9 psig	3.17 oz/90 g		2.68		1.18	1.06	1.18	PTR232AS1490
1/2" F/M, NPT	90 psig	77 scfm	± 9 psig	3.17 oz/90 g	3.27	2.68	0.20	1.18	1.06	1.18	PTR232FS1490
1/2" F/F, NPT	105 psig	77 scfm	± 10 psig	3.17 oz/90 g		2.68		1.18	1.06	1.18	PTR232AS14105
1/2" F/F, NPT	120 psig	92 scfm	± 12 psig	3.17 oz/90 g		2.68		1.18	1.06	1.18	PTR232AS14120
3/4" F/F, NPT	30 psig	88 scfm	± 4.35 psig	9.88 oz/280 g		4		1.58	1.34	1.58	PTR232AS1530
3/4" F/F, NPT	60 psig	113 scfm	± 6 psig	9.88 oz/280 g		4		1.58	1.34	1.58	PTR232AS1560
3/4" F/F, NPT	90 psig	138 scfm	± 9 psig	9.88 oz/280 g		4		1.58	1.34	1.58	PTR232AS1590
3/4" F/F, NPT	120 psig	162 scfm	± 12 psig	9.88 oz/280 g		4		1.58	1.34	1.58	PTR232AS15120

OxyReg - Max Inlet Pressure: 260 psig (18 bar)

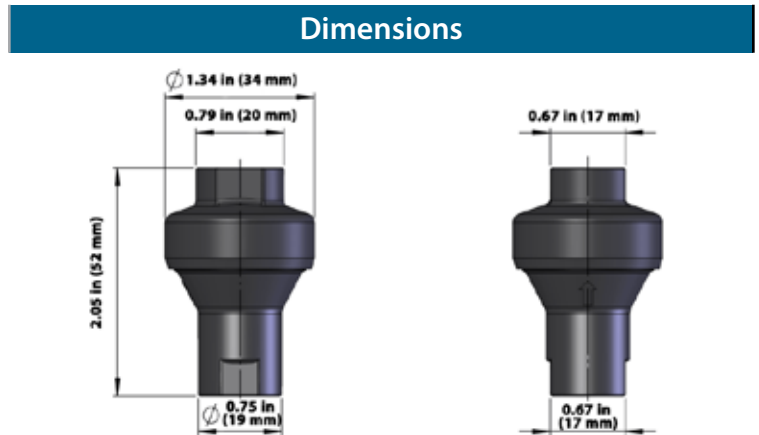
A preset, inline and non-adjustable regulator for oxygen, nitrogen and other inert gases. OxyReg ensures a constant output of pressure. OxyReg is made the FDA and NSF-certified material Grivory GV-5 FWA and has stainless steel internal components - ideal for applications in the medical industry.

- Reliable, lightweight and service free - no adjustment needed
- Reduces oxygen waste, which reduces energy use and cost
- Protects equipment by reducing risk of overpressurization
- Competitively priced, tamper-proof and factory preset pressure



Technical Specifications	
Max Inlet Pressure	260 PSIG (18 bar)
Outlet Pressures	15-120 PSIG (see table below)
Max Flow	400-800 L/min (14.2-28.3 SCFM) (see table below)
Size	1/4"
Thread Connection	NPT (BSP available by request)
Temperature Range	32° to 140° F (0° to 60° C)
Materials	Housing: Grivory GV-5 FWA Spindle: DIN 1.4404/AISI 316L Diaphragm: FPM O-Ring: FPM Spring: DIN 1.4310/AISI 301 Valve Seat: PPH/Santoprene
Weight	40 grams/1.41 oz.

Application Examples	
• Anesthetic equipment	• Respiratory equipment
• Food and drink preservation equipment	• Nitrogen filling system



Max Inlet Pressure: 260 psig (18 bar)

THREAD CONNECTION	MAX REGULATED OUTPUT PRESSURE	MAX FLOW (L/min - SCFM)	TOLERANCES	OXYREG PART NUMBER
1/4" NPT	15 psig	400 - 14.2	±4.35 psig	POR234KM1215
1/4" NPT	23 psig	400 - 14.2	±4.35 psig	POR234KM1223
1/4" NPT	30 psig	600 - 21.3	±4.35 psig	POR234KM1230
1/4" NPT	35 psig	600 - 21.3	±4.35 psig	POR234KM1235
1/4" NPT	45 psig	700 - 24.7	±4.35 psig	POR234KM1245
1/4" NPT	50 psig	700 - 24.7	±10%	POR234KM1250
1/4" NPT	60 psig	700 - 24.7	±10%	POR234KM1260
1/4" NPT	65 psig	700 - 24.7	±10%	POR234KM1265
1/4" NPT	75 psig	700 - 24.7	±10%	POR234KM1275
1/4" NPT	80 psig	700 - 24.7	±10%	POR234KM1280
1/4" NPT	90 psig	800 - 28.3	±10%	POR234KM1290
1/4" NPT	95 psig	800 - 28.3	±10%	POR234KM1295
1/4" NPT	100 psig	800 - 28.3	±10%	POR234KM12100
1/4" NPT	120 psig	800 - 28.3	±10%	POR234KM12120

Fluid Regulators | FluidReg - Max Inlet Pressure: 145 psig (10 bar)

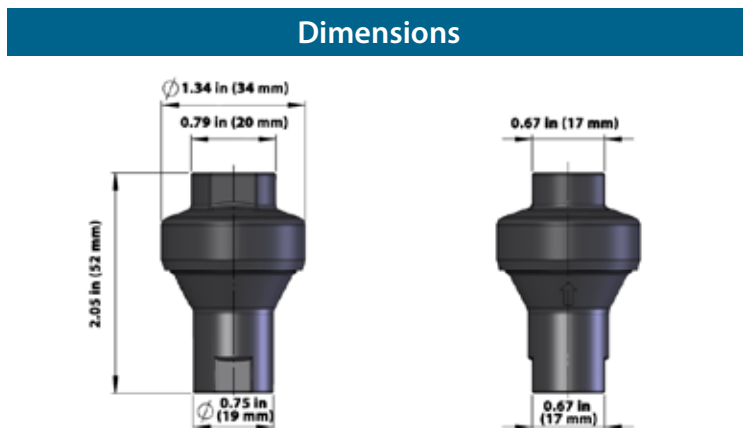
The FluidReg is an independent membrane regulator that can be installed in nearly any fluid or compressed air pneumatic system. It supplies a constant, exact outlet pressure regardless of the input pressure. The pressure is factory-set and cannot be changed. This ensures that no one can alter the specified pressure. It is well known that the pressure of a water or fluid line normally is too high, fluctuates, and varies according to the height of the building. In that case, the in-line FluidReg protects all equipment and components placed after it, so that they will only receive the correct pressure. This is particularly important for all machinery/plants for/or with dosing of liquids, as this will prevent stops in production. Furthermore, if the FluidReg is combined with a sprinkler nozzle, it creates an ideal method for cooling/cleaning with water spray or fog.



- Factory preset pressure & tamperproof
- Reduces consumption
- Service free - no adjustments needed
- Small footprint & lightweight
- Easy to mount in any water supply system

Technical Specifications	
Max Inlet Pressure	Water: 10 bar/145 psig Other gases: 18 bar/260 psig
Size (output pressure)	15, 30, 45, 60, 75, 90, 120 psi
Flow (water)	7 l/min / 0.25 scfm
Size	1/4"
Thread Connection	Female/Female, NPT, BSP
Temperature Range	Water: 4°C to 60°C (39°F to 140°F) Gases: 0°C to 60°C (32°F to 140°F)
Weight	125 grams/4.4 oz
Materials	Housing: Brass nickel plated Diaphragm: Nitrile / FPM Spring: Stainless Steel Valve Seat: PPH

Applications Examples	
• Filling machines	• Pharmacies
• Cooking ovens	• Irrigation systems
• Plumbing	• Sprinklers
• Laboratory dosing equipment	• Misting



Max Inlet Pressure: 145 psig (10 bar)

THREAD CONNECTION	MAX REGULATED OUTPUT PRESSURE	MAX FLOW (Water)	MAX FLOW (Gas)	TOLERANCES	FLUIDREG PART NUMBER
1/4" NPT	15 psig	3000 ml/min	400 l/min / 14.2 scfm	± 2 psig	PWR239AS1215
1/4" NPT	30 psig	4000 ml/min	600 l/min / 21.3 scfm	± 4 psig	PWR239AS1230
1/4" NPT	45 psig	4000 ml/min	700 l/min / 24.7 scfm	± 4.5 psig	PWR239AS1245
1/4" NPT	60 psig	4000 ml/min	700 l/min / 24.7 scfm	± 6 psig	PWR239AS1260
1/4" NPT	75 psig	4000 ml/min	700 l/min / 24.7 scfm	± 7.5 psig	PWR239AS1275
1/4" NPT	90 psig	4000 ml/min	800 l/min / 28.3 scfm	± 9 psig	PWR239AS1290
1/4" NPT	100 psig	4000 ml/min	800 l/min / 28.3 scfm	± 10 psig	PWR239AS12100
1/4" NPT	120 psig	4000 ml/min	800 l/min / 28.3 scfm	± 10 psig	PWR239AS12120

Fluid Regulators | EcoReg - Max Inlet Pressure: 145 psig (10 bar)

This pressure regulator for drinking water ensures a constant and precise outlet pressure independent from the inlet pressure. The EcoReg's pressure value has been factory preset and cannot be changed. This ensures that no one can manipulate the specified pressure value. The choice of high quality materials allows the EcoReg to be used in various applications across different industries, like water dispensers, coffee systems or in respiratory oxygen machines. The EcoReg with its preset pressure will prevent unwanted pressure manipulation and protect the machines or help reduce potable water waste.

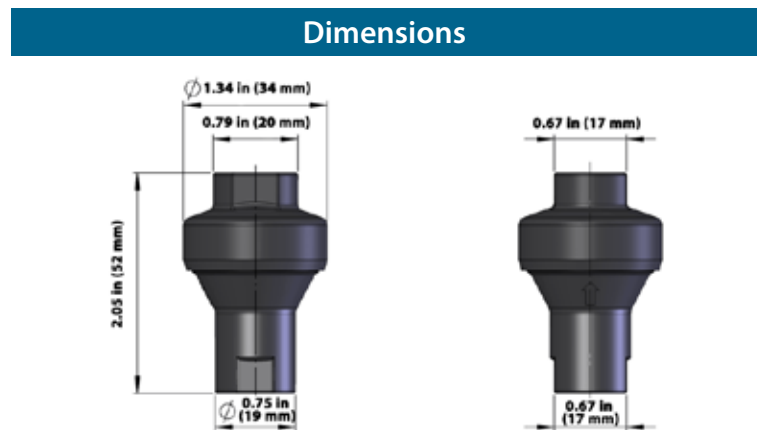


- NSF certified
- Factory preset pressure & tamperproof
- Reduces consumption
- Service free - no adjustments needed
- Small footprint & lightweight
- Easy to mount in any water supply system

Technical Specifications	
Max Inlet Pressure	Water: 10 bar/145 psig Other gases: 18 bar/260 psig
Size (output pressure)	15, 30, 45, 60, 75, 90, 120 psi
Flow (water)	7 l/min / 0.25 scfm
Size	1/4"
Thread Connection	Female/Female, NPT, BSP
Temperature Range	Water: 4°C to 60°C (39°F to 140°F) Gases: 0°C to 60°C (32°F to 140°F)
Weight	45 grams/1.6 oz
Materials	Housing: Grivory® Spring: DIN 1.4310 / AISI 301 Valve Seat: PPH Spindle: DIN 1.4404 / AISI 316L

Applications Examples	
• Water dispensers	• Respiratory equipment
• Coffee & drink machines	• Laboratory dosing equipment
• Filling machines	• Pharmacies
• Cooking ovens	• Irrigation systems
• Fridges & ice makers	• Sprinklers
• Plumbing	• Misting

Regulatory Compliance
• DIN 50930-6 / FDA/EU drinking water directives, NSF/ANSI 169 and all applicable requirements.



Max Inlet Pressure: 145 psig (10 bar)

THREAD CONNECTION	MAX REGULATED OUTPUT PRESSURE	MAX FLOW (Water)	MAX FLOW (Gas)	TOLERANCES	ECOREG PART NUMBER
1/4" NPT	15 psig	3000 ml/min	400 l/min / 14.2 scfm	± 2 psig	PER239KS1215
1/4" NPT	30 psig	4000 ml/min	600 l/min / 21.3 scfm	± 4 psig	PER239KS1230
1/4" NPT	45 psig	4000 ml/min	700 l/min / 24.7 scfm	± 4.5 psig	PER239KS1245
1/4" NPT	60 psig	4000 ml/min	700 l/min / 24.7 scfm	± 6 psig	PER239KS1260
1/4" NPT	75 psig	4000 ml/min	700 l/min / 24.7 scfm	± 7.5 psig	PER239KS1275
1/4" NPT	90 psig	4000 ml/min	800 l/min / 28.3 scfm	± 9 psig	PER239KS1290
1/4" NPT	100 psig	4000 ml/min	800 l/min / 28.3 scfm	± 10 psig	PER239KS12100
1/4" NPT	120 psig	4000 ml/min	800 l/min / 28.3 scfm	± 10 psig	PER239KS12120

HoseGuard - Max Inlet Pressure: 255 psig (18 bar)

A preset air fuse that offers simple but effective protection for pneumatic systems in the event of a broken compressed air hose or pipe. This reduces the potential for an air hose to break and whip around violently, potentially damaging equipment and injuring personnel. Should the volume of air exceed the factory preset value, the HoseGuard automatically senses this increase and immediately shuts off the air supply.



- Protects personnel, equipment and facilities from dangerous pneumatic hose breaks
- Maintenance friendly - a small bleed allows for easy repairs if/when a hose does break
- Reliable, factory preset and tamper-proof. No adjustment necessary - simply install
- Lightweight, compact size and compatible with all pneumatic systems

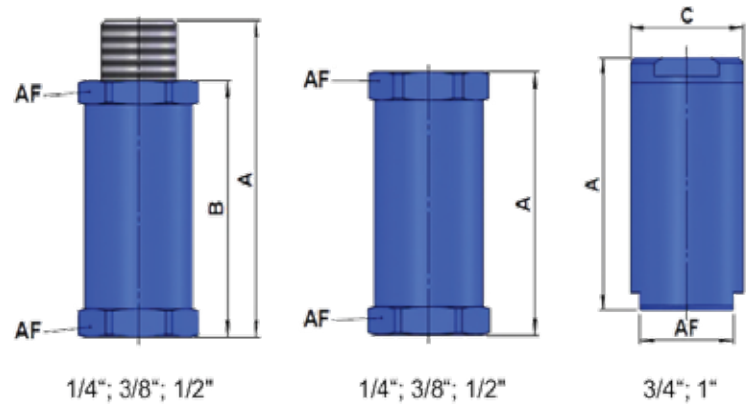
Technical Specifications	
Max Inlet Pressure	255 PSIG (18 bar)
Sizes	1/4", 3/8", 1/2", 3/4", 1", 2"
Thread Connection	Male/Female [†] Female/Female
Flows	Low [†] , Standard, High [†]
Temperature Range	1/4", 3/8", 1/2": -4° to 176° F (-20° to 80° C) 3/4", 1", 2": -4° to 248° F (-20° to 120° C)
Materials	Housing: Aluminum* Other: Nitrile, rubber, plastic, stainless steel

[†]Not available on all sizes
*Stainless steel available by special order

Regulatory Compliance

- ISO 4414:2010
- OSHA: 1926 Safety & Health Regulations for Construction, Power-operated hand tools - 1926.302(b)(7) OSHA regulations (Standards - 29 CFR)

Dimensions (see table below)



Application Examples

- Offshore
- Power plants
- Amusement parks
- Factories
- Assembly lines

Thread connection*	Flow Type	Flow Closing Point at 120 PSIG**	Dimensions (in)				Weight (g/oz)	Part Number
			A	B	C	AF		
1/4", F/F, NPT	Low	~1.8 SCFM	1.93			.87	33/1.16	PHG281ZL1211
1/4", F/F, NPT	Standard	~27 SCFM	1.93			.87	33/1.16	PHG281A1211
1/4", F/F, NPT	High	~35 SCFM	1.93			.87	33/1.16	PHG281ZH1211
1/4", M/F, NPT	Low	~1.8 SCFM	2.32	1.93		.87	40/1.41	PHG281ZL1221
1/4", M/F, NPT	Standard	~27 SCFM	2.32	1.93		.87	40/1.41	PHG281A1221
1/4", M/F, NPT	High	~35 SCFM	2.32	1.93		.87	40/1.41	PHG281ZH1221
3/8" F/F, NPT	Standard	~38 SCFM	2.29			1.06	60/2.12	PHG281A1311
3/8" F/F, NPT	High	~51 SCFM	2.29			1.06	60/2.12	PHG281ZH1311
3/8" M/F, NPT	Standard	~38 SCFM	2.76	2.29		1.06	67/2.36	PHG281A1321
3/8" M/F, NPT	High	~51 SCFM	2.76	2.29		1.06	67/2.36	PHG281ZH1321
1/2" F/F, NPT	Standard	~107 SCFM	2.56			1.18	78/2.75	PHG281A1411
1/2" F/F, NPT	High	~121 SCFM	2.56			1.18	78/2.75	PHG281ZH1411
1/2" M/F, NPT	Standard	~107 SCFM	3.11	2.56		1.18	85/3	PHG281A1421
1/2" M/F, NPT	High	~121 SCFM	3.11	2.56		1.18	85/3	PHG281ZH1421
3/4" F/F, NPT	Standard	~144 SCFM	2.99		1.42	1.18	107/3.77	PHG281A1511
3/4" F/F, NPT	High	~184 SCFM	2.99		1.42	1.18	107/3.77	PHG281ZH1511
1" F/F, NPT	Standard	~184 SCFM	3.94		1.97	1.61	320/11.29	PHG281A1611
1" F/F, NPT	High	~268 SCFM	3.94		1.97	1.61	320/11.29	PHG281ZH1611
2" F/F, NPT	- Contact us -	~456 SCFM					- Contact us -	PHG281A1911

*Other sizes and BSP connection available; please contact us to learn more. **Data available for other flow closing point pressures on next page.

HoseGuard Air Flow Closing Rates

All the following measurement values (flow for closing function) apply for a HoseGuard® (hose breakage safety device) charged with the appropriate pressure P1 and with a free Pa outlet. If a component is fitted after the HoseGuard® that reduces the flow performance (e.g. linkage, screw fitting, hose, etc.), it is possible that the required flow for the defined closing point is no longer attained and that the HoseGuard® will not close.

In this case the application must be appropriately tested. It is possible that another component may have to be selected after the HoseGuard®, or a smaller HoseGuard®, depending on the test result.



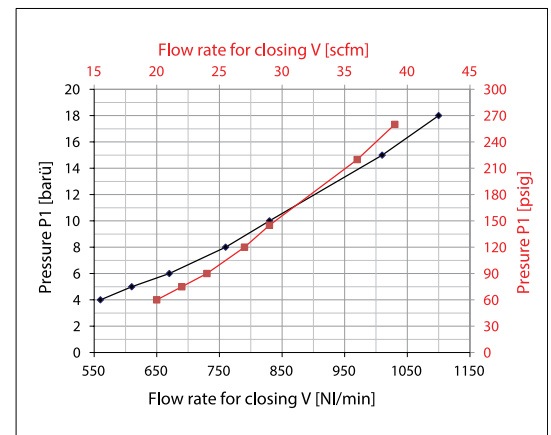
HoseGuard® 1/4"

Flow measurement according to DIN EN 60534

Air flow rate for closing ($\pm 10\%$)

p1	p1	Dp	Dp	T	RF	RF	V	V
(barü)	(psig)	(bar)	(psig)	(K)	(NI/min)	(scfm)	(NI/min)	(scfm)
18	260	0.40	5.8	284	180	6.5	1100	39
15	220	0.40	5.8	283	160	5.5	1010	36
10	145	0.40	5.8	283	110	4.0	830	29
8	120	0.40	5.8	283	95	3.5	760	27
6	90	0.40	5.8	283	75	2.6	670	24
5	75	0.40	5.8	283	65	2.3	610	22
4	60	0.40	5.8	283	55	2.0	560	20

p1: Inlet pressure | Dp: Pressure difference | T: Temperature | RF: Reset Flow | V: Flow rate for closing



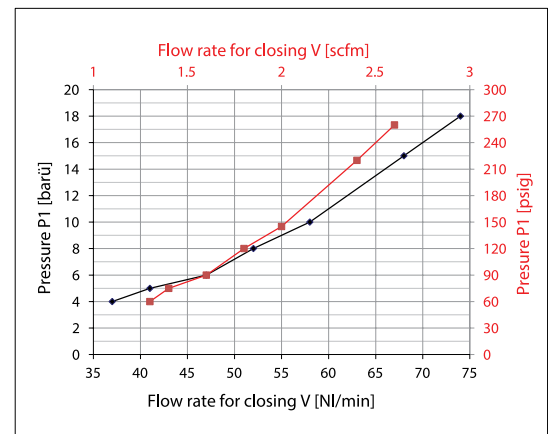
HoseGuard® 1/4" Low Flow

Flow measurement according to DIN EN 60534

Air flow rate for closing ($\pm 10\%$)

p1	p1	Dp	Dp	T	RF	RF	V	V
(barü)	(psig)	(bar)	(psig)	(K)	(NI/min)	(scfm)	(NI/min)	(scfm)
18	260	0.07	1.0	283	37	1.30	74	2.6
15	220	0.07	1.0	282	29	1.00	68	2.4
10	145	0.07	1.0	284	21	0.75	58	2.0
8	120	0.06	0.8	283	18	0.65	52	1.8
6	90	0.07	1.0	286	15	0.52	47	1.6
5	75	0.06	0.8	286	14	0.49	41	1.4
4	60	0.06	0.8	286	12	0.42	37	1.3

p1: Inlet pressure | Dp: Pressure difference | T: Temperature | RF: Reset Flow | V: Flow rate for closing



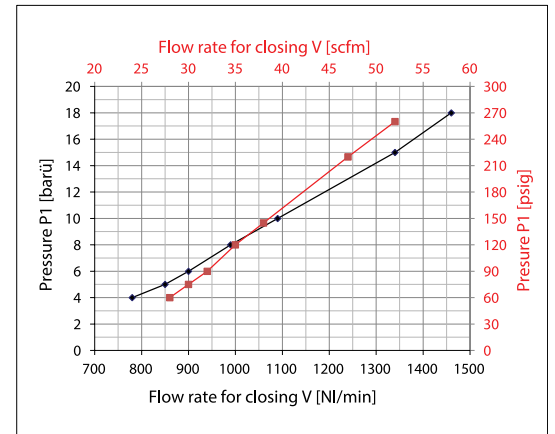
HoseGuard® 1/4" High Flow

Flow measurement according to DIN EN 60534

Air flow rate for closing ($\pm 10\%$)

p1	p1	Dp	Dp	T	RF	RF	V	V
(barü)	(psig)	(bar)	(psig)	(K)	(NI/min)	(scfm)	(NI/min)	(scfm)
18	260	0.90	13.0	287	180	6.5	1460	52
15	220	0.90	13.0	286	160	5.5	1340	47
10	145	0.90	13.0	287	110	4.0	1090	38
8	120	0.90	13.0	284	95	3.5	990	35
6	90	0.90	13.0	282	75	2.6	900	32
5	75	1.00	14.5	282	65	2.3	850	30
4	60	1.00	14.5	282	55	2.0	780	28

p1: Inlet pressure | Dp: Pressure difference | T: Temperature | RF: Reset Flow | V: Flow rate for closing



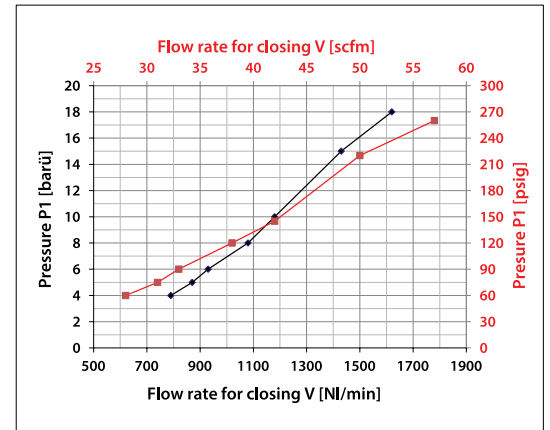
HoseGuard® 3/8"

Flow measurement according to DIN EN 60534

Air flow rate for closing ($\pm 10\%$)

p1	p1	Dp	Dp	T	RF	RF	V	V
(barü)	(psig)	(bar)	(psig)	(K)	(NI/min)	(scfm)	(NI/min)	(scfm)
18	260	0.20	2.9	282	180	6.5	1620	57
15	220	0.20	2.9	283	160	5.5	1430	50
10	145	0.21	3.0	283	110	4.0	1180	42
8	120	0.20	2.9	284	95	3.5	1080	38
6	90	0.19	2.7	285	75	2.6	930	33
5	75	0.20	2.9	284	65	2.3	870	31
4	60	0.19	2.7	284	55	2.0	790	28

p1: Inlet pressure | Dp: Pressure difference | T: Temperature | RF: Reset Flow | V: Flow rate for closing



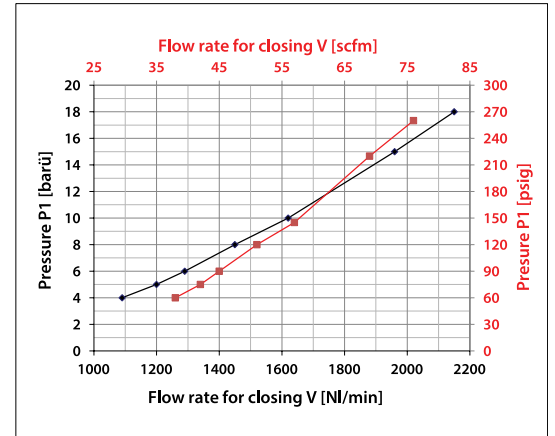
HoseGuard® 3/8" High Flow

Flow measurement according to DIN EN 60534

Air flow rate for closing (± 10%)

p1	p1	Dp	Dp	T	RF	RF	V	V
[barü]	(psig)	[bar]	(psig)	[K]	(NI/min)	(scfm)	[NI/min]	(scfm)
18	260	0.23	3.3	282	180	6.5	2150	76
15	220	0.23	3.3	282	160	5.5	1960	69
10	145	0.23	3.3	283	110	4.0	1620	57
8	120	0.22	3.2	284	95	3.5	1450	51
6	90	0.22	3.2	286	75	2.6	1290	45
5	75	0.23	3.3	285	65	2.3	1200	42
4	60	0.23	3.3	283	55	2.0	1090	38

p1: Inlet pressure | Dp: Pressure difference | T: Temperature | RF: Reset Flow | V: Flow rate for closing



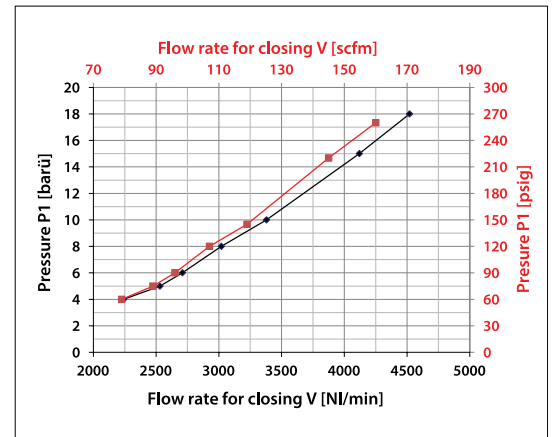
HoseGuard® 1/2"

Flow measurement according to DIN EN 60534

Air flow rate for closing (± 10%)

p1	p1	Dp	Dp	T	RF	RF	V	V
(barü)	(psig)	(bar)	(psig)	(K)	(NI/min)	(scfm)	(NI/min)	(scfm)
18	260	0.36	5.2	282	180	6.5	4520	160
15	220	0.37	5.4	282	160	5.5	4120	145
10	145	0.37	5.4	283	110	4.0	3380	119
8	120	0.36	5.2	284	95	3.5	3020	107
6	90	0.35	5.0	283	75	2.6	2710	96
5	75	0.35	5.0	282	65	2.3	2530	89
4	60	0.35	5.0	281	55	2.0	2240	79

p1: Inlet pressure | Dp: Pressure difference | T: Temperature | RF: Reset Flow | V: Flow rate for closing



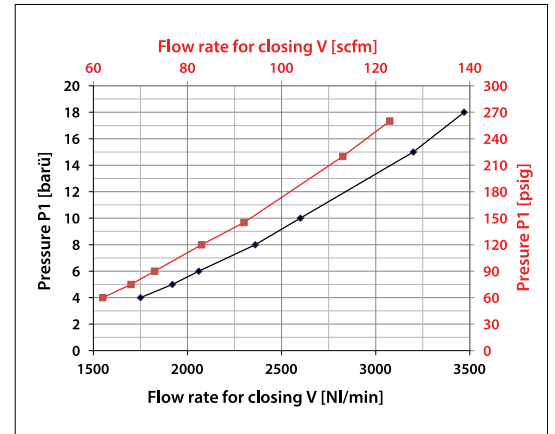
HoseGuard® 1/2" Low Flow

Flow measurement according to DIN EN 60534

Air flow rate for closing (± 10%)

p1	p1	Dp	Dp	T	RF	RF	V	V
(barü)	(psig)	(bar)	(psig)	(K)	(NI/min)	(scfm)	(NI/min)	(scfm)
18	260	0.24	3.5	276	180	6.5	3470	123
15	220	0.24	3.5	275	160	5.5	3200	113
10	145	0.25	3.6	275	110	4.0	2600	92
8	120	0.26	3.8	275	95	3.5	2360	83
6	90	0.26	3.8	276	75	2.6	2060	73
5	75	0.26	3.8	281	65	2.3	1920	68
4	60	0.26	3.8	280	55	2.0	1750	62

p1: Inlet pressure | Dp: Pressure difference | T: Temperatur | RF: Reset Flow | V: Flow rate for closing



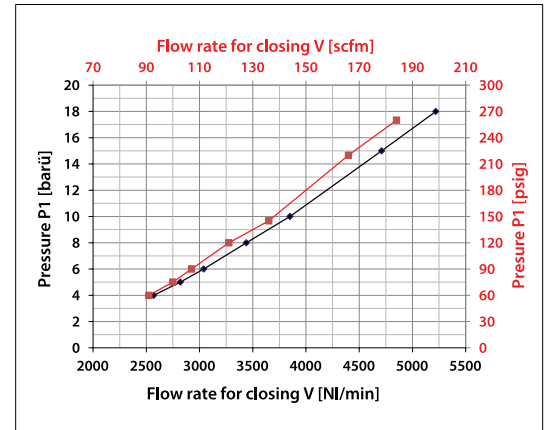
HoseGuard® 1/2" High Flow

Flow measurement according to DIN EN 60534

Air flow rate for closing (± 10%)

p1	p1	Dp	Dp	T	RF	RF	V	V
(barü)	(psig)	(bar)	(psig)	(K)	(NI/min)	(scfm)	(NI/min)	(scfm)
18	260	0.41	5.9	282	180	6.5	5220	184
15	220	0.42	6.1	282	160	5.5	4710	166
10	145	0.42	6.1	283	110	4.0	3850	136
8	120	0.41	5.9	285	95	3.5	3440	121
6	90	0.40	5.8	284	75	2.6	3040	107
5	75	0.41	5.9	283	65	2.3	2820	100
4	60	0.41	5.9	282	55	2.0	2570	91

p1: Inlet pressure | Dp: Pressure difference | T: Temperatur | RF: Reset Flow | V: Flow rate for closing



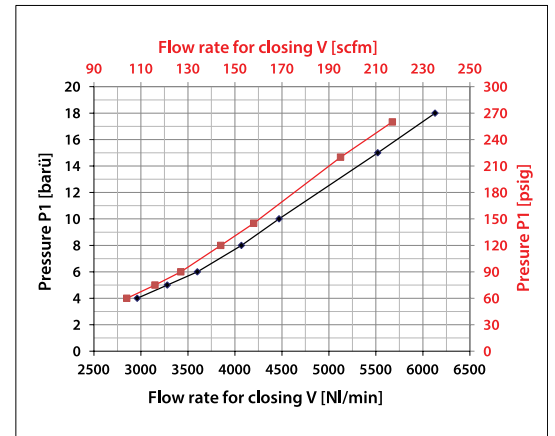
HoseGuard® 3/4"

Flow measurement according to DIN EN 60534

Air flow rate for closing (± 10%)

p1	p1	Dp	Dp	T	RF	RF	V	V
(barü)	(psig)	(bar)	(psig)	(K)	(NI/min)	(scfm)	(NI/min)	(scfm)
18	260	0.24	3.5	282	690	24.5	6130	217
15	220	0.24	3.5	281	580	20.5	5520	195
10	145	0.25	3.6	283	400	14.0	4470	158
8	120	0.24	3.5	281	330	11.5	4070	144
6	90	0.25	3.5	283	260	9.0	3600	127
5	75	0.25	3.5	287	220	8.0	3280	116
4	60	0.25	3.5	285	180	6.5	2960	104

p1: Inlet pressure | Dp: Pressure difference | T: Temperature | RF: Reset Flow | V: Flow rate for closing



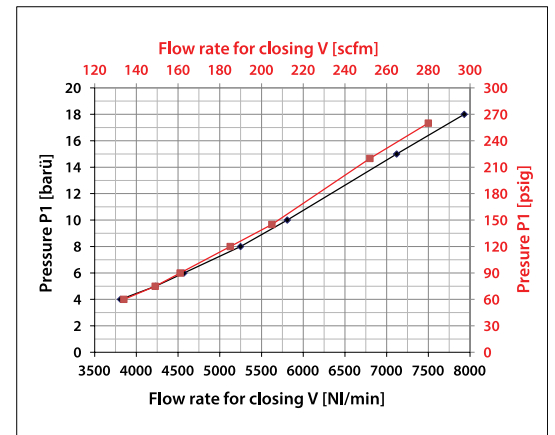
HoseGuard® 3/4" High Flow

Flow measurement according to DIN EN 60534

Air flow rate for closing (± 10%)

p1	p1	Dp	Dp	T	RF	RF	V	V
(barü)	(psig)	(bar)	(psig)	(K)	(NI/min)	(scfm)	(NI/min)	(scfm)
18	260	0.29	4.2	282	2380	84	7930	280
15	220	0.29	4.2	282	2000	71	7120	252
10	145	0.30	4.3	282	1380	49	5810	205
8	120	0.29	4.2	281	1120	40	5250	185
6	90	0.31	4.5	283	880	31	4570	161
5	75	0.31	4.5	290	750	26.5	4230	149
4	60	0.31	4.5	285	630	22.5	3810	134

p1: Inlet pressure | Dp: Pressure difference | T: Temperature | RF: Reset Flow | V: Flow rate for closing



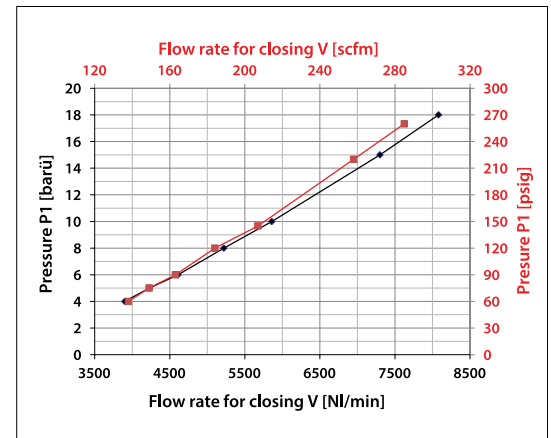
HoseGuard® 1"

Flow measurement according to DIN EN 60534

Air flow rate for closing (± 10%)

p1	p1	Dp	Dp	T	RF	RF	V	V
(barü)	(psig)	(bar)	(psig)	(K)	(NI/min)	(scfm)	(NI/min)	(scfm)
18	260	0.21	3.0	282	1440	51	8080	285
15	220	0.20	2.9	283	1200	43	7300	258
10	145	0.21	3.0	283	840	29.5	5860	207
8	120	0.22	3.2	284	690	24.5	5220	184
6	90	0.21	3.0	283	530	18.5	4610	163
5	75	0.20	2.9	288	460	16.5	4230	149
4	60	0.20	2.9	287	380	13.5	3900	138

p1: Inlet pressure | Dp: Pressure difference | T: Temperature | RF: Reset Flow | V: Flow rate for closing



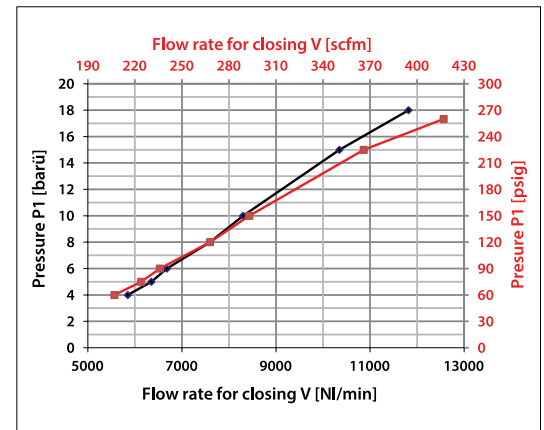
HoseGuard® 1" High Flow

Flow measurement according to DIN EN 60534

Air flow rate for closing (± 10%)

p1	p1	Dp	Dp	T	RF	RF	V	V
(barü)	(psig)	(bar)	(psig)	(K)	(NI/min)	(scfm)	(NI/min)	(scfm)
18	260	0.27	3.9	282	1440	51	11820	417
15	225	0.27	3.9	281	1200	43	10350	366
10	150	0.27	3.9	283	840	29.5	8300	293
8	120	0.27	3.9	284	690	24.5	7600	268
6	90	0.27	3.9	284	530	18.5	6680	236
5	75	0.27	3.9	286	460	16.5	6350	224
4	60	0.26	3.8	285	380	13.5	5850	207

p1: Inlet pressure | Dp: Pressure difference | T: Temperature | RF: Reset Flow | V: Flow rate for closing



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