

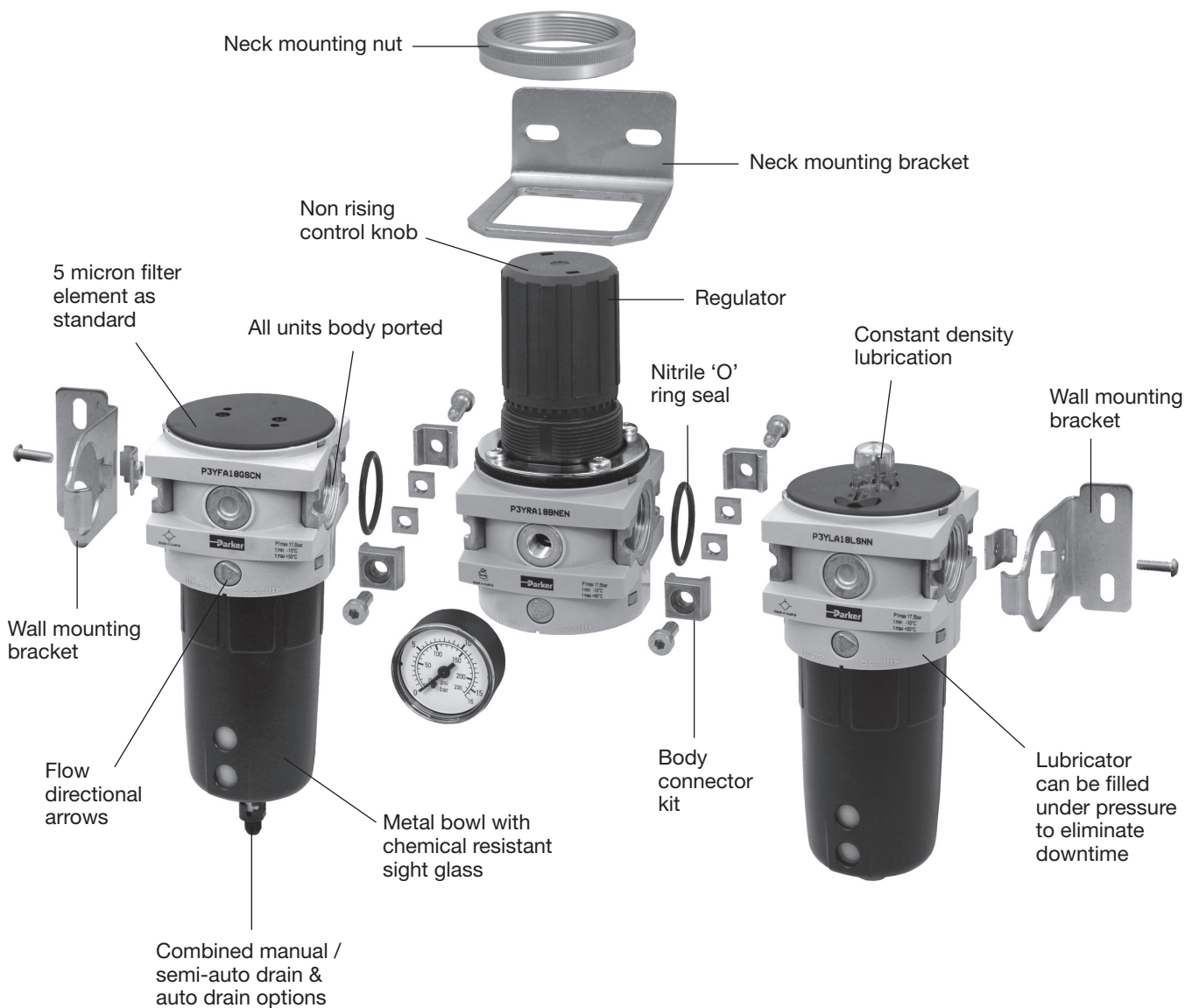
P3Y System www.hccl.ie

The P3Y system allows units to be connected together without the use of pipe connectors. This saves space, provides constant mounting centers, and maintains a modern aesthetically pleasing appearance.

The P3Y filters are specially designed to efficiently filter out rust, dirt, moisture and other impurities from compressed air lines. Operation is fully automatic with a minimum of pressure drop. Coalescing filters and adsorber filters for high purity air are also included in the P3Y series.

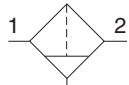
The P3Y regulators are designed to provide quick response and accurate pressure regulation for the most demanding hi-flow industrial applications.

The rolling diaphragm was designed for long trouble-free operation and will not rupture or tear under high cycle or demanding applications. The P3Y mist lubricators are designed to provide lubrication for many general purpose applications.

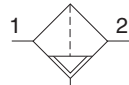


P3Y Particulate Filter

- Integral 3/4" or 1" ports (NPT & BSPP)
- High efficiency particulate element as standard
- Excellent water removal efficiency
- Robust but lightweight aluminium construction
- Low temperature -40°C (-40°F) with combined manual / semi-auto drain as standard



Manual drain



Auto drain

Port size	Description	Part number
3/4"	Combined manual /semi-auto drain	P3YFA96ESCN
3/4"	Auto drain	P3YFA96ESAN
1"	Combined manual /semi auto drain	P3YFA98ESCN
1"	Auto drain	P3YFA98ESAN

Operating information

Supply pressure (max)*:	254 psig (17.5 bar)
Operating temperature:	
Auto drain	14°F to 140°F (-10°C to 60°C)
Combined drain	-40°F to 140°F (-40°C to 60°C)
Standard filtration	5 micron
Manual / semi-auto drain:	Closed at 11.6 psig (0.8 bar) G1/8 thread male
Auto drain bowl pressure:	Closed at 11.6 psig (0.8 bar)
Bowl capacity:	4.4 US oz. (130 cm ³)
Standard filtration:	5 micron
Flow capacity†:	3/4" 170 scfm (80.2 dm ³ /s, ANR) 1" 170 scfm (80.2 dm ³ /s, ANR)
Fluid:	Compressed air
Weight:	1.98 lb (0.9 kg)

† Inlet pressure 91.4 psig (6.3 bar) inlet pressure and 7.3 psig (0.5 bar) pressure drop.

* Air supply must be dry enough to avoid ice formation at temperatures below 35.6°F (2°C).

Air quality:

Within ISO 8573-1: 1991 Class 3 and 5 (Particulates)
 Within ISO 8573-1: 2001 Class 6 and 7 (Particulates)

Ordering Information:

P3YFA		9	6	E	SC	N
Basic series		Thread type*	Port size	Element	Drain type	
Filter	P3YFA	BSPP 1	3/4 6	E 5 micron	SC	Combined manual / semi-auto drain
		NPT 9	1 8		SA	Auto drain

* Note: For 1-1/2" ported unit, please order P3YKA*BCP port block kit separately.

☐ Most popular.

Material Specifications

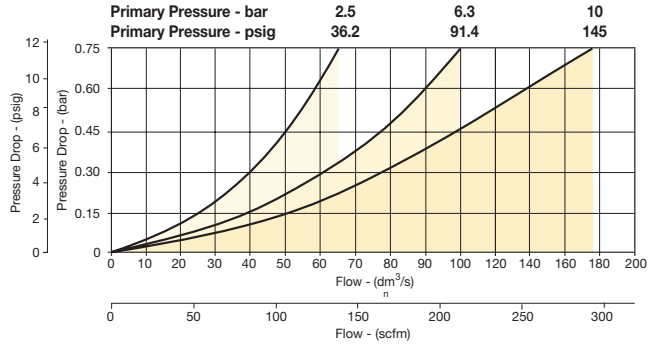
Body	Aluminium
Sight glass and bowl	Polypropylene
Body cover	ABS
Element	Sintered P.E.
Seals	Nitrile NBR
Manual / semi-auto drain	Acetal
Automatic drain	PA / Ø 10mm brass connection

Repair and Service Kits

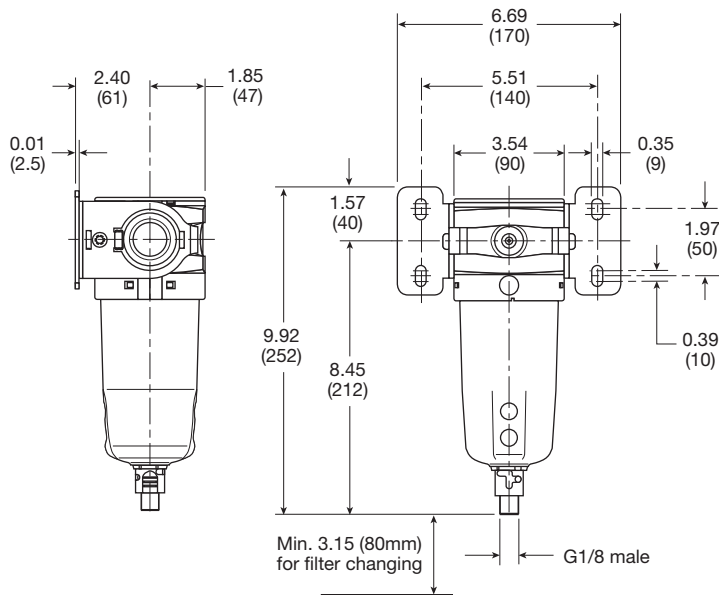
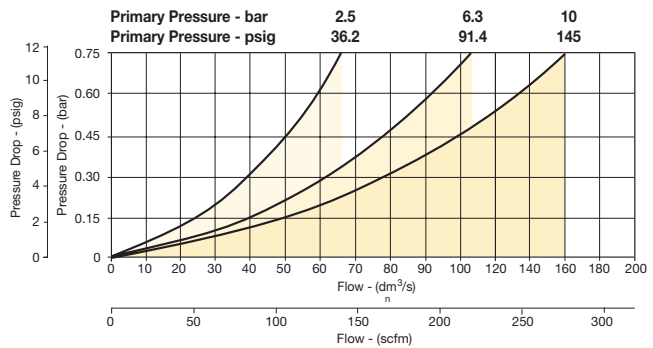
5 micron element kit	P3YKA00ESE
40 micron element kit	P3YKA00ESG
Bowl kit with combined manual / semi auto drain	P3YKA00BSC
Bowl kit with auto drain	P3YKA00BSA

Flow Characteristics

(3/4") Filter



(1") Filter



Inches (mm)

P3Y Coalescing Filter

- Extended high efficiency filter element provides greater filtration surface area.
- Integral 3/4" or 1" ports (BSPP & NPT)
- Removes liquid aerosols and sub micron particles
- Oil free air for critical applications, such as air gauging, pneumatic instrumentation and control
- Adsorber activated carbon element removes oil vapors and most hydrocarbons
- Robust but lightweight aluminum construction

Notes: To optimize the life of the coalescing element, it is advisable to install a P3YFA pre-filter with a 5 micron element upstream of the coalescing filter.

To optimize the life of the adsorber element, it is advisable to install a P3Y coalescing 0.01 micron filter upstream of the adsorber filter.



Port size	Description	Part number
3/4"	Coalescing filter 0.01 micron, combined manual / semi-auto drain	P3YFA96DSCN
3/4"	Coalescing filter 0.01 micron, auto drain	P3YFA96DSAN
1"	Coalescing filter 0.01 micron, combined manual / semi-auto drain	P3YFA98DSCN
1"	Coalescing filter 0.01 micron, auto drain	P3YFA98DSAN

Operating information

Supply pressure (max)*:	254 psig (17.5 bar)
Operating temperature:	14°F to 140°F (-10°C to 60°C)
Manual / auto drain:	Closed at 11.6 psig (0.8 bar) G1/8 thread male
Media specifications:	
Adsorber, max oil carryover	0.008 mg/m ³ (PPM w/w)
Bowl capacity:	4.4 US oz. (130 cm ³)
Standard filtration:	0.01 micron
Flow capacity†:	3/4" 275 scfm (176.9 dm ³ /s, ANR) 1" 307 scfm (144.8 dm ³ /s, ANR)

Fluid: Compressed air
 Weight: 3.5 lb (1.6 kg)

† Inlet pressure 91.4 psig (6.3 bar) inlet pressure and 7.3 psig (0.5 bar) pressure.

* Air supply must be dry enough to avoid ice formation at temperatures below 35.6°F (2°C).

Ordering Information:

P3YFA
|
9
|
6
|
D
|
SC
|
N

Basic series	Thread type*	Port size	Element	Drain type
Coalescing Filter P3YFA	BSPP 1 NPT 9	3/4 6 1 8	D 0.01 micron element with DPI standard A Adsorber	SC Combined manual / semi auto drain SA Auto drain

* **Note:** For 1-1/2" ported unit, please order P3YKA*BCP port block kit separately.

 Most popular.

Material Specifications

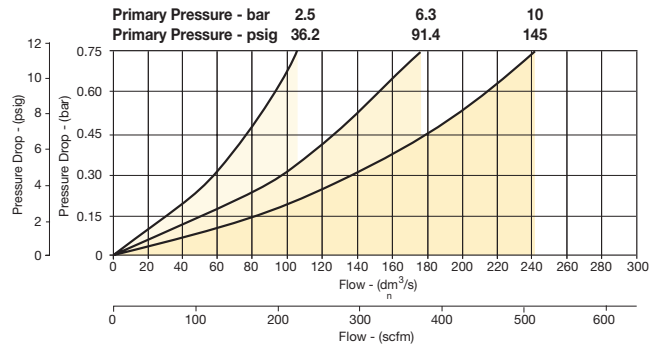
Body	Aluminium
Sight glass and bowl	Polypropylene
Filter cover	ABS
Coalescing element	Borosilicate & nano fibers
Top & bottom end cap (coalescing)	Aluminium
Adsorber element	Activated carbon
Top & bottom end cap (adsorber)	Glass filled nylon
Support cylinders	Grade 430 stainless steel
Support media	Polypropylene
Anti re-entrainment barrier	Polyester
Encapsulation	Epoxy resin / hardener
Seals	Nitrile NBR
Manual / semi-auto drain	Acetal
Auto drain	PA / Ø 10mm brass connection
Differential pressure indicator, body	Acetal
Differential pressure indicator, internal parts	Acetal
Differential pressure indicator, spring	Stainless steel
Differential pressure indicator, seals	Nitrile NBR
Differential pressure indicator, support plate	ABS
Differential pressure indicator, screws	Steel / zinc plated

Repair and Service Kits

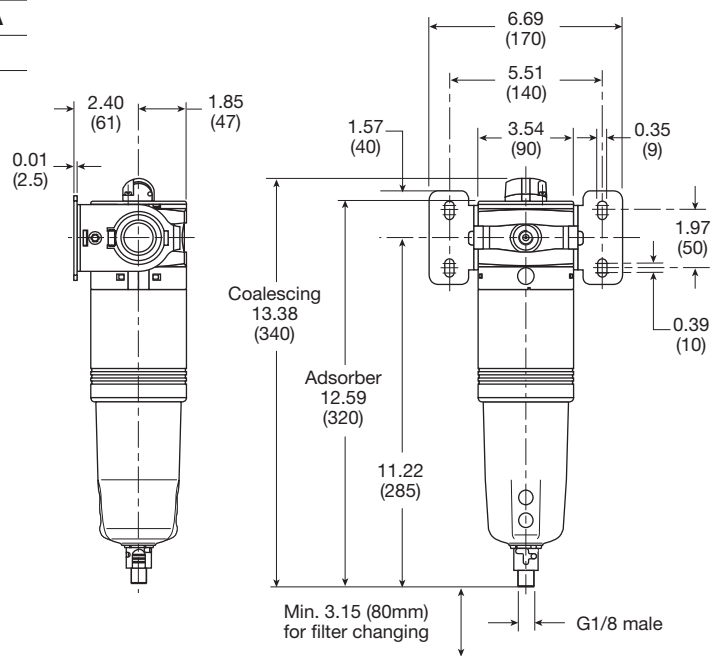
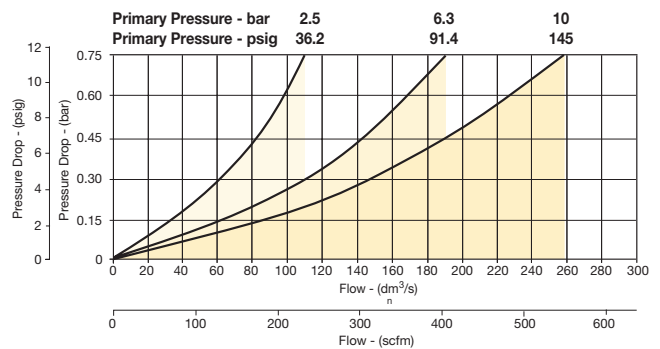
0.01 micron element kit	P3YKA00ESC
Adsorber element kit	P3YKA00ESA
Bowl kit with combined manual / semi auto drain	P3YKA00BSC
Bowl kit with auto drain	P3YKA00BSA
Differential pressure indicator kit	P3YKA00RQ

Flow Characteristics

(3/4") 0.01 Micron Coalescing Filter Saturated



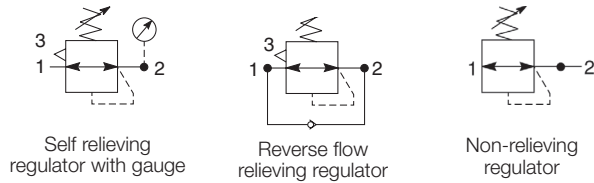
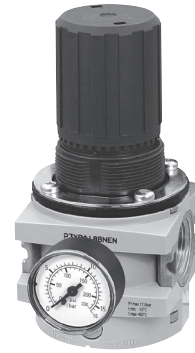
(1") 0.01 Micron Coalescing Filter Saturated



Inches (mm)

P3Y Regulators

- Integral 3/4" or 1" ports (BSPP and NPT)
- Robust but lightweight aluminium construction
- Secondary pressure ranges 12 and 16 bar
- Rolling diaphragm for extended life
- Secondary aspiration plus rolling diaphragm provides quick response and accurate pressure regulation
- Optional tamperproof regulator padlock
- Reverse flow / relieving option
- Low temperature -40°C (-40°F)



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" 380 scfm (179.3 dm³/s, ANR) 1" 550 scfm (259.6 dm³/s, ANR)
Fluid:	Compressed air
Gauge port (x2):	1/4"
Weight:	2.4 lb (1.08 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.

* Air supply must be dry enough to avoid ice formation at temperatures below 35.6°F (2°C).

Port size	Description	Part number
3/4"	174 psig relieving	P3YRA96BNEN
3/4"	174 psig relieving + pressure gauge	P3YRA96BNFN
1"	174 psig relieving	P3YRA98BNEN
1"	174 psig relieving + pressure gauge	P3YRA98BNFN

Ordering information

P3YRA	9	6	B	N	E	N
Basic series	Thread type*	Port size	Relief	Lockable	Adjustment range	
Regulator P3YRA	BSPP 1 NPT 9	3/4 6 1 8	B Relieving R Reverse flow / relieving	N Standard A† Lockable	E 0 to 174 psi (0 to 12 bar), no gauge H 0 to 232 psi (0 to 16 bar), no gauge F 0 to 174 psi (0 to 12 bar), gauge J 0 to 232 psi (0 to 16 bar), gauge	

Notes:
* For 1-1/2" ported unit, please order P3YKA*BCP port block kit separately.
† Not field convertible.

Most popular.

Material Specifications

Body	Aluminium
Bonnet	Glass filled polyamide
Regulator cover	ABS
Control knob	Glass filled polyamide
Valve	Brass / NBR
Seals	Nitrile NBR
Screws	Steel / zinc plated

Repair and Service Kits

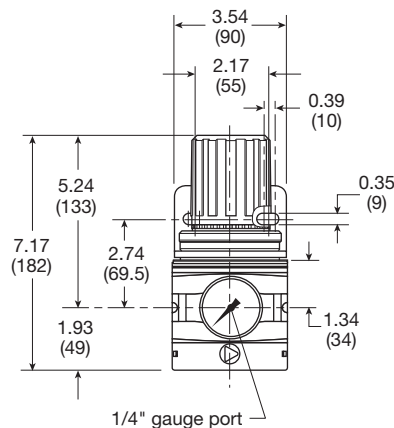
Angle bracket + metal lock ring	P3YKA00MS
Panel mounting nut	P3YKA00MM
Diaphragm kit (relieving type)	P3YKA00RR
Diaphragm kit (non-relieving type)	P3YKA00RN
0 to 160 psig (0 to 10 bar), gauge 1/4" port	K4520N14160
0 to 300 psig (0 to 20 bar), gauge 1/4" port	K4520N14300

WARNING

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

CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design. For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

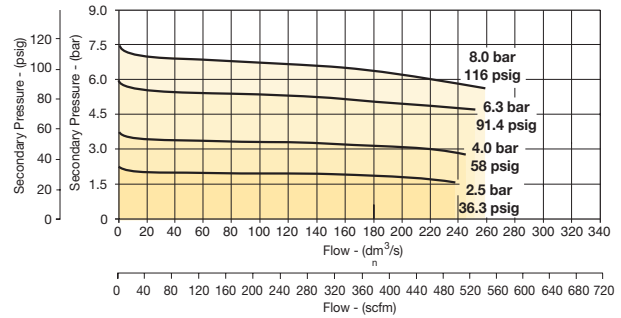


Inches (mm)

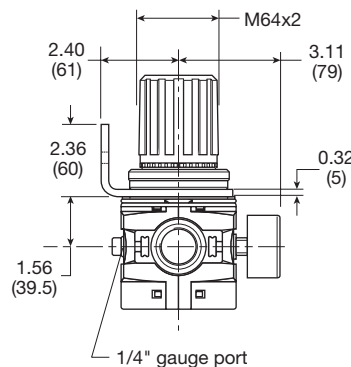
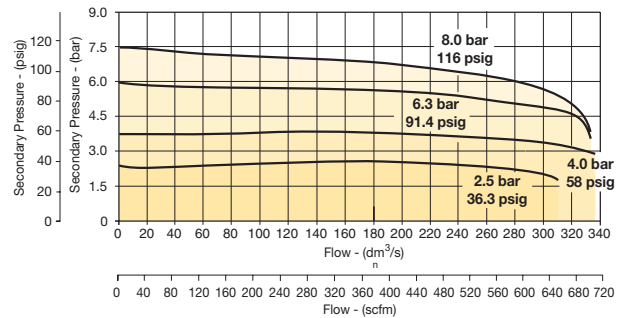
Air Preparation Products P3Y Series

Flow Characteristics

(3/4") Regulator



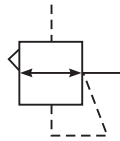
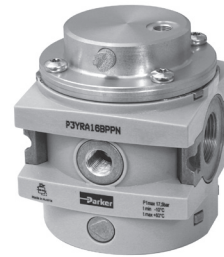
(1") Regulator



Pilot Operated Regulators

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

P3YRA 9 6 BPPN

Basic series		Thread type*		Port size	
Pilot Operated Regulator	P3YRA	BSPP	1	3/4	6
		NPT	9	1	8

* Note: For 1-1/2" ported unit, please order P3YKA*BCP port block kit separately.

Most popular.



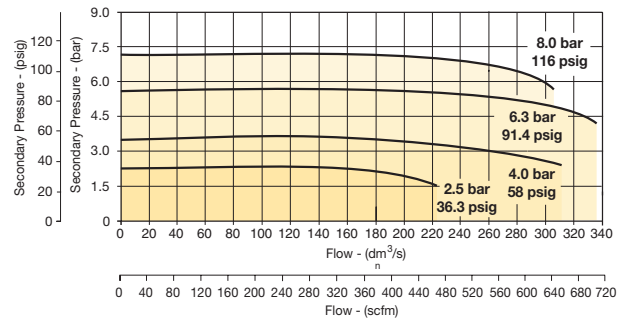
For inventory, lead times, and kit lookup, visit www.pdnplu.com

Material Specifications

Body	Aluminium
Body cover	ABS
Valve	Brass / NBR composite
Pilot valve booster	Aluminium
Seals	Nitrile NBR
Screws	Zinc plated steel

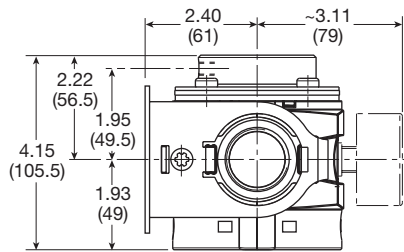
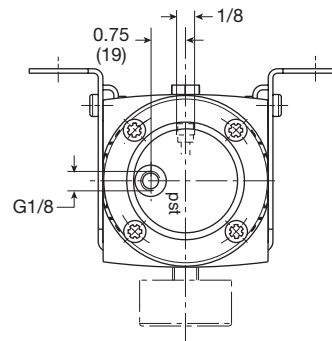
Flow Characteristics

3/4" and 1" Pilot Regulator

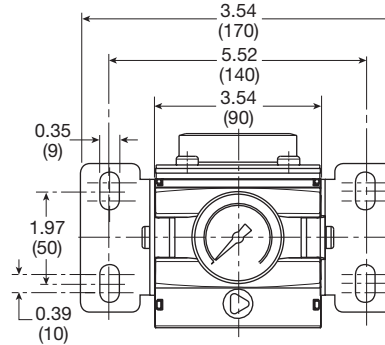


WARNING

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



Inches (mm)



P3Y Proportional Pressure Regulator

- Integral 3/4" or 1" ports (BSPP & NPT)
- Accurate output pressure
- Very fast response times
- Robust but lightweight design



Port size	Description	Part number
3/4"	Normally closed, 0 - 10 bar (0 to 145 psig)	P3YPA96BD2VA2A
1"	Normally closed, 0 - 10 bar (0 to 145 psig)	P3YPA98BD2VA2A

Operating information

Operating pressure:	P ¹ min	14.5 psig (1 bar)	Power consumption:	I _{Bmax}	0.15 A
Inlet pressure ¹ :	P ¹ max	232 psig (16 bar)	Set value input:	U _w	V 0-10
Operating pressure:	P ² min	2.9 psig (0.2 bar)		I	mA 0-20
Outlet pressure	P ² max	145 psig (10 bar)			mA 4-20
Operating temperature:		32°F to 122°F (0°C to 50°C)	Input resistance:	R _E	243 K Ω
Flow capacity [†] :		706 scfm (33.2 dm ³ /s, ANR)	Actual valve output:	U _x	0 - 10 V
		l/min 20000	Output current:	I _{Amax}	10 mA
		m ³ /h 1200	Degree of protection:		IP65 to DIN 40050, EN 60529
Hysteresis:	P ² max	< 1%	Fluid:		Compressed air
Repeatability:	P ² max	< 0.5%	Weight:		1.2 lb (2.7 kg)
Sensitivity:	P ² max	< 0.5%	1) p ¹ > p ² + 10% p ²		
Linearity:	P ² max	< 1%	2) at p ¹ - 10 bar to p ² - 6.3 bar		
Nominal voltage:		U _n V DC 24 V = ± 10%	† Inlet pressure 91.4 psig (6.3 bar) inlet pressure and 7.3 psig (0.5 bar) pressure drop.		
Residual ripple:		10%			

Ordering Information

P3YPA 9 6 B D 2 A A 2 A

Basic series Proportional Pressure Regulator P3YPA	Thread type* BSPP 1 NPT 9	Version Side exhaust, NC (Normally closed) B Side exhaust, NO (Normally open) C	Control signal A 4-20 mA V 0-10 V	Input connector 2 M12 (5-pin)
Port size 3/4 6 1 8	Pressure range 0-10 bar (0-145 psig) D	Power supply 2 24 volts	Output signal A Analog 0-10 V	

* Note: For 1-1/2" ported unit, please order P3YKA*BCP port block kit separately.

☐ Most popular.



For inventory, lead times, and kit lookup, visit www.pdnplu.com

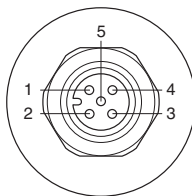
Material Specifications

Housing	Aluminium
Pilot valve booster	Brass / NBR composite aluminium
Standard seals	NBR
Body cover screws	Steel / zinc plated

Cables

Type	Part number
M12, 5-pin female to flying lead cable, TPE; 2m (6.6 ft)	RKC 4.5T-2/S1587

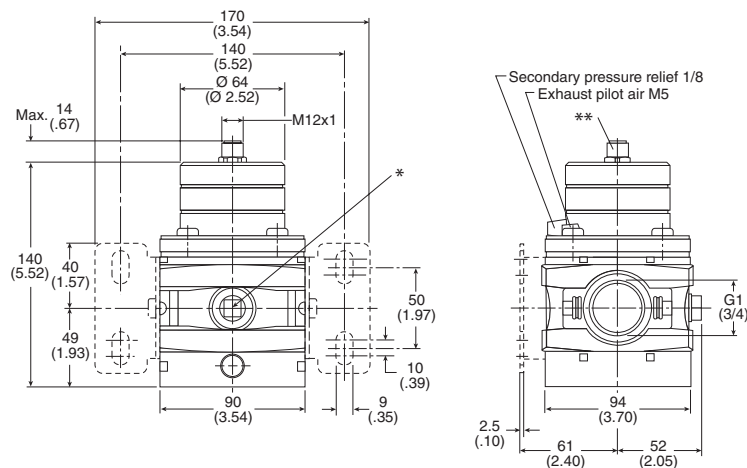
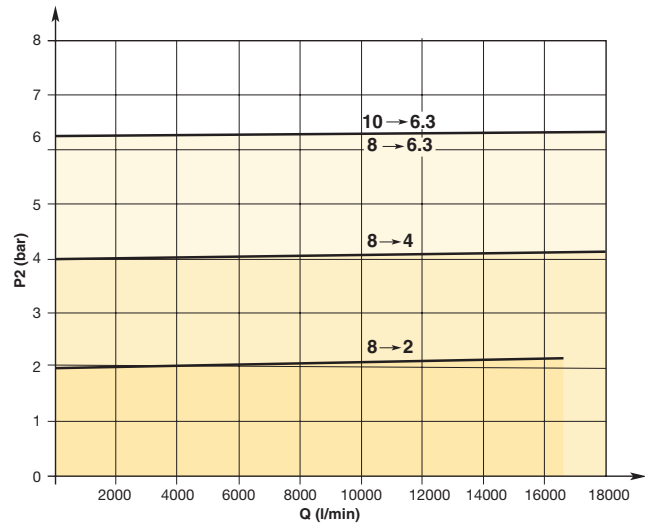
Connection Diagram



Connector M12 x 1

Pin No.	Function
1 24 V	Supply
2 0 V	Reference & mass capacity
3 0 - 10 V	Set value input
4 0 V	Signal
5 0 - 10 V	Analog output

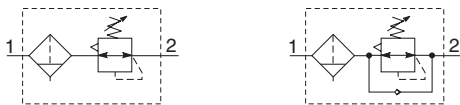
Flow Characteristics



* Two opposite gauge ports 1/4, plug screw mounted
** Connection for 5-pin plug M12 x 1

P3Y Filter / Regulator

- Integral 3/4" or 1" ports (BSPP or NPT)
- High efficiency element as standard
- Excellent water removal efficiency
- Robust but lightweight aluminium construction
- Secondary pressure ranges 12 and 16 bar
- Rolling diaphragm for extended life
- Secondary aspiration plus balanced poppet provides quick response and accurate pressure regulation.
- Reverse flow / relieving option
- Low temperature -40°C (-40°F) with combined manual / semi-auto drain as standard



Port size	Description (0 to 174 psi)	Part number
3/4"	Relieving, combined manual / semi-auto drain	P3YEA96ESCBNEN
3/4"	Relieving, auto drain	P3YEA96ESABNEN
3/4"	Relieving, gauge, combined manual / semi-auto drain	P3YEA96ESCBNFN
3/4"	Relieving, gauge, auto drain	P3YEA96ESABNFN
1"	Relieving, combined manual / semi-auto drain	P3YEA98ESCBNEN
1"	Relieving, auto drain	P3YEA98ESABNEN
1"	Relieving, gauge, combined manual / semi-auto drain	P3YEA98ESCBNFN
1"	Relieving, gauge, auto drain	P3YEA98ESABNFN

Operating information

Supply pressure (max)*:	254 psig (17.5 bar)
Operating temperature:	
Auto drain	14°F to 140°F (-10°C to 60°C)
Combined drain	-40°F to 140°F (-40°C to 60°C)
Standard filtration:	5 micron
Manual / semi-auto drain:	Closed at 11.6 psig (0.8 bar) G1/8 thread male
Auto drain bowl pressure:	Closed at 11.6 psig (0.8 bar)
Bowl capacity:	4.4 US oz. (130 cm ³)
Standard filtration:	5 micron
Flow capacity†:	3/4" 335 scfm (158.1 dm ³ /s, ANR) 1" 465 scfm (219.5 dm ³ /s, ANR)
Fluid:	Compressed air
Gauge port (x2):	1/4"
Weight:	3.3 lb (1.5 kg)

† Inlet pressure 91.4 psig (6.3 bar) inlet pressure and 7.3 psig (0.5 bar) pressure drop.

* Air supply must be dry enough to avoid ice formation at temperatures below 35.6°F (2°C).

Air quality:

Within ISO 8573-1: 1991 Class 3 and 5 (Particulates)
 Within ISO 8573-1: 2001 Class 6 and 7 (Particulates)

Ordering Information

Basic series		Thread type*		Port size		Drain type		Relief		Lockable		Adjustment range	
Filter / Regulator P3YEA		BSPP	1	3/4	6	SC	Combined manual / semi-auto drain	B	Relieving	N	Standard	E	0 to 174 psi (0 to 12 bar), no gauge
		NPT	9	1	8	SA	Auto drain	R	Reverse flow / relieving	A†	Lockable	H	0 to 232 psi (0 to 16 bar), no gauge
						Element						F	0 to 174 psi (0 to 12 bar), gauge
						E						J	0 to 232 psi (0 to 16 bar), gauge

Notes:
 * For 1-1/2" ported unit, please order P3YKA*BCP port block kit separately.
 † Not field convertible.

☐ Most popular.



For inventory, lead times, and kit lookup, visit www.pdnplu.com

Material Specifications

Body	Aluminium
Sight glass and bowl	Polypropylene
Body cover	ABS
Element	Sintered polypropylene
Seals	Nitrile NBR
Manual / semi-auto drain	Acetal
Auto drain	PA / Ø 10mm brass connection
Bonnet	Glass filled polyamide
Control Knob	Glass filled polyamide
Valve	Brass / NBR
Screws	Steel / zinc plated

Repair and Service Kits

5 micron element kit	P3YKA00ESE
Bowl kit with combined manual/semi auto drain	P3YKA00BSC
Bowl kit with auto drain	P3YKA00BSA
Key lock kit	P3XKA00AS
Diaphragm kit (relieving type)	P3YKA00RR
Diaphragm kit (non-relieving type)	P3YKA00RN
Angle bracket + metal lock ring	P3YKA00MS
Panel mount nut	P3YKA00MM

WARNING

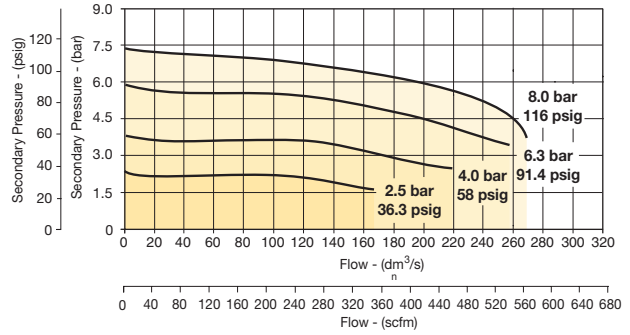
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 Do not connect regulator to bottled gas.
 Do not exceed Maximum primary pressure rating.**

CAUTION:

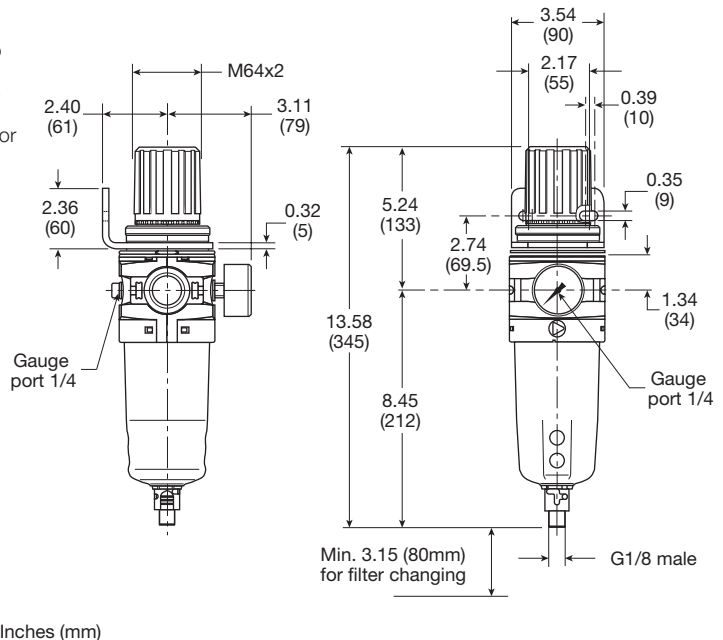
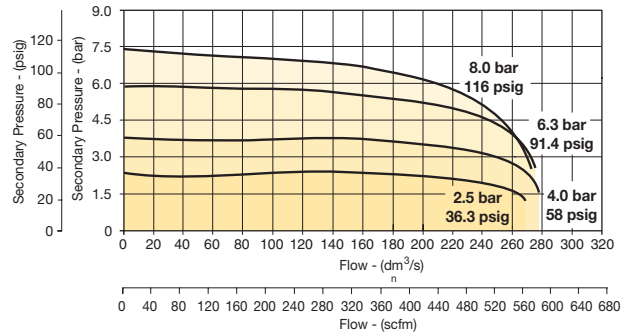
REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design. For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

Flow Characteristics

(3/4") 5 Micron Filter / Regulator

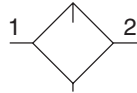


(1") 5 Micron Filter / Regulator



P3Y Lubricator

- Integral 3/4" or 1" ports (BSPP and NPT)
- Robust but lightweight aluminium construction
- Proportional oil delivery over a wide range of air flows
- Possible to fill under system pressure eliminating down time
- Large oil reservoir



Lubricator with drain

Port size	Description	Part number
3/4"	Oil mist, fill under pressure	P3YLA96LSNN
1"	Oil mist, fill under pressure	P3YLA98LSNN

Operating information

Supply pressure (max)*:	254 psig (17.5 bar)
Operating temperature*:	14°F to 140°F (-10°C to 60°C)
Flow capacity†:	3/4" 315 scfm (148.2 dm³/s, ANR) 1" 390 scfm (184.1 dm³/s, ANR)
Fluid:	Compressed air
Weight:	1.8 lb (0.8 kg)

† Inlet pressure 91.4 psig (6.3 bar) inlet pressure and 7.3 psig (0.5 bar) pressure drop.

* Air supply must be dry enough to avoid ice formation at temperatures below 35.6°F (2°C).

Low flow start point (lubrication pick-up): at 6.3 bar (91.4 psig) inlet pressure 0.5 dm³/s (1.1 scfm).

Ordering Information

P3YLA
9
6
LSNN

Basic series	Thread type*	Port size
Lubricator P3YLA	BSPP 1 NPT 9	3/4 6 1 8

* **Note:** For 1-1/2" ported unit, please order P3YKA*BCP port block kit separately.

Most popular.



For inventory, lead times, and kit lookup, visit www.pdnplu.com

Material Specifications

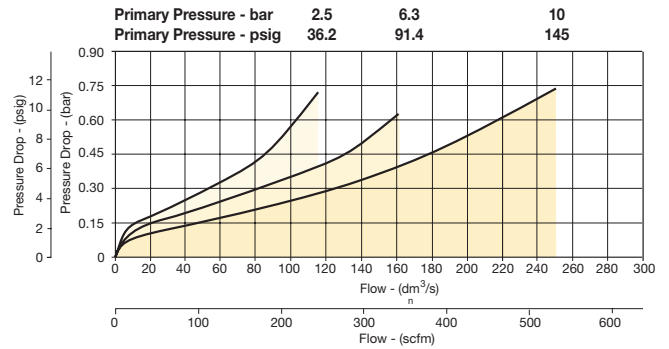
Body	Aluminium
Sight glass and bowl	Polypropylene
Sight dome	Polyamide
Lubricator cover	ABS
Top & bottom end cap	Glass filled nylon
Bayonet support	Nylon
Seals	Nitrile NBR

Repair and Service Kits

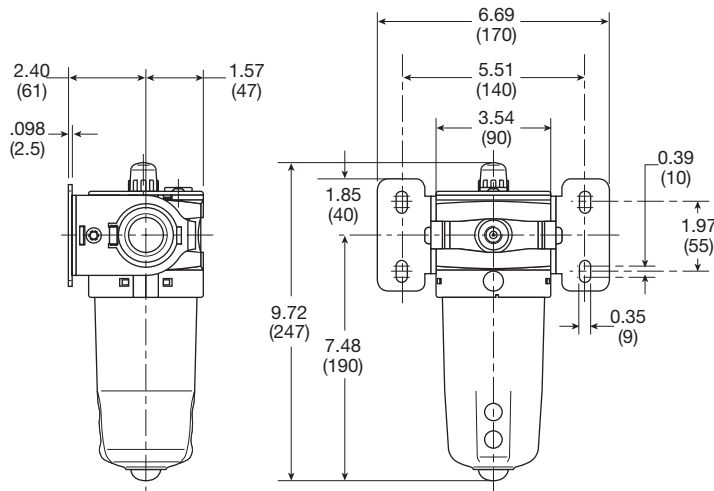
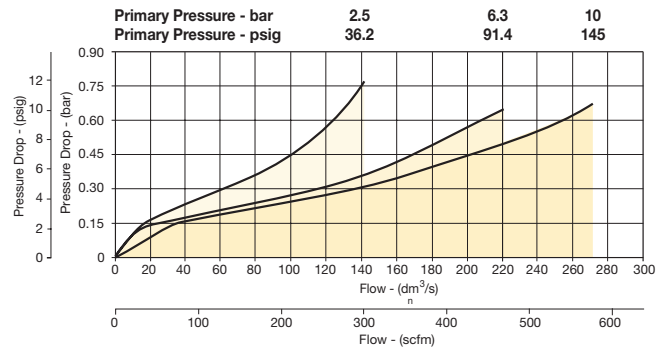
Bowl kit	P3YKA00BSN
Refill plug	P3YKA00PL
Oil (1 quart)	F442001
Oil (1 gallon)	F442002
Oil (12 quart case)	F442003
Oil (4 gallon case)	F442005

Flow Characteristics

(3/4") Lubricator



(1") Lubricator

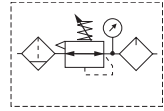


Inches (mm)

P3Y Combinations



Filter + Regulator + Lubricator Combinations 5 micron element, 12 bar (174 psig) regulator + gauge and wall mounting bracket

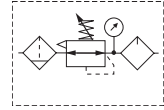


Port size	Flow [‡] scfm	Weight lb (kg)	Combined manual / semi-auto drain [†]	Auto drain [†]
3/4"	170	7.3 (3.3)	P3YCB96SECNFLNF	P3YCB96SEANFLNF
1"	170	7.3 (3.3)	P3YCB98SECNFLNF	P3YCB98SEANFLNF

[†] Standard part numbers shown in bold. For other models refer to Options chart below.
[‡] Flow with 10 bar (145 psig) inlet pressure, 6.3 bar (91.4 psig) set pressure and 1 bar (14.5 psig) pressure drop.



Filter / Regulator + Lubricator Combinations 5 micron element, 12 bar (174 psig) regulator + gauge and wall mounting bracket



Port size	Flow [‡] scfm	Weight lb (kg)	Combined manual / semi-auto drain [†]	Auto drain [†]
3/4"	315	6.2 (2.8)	P3YCA96SECNFLNF	P3YCA96SEANFLNF
1"	340	6.2 (2.8)	P3YCA98SECNFLNF	P3YCA98SEANFLNF

[†] Standard part numbers shown in bold. For other models refer to Options chart below.
[‡] Flow with 10 bar (145 psig) inlet pressure, 6.3 bar (91.4 psig) set pressure and 1 bar (14.5 psig) pressure drop.

Ordering Information:

P3YCA	9	6	SE	C	N	F	LNF																											
<table border="1"> <thead> <tr> <th colspan="2">Basic series</th> </tr> </thead> <tbody> <tr> <td>Filter / Regulator + Lubricator</td> <td>P3YCA</td> </tr> <tr> <td>Filter + Regulator + Lubricator</td> <td>P3YCB</td> </tr> </tbody> </table>	Basic series		Filter / Regulator + Lubricator	P3YCA	Filter + Regulator + Lubricator	P3YCB	<table border="1"> <thead> <tr> <th colspan="2">Thread type*</th> </tr> </thead> <tbody> <tr> <td>BSPP</td> <td>1</td> </tr> <tr> <td>NPT</td> <td>9</td> </tr> </tbody> </table>	Thread type*		BSPP	1	NPT	9	<table border="1"> <thead> <tr> <th colspan="2">Port size</th> </tr> </thead> <tbody> <tr> <td>3/4</td> <td>6</td> </tr> <tr> <td>1</td> <td>8</td> </tr> </tbody> </table>	Port size		3/4	6	1	8	<table border="1"> <thead> <tr> <th colspan="2">Drain type</th> </tr> </thead> <tbody> <tr> <td>C</td> <td>Combined manual / semi-auto drain</td> </tr> <tr> <td>A</td> <td>Auto drain</td> </tr> </tbody> </table>	Drain type		C	Combined manual / semi-auto drain	A	Auto drain	<table border="1"> <thead> <tr> <th colspan="2">Adjustment range</th> </tr> </thead> <tbody> <tr> <td>F</td> <td>0-12 bar (0 to 174 psi) with gauge</td> </tr> <tr> <td>J</td> <td>0-16 bar (0 to 232 psi) with gauge</td> </tr> </tbody> </table>	Adjustment range		F	0-12 bar (0 to 174 psi) with gauge	J	0-16 bar (0 to 232 psi) with gauge
Basic series																																		
Filter / Regulator + Lubricator	P3YCA																																	
Filter + Regulator + Lubricator	P3YCB																																	
Thread type*																																		
BSPP	1																																	
NPT	9																																	
Port size																																		
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* Note: For 1-1/2" ported unit, please order P3YKA*BCP port block kit separately.

⚠ WARNING

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

CAUTION:

REGULATOR PRESSURE ADJUSTMENT –

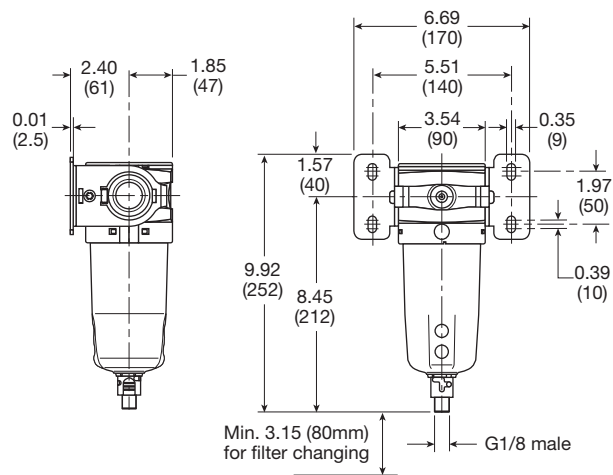
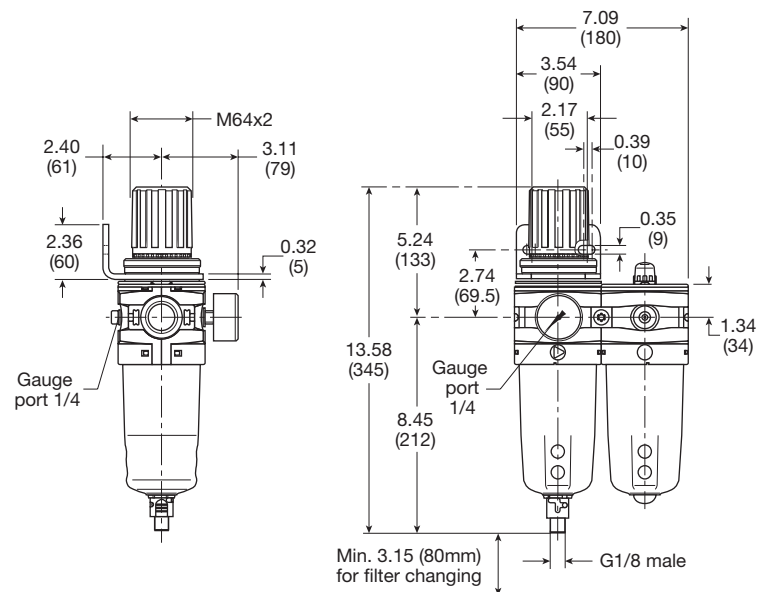
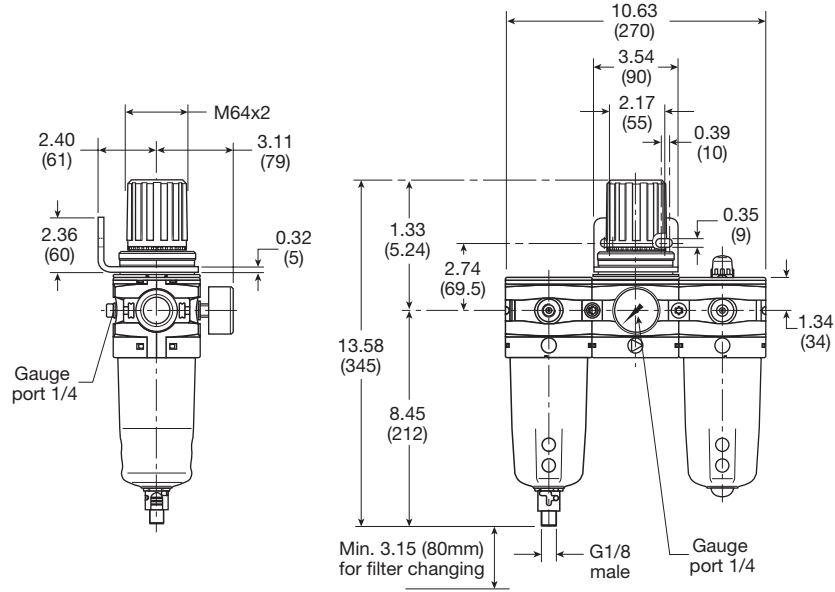
The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design. For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

Most popular.



For inventory, lead times, and kit lookup, visit www.pdnplu.com

P3Y Combinations

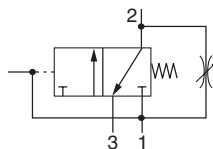


P3Y Combined Soft Start / Dump Valve

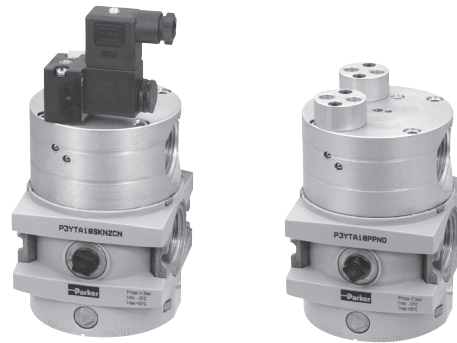
- Modular design with 3/4" & 1" integral ports (BSPP or NPT)
- Provides for the safe introduction of pressure
- Automatically dumps downstream pressure on the loss of pilot signal
- Adjustable slow start
- Solenoid or air pilot options
- High flow & exhaust capability

P3Y Series Combined Soft Start / Dump Valves, provide for the safe introduction of pressure to machines or systems. Soft Start / Dump Valves when set, allow the pressure to gradually build to the set point before fully opening to deliver full flow at line pressure.

The controlled introduction of pressure can be an important safety factor and prevent damage to tooling when air pressure is introduced at machine or system start up.



Port size	Description	Part number
3/4"	Air pilot operated	P3YTA96PPN
3/4"	24VDC 30mm coil	P3YTA96SCNA2CN
1"	Air pilot operated	P3YTA98PPN
1"	24VDC 30mm coil	P3YTA98SCNA2CN



Operating information

Operating pressure (max):	30mm coil	232 psig (16 bar)
Operating pressure (min):		2.9 psig (0.2 bar)
Operating temperature*:	Solenoid operated	14°F to 140°F (-10°C to 60°C)
	Air pilot operated	14°F to 140°F (-10°C to 60°C)
Air pilot port:		1/8"
Exhaust port:	NPT	3/4"
	BSPP	1"
Gauge port:		1/4"
Flow capacity†:	3/4"	371 scfm (175.1 dm³/s, ANR)
	1"	424 scfm (200.1 dm³/s, ANR)
Fluid:		Compressed air
Weight:	Air pilot	3.1 lb (1.4 kg)
	30mm coil	3.5 lb (1.6 kg)

† Inlet pressure 91.4 psig (6.3 bar) inlet pressure and 7.3 psig (0.5 bar) pressure drop.

* Air supply must be dry enough to avoid ice formation at temperatures below 35.6°F (2°C).

Snap pressure: Full flow when downstream pressure reaches 50% of the inlet pressure.

Ordering Information

P3YTA		9	6	P	C	N	Solenoid type only		
Basic series		Thread type*		Pilot type		Solenoid voltage			
Soft Start / Dump Valve P3YTA		BSPP 1 NPT 9		External air pilot P Solenoid pilot S		2CN 24VDC			
		Port size		Actuator interface			Solenoid type		
		3/4 6 1 8		30mm operator C Threaded air pilot P			A 30mm CNOMO coil D 30mm CNOMO coil (M12 connection)		

* Note: For 1-1/2" ported unit, please order P3YKA*BCP port block kit separately.

Most popular.



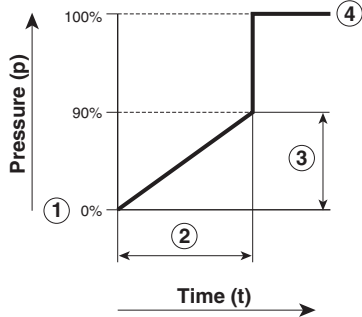
For inventory, lead times, and kit lookup, visit www.pdnplu.com

Material Specifications

Body	Aluminium
Body cover	ABS
Valve	Brass / NBR composite
Pilot valve booster	Aluminium
Seals	Nitrile NBR

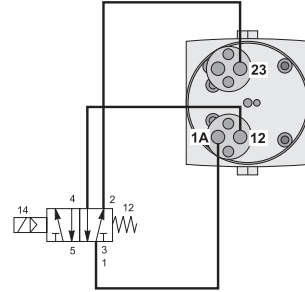
Note: For solenoid coil and cable plug options see solenoid operator pages.

Flow characteristics

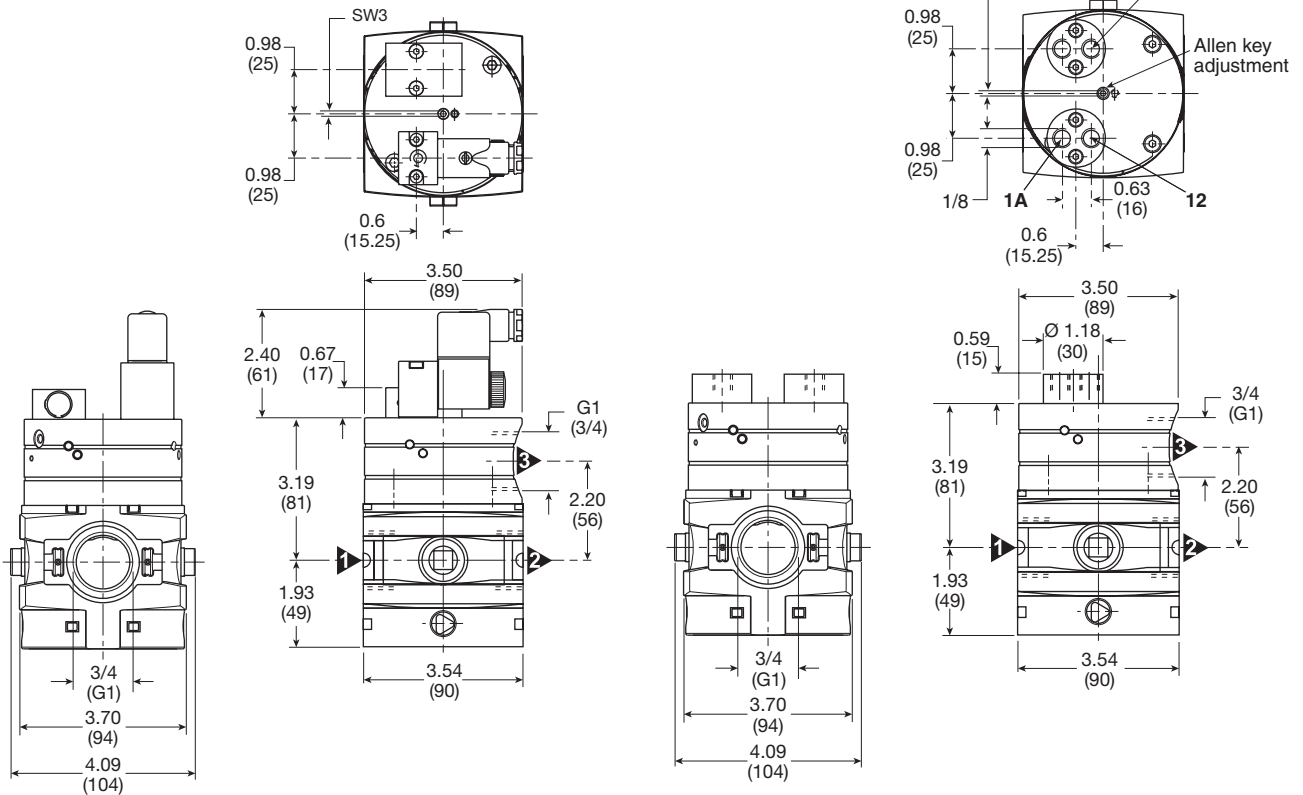
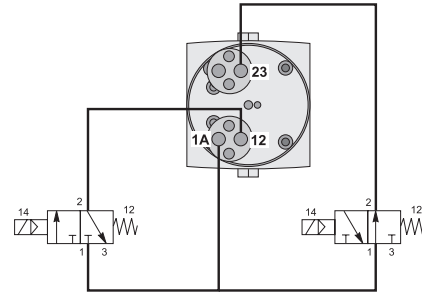


- ① Start signal
- ② Switching time delay
- ③ Gradual pressure build up
- ④ Operating pressure $p^2 (= p^1)$

Combined start / stop function



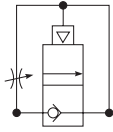
Combined start / stop function with acknowledgement



Inches (mm)

P3Y Soft Start Valve

- Integral 3/4" or 1" ports
- Smooth start-up of pneumatic system
- Air pilot operation
- Adjustable slow start
- High flow



Port size	Description	Part number
3/4"	Soft start valve	P3YSA96Y0N
1"	Soft start valve	P3YSA98Y0N

Material specifications

Body	Aluminium
Body cover	ABS
Valve	Brass / NBR composite
Pilot valve booster	Aluminum
Seals	Nitrile NBR

Operating information

Operating pressure (max):	254 psig (17.5 bar)
Operating pressure (min):	29 psig (2 bar)
Operating temperature*:	
Solenoid operated	14°F to 140°F (-10°C to 60°C)
Air pilot operated	14°F to 140°F (-10°C to 60°C)
Flow capacity†:	
3/4"	324 scfm (152.9 dm³/s, ANR)
1"	324 scfm (152.9 dm³/s, ANR)
Fluid:	Compressed air
Weight:	1.8 lb (0.8 kg)

† Inlet pressure 91.4 psig (6.3 bar) inlet pressure and 7.3 psig (0.5 bar) pressure drop.

* Air supply must be dry enough to avoid ice formation at temperatures below 35.6°F (2°C).

Snap pressure: Full flow when downstream pressure reaches 50% of the inlet pressure.

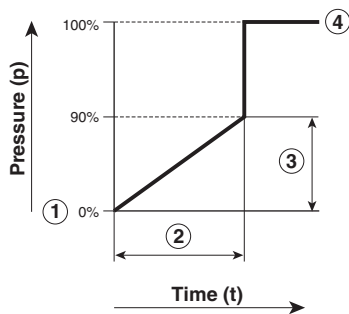
Ordering Information

P3YSA 9 6 Y 0 N

Basic series		Thread type*		Port size	
Soft Start Valve	P3YSA	BSPP	1	3/4	6
		NPT	9	1	8

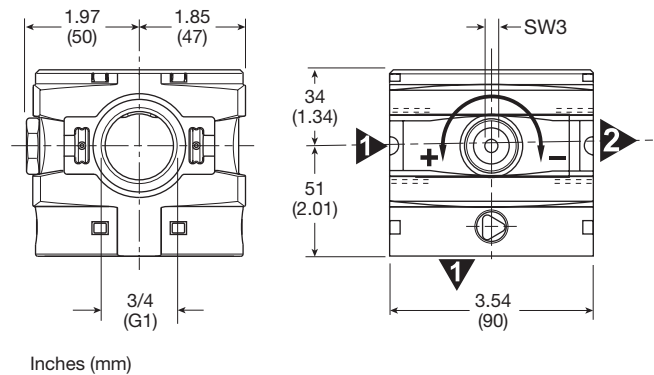
* Note: For 1-1/2" ported unit, please order P3YKA*BCP port block kit separately.

Flow characteristics



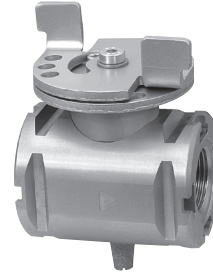
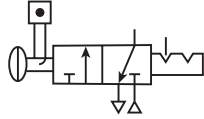
- Start signal
- Switching time delay
- Gradual pressure build up
- Operating pressure $p^2 (= p^1)$

Most popular.



P3Y Modular Ball Valve

- Positive bubble tight shut-off
- 90° turn handle to prevent unauthorized adjustment
- Pad lockable (up to 6 times)
- When the inlet pressure is turned off the downstream vents through the exhaust port



Ball / Lockout Valve shuts off downstream line pressure in the closed position with a 90° turn of the handle. In the closed position, inlet air pressure is blocked and downstream / system air is exhausted through a threaded port. To prevent unauthorized adjustment, the padlock slide may be assembled on either side. It is recommended that this slide is installed after final system assembly.

The Safety Lockout valves conform to OSHA #29 CFR part 1910 – control of hazardous energy source (lockout / tagout).

Operating information

Operating pressure (max):	254 psig (17.5 bar)
Operating pressure (min):	29 psig (2 bar)
Operating temperature:	14°F to 140°F (-10°C to 60°C)
Flow capacity [†] :	3/4" 705.6 scfm (333 dm ³ /s, ANR)
	1" 705.6 scfm (333 dm ³ /s, ANR)
Weight:	3/4" 2.4 lb (1.1 kg)
	1" 2.4 lb (1.1 kg)

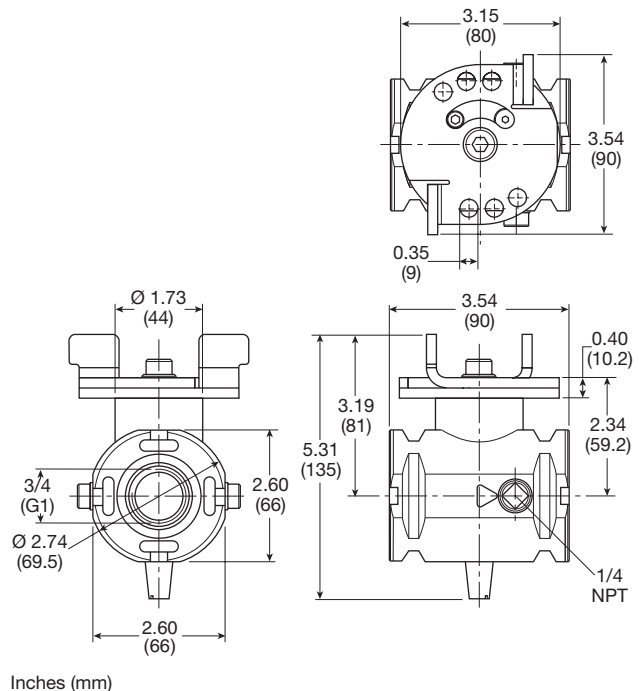
Ordering Information

P3YVA		9	6	LBN
Basic series		Thread type*	Port size	
Modular Ball Valve	P3YVA	BSPP	1	3/4 6
		NPT	9	1 8

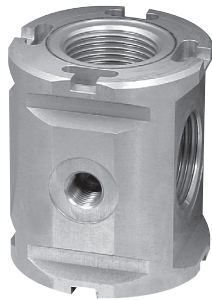
* Note: For 1-1/2" ported unit, please order P3YKA*BCP port block kit separately.

Material Specifications

Body	Aluminium
Valve ball	Brass / nickle plated
Handle	Aluminum
Seals	Nitrile NBR
Exhaust silencer	Sintered bronze



Modular Manifold



P3Y Series Manifolds provide up to 4 extra outlet ports. They may be assembled at any position in a combination e.g. before the lubricator to provide oil free take off or at the end of a combination to provide extra outlet ports.

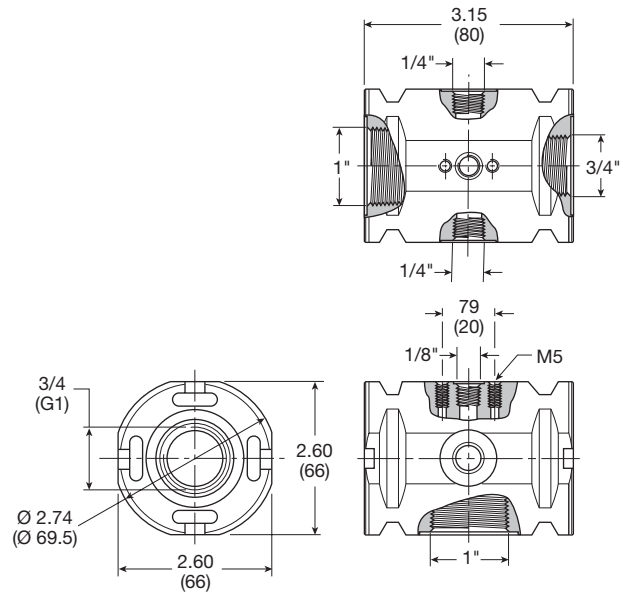
Thread type	Part number
BSPP	P3YMA1V0N
NPT	P3YMA9V0N

Port sizes

Inlet port	Top	Bottom	Front and Back
3/4"	1/8"	1"	1/4"
1"	1/8"	1"	1/4"

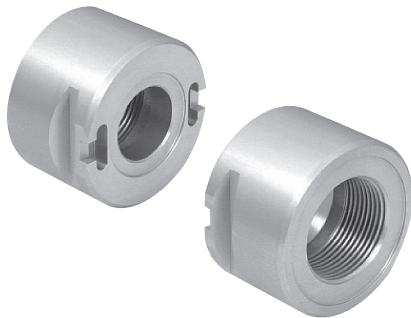
Material Specifications

Body	Aluminium
Weight	0.7 kg (1.5 lb)



Inches (mm)

Optional Port Block Kits



- To change port sizes Port Block Kits are available, they are attached to any unit utilizing the connecting kit.
- Allows assemblies to be removed from a hard piped system.

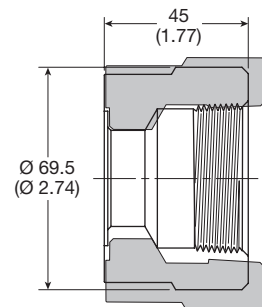
Material specifications

Body	Aluminium
Weight	0.65 kg (1.43 lb)

Ordering Information

P3YKA 9 B CP

Basic series	Thread type	Port size
Port Blocks P3YKA	BSPP 1	1-1/2 B
	NPT 9	



Inches (mm)

Solenoid Operators - CNOMO

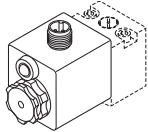
Technical Data -

Solenoid operators, coil combinations

	NC Normal Operator with 22 x 30 standard coil	NC Normal Operator with 30 x 30 standard coil
Working pressure	0 to 10 bar	0 to 10 bar
Ambient temperature	-10°C to 60°C *	-10°C to 60°C *
Power (DC)	4.8W	2.7W
Power (AC)	8.5VA	4.9VA
Voltage tolerance	+/-10%	+/-10%
Duty cycle	100%	100%
Insulation class	F	F
Electric connection	B Industrial	DIN 43650A
Protection	IP65	IP65
Approval		UL/CSA
Working media	All neutral media such as compressed air	

* Limited to 50°C if use with 100% duty cycle

Solenoid Coils with M12 Connection



Voltage	Part number	Weight (Kg)
Direct current		
24VDC	P2FC6449	0.065

Transients

Interrupting the current through the solenoid coil produces momentary voltage peaks which, under unfavorable conditions, can amount to several hundred times the rated operating voltage. Normally, these transients do not cause problems, but to achieve the Maximum life of relays in the circuit (and particularly of transistors, thyristors and integrated circuits) it is desirable to provide protection by means of voltage-dependent resistors (varistors). All connectors/cable plugs EN175301-803 with LED's include this type of circuit protection.

Materials

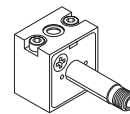
Pilot Valve

Body:	Polyamide
Armature tube:	Brass
Plunger & core:	Corrosion resistant Cr-Ni steel
Seals:	Fluorocarbon
Screws:	Stainless steel

Coil

Encapsulation material:	Thermoplastic as standard Duroplast for M12 connection
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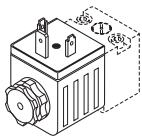
Spare Base Solenoid Pilot Operator CNOMO NC



Description	Part number	Weight (Kg)
Non-lock Manual Override	P2FP23N4B	0.065
No Override	P2FP23N4A	0.065

Note: Solenoid pilot operators are fitted to the Global range. Order the above part numbers for spares. The operators are supplied with mounting screws and interface 'O' rings. Coils and connectors must be ordered separately.

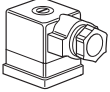
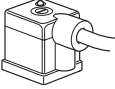
Solenoid Coils with DIN A or Industrial B Connection



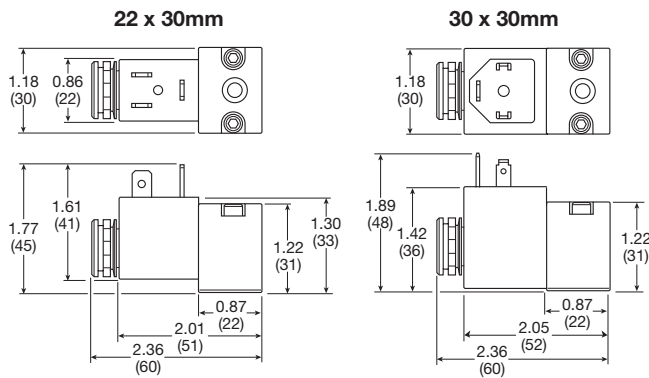
Voltage	22mm x 30mm Part number B industrial standard	Weight (Kg)	30mm x 30mm Part number DIN 43650A standard	Weight (Kg)
Direct current				
24VDC	P2FCB449	0.093	P2FCA449	0.105
Alternative current				
110V 50Hz, 120V 60Hz	P2FCB453	0.093	P2FCA453	0.105

Most popular.

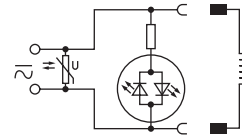
Solenoid Connectors / Cable Plugs EN175301-803

	Description	Part number 22mm Form B Industrial	Part number 30mm Form A DIN 43650A
	With standard screw	PS2429BP	PS2028BP
	Standard IP65 without flying lead		
	With LED and protection 24VAC/DC	PS243079BP	PS203279BP
	With LED and protection 110VAC	PS243083BP	PS203283BP
	With cable	PS2429JBP	PS2028JCP
	Standard with 2m cable IP65		
	24VAC/DC, 2m cable LED and protection IP65	PS2430J79BP	PS2032J79CP
	110VAC/DC, 2m cable LED and protection IP65	PS2430J83BP	PS2032J83CP

Solenoid coil dimensions mm (inches)



Electrical schematics

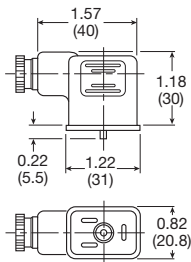


PS243079BP	PS203279BP
PS2430J79BP	PS2032J79CP
PS243083BP	PS203283BP
PS2430J83BP	PS2032J83CP
PS294679BP	PS294683BP
PS2946J79BP	PS2946J83BP

Cable plug dimensions mm (inches)

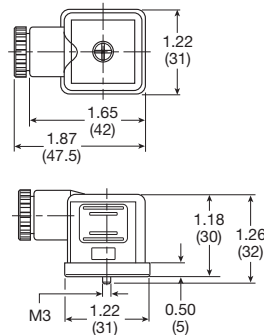
22mm Form B industrial cable plugs

PS2429BP



30mm DIN 43650A cable plugs






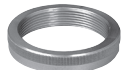

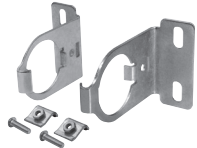
PS2028BP



 Most popular.



For inventory, lead times, and kit lookup, visit www.pdnplu.com

Description	Connection	Weight lb (kg)	Part number		
0.01 micron element kit			P3YKA00ESC		
5 micron element kit			P3YKA00ESE		
Adsorber element kit			P3YKA00ESA		
Angle bracket + metal lock ring			P3YKA00MS		
Bowl kit with combined manual / semi-auto drain			P3YKA00BSC		
Bowl kit with auto drain			P3YKA00BSA		
Bowl kit			P3YKA00BSN		
Connector o-ring kit	Qty: 5		P3YKA08CY		
Differential pressure indicator kit			P3YKA00RQ		
Diaphragm kit (relieving type)			P3YKA00RR		
Diaphragm kit (non-relieving type)			P3YKA00RN		
Key lock (replacement)			P3XKA00AS		
Lubricator oil	F442001 - 1 Qt.	2.03 (0.92)	F442001		
	F442002 - 1 Gal		F442002		
Neck mounting bracket kit		8.27 (3.75)	P3YKA00MS		
P3Y connecting kit		0.11 (0.05)	P3YKA00CB		
Panel mounting nut (aluminium)		1.54 (0.70)	P3YKA00MM		
Pressure gauge	0 to 160 psig (0 to 10 bar)	1/4"	0.13 (0.06)	K4520N14160	
	0 to 300 psig (0 to 20 bar)	1/4"	0.13 (0.06)	K4520N14300	
Refill plug			P3YKA00PL		
Wall mounting brackets		0.44 (0.2)	P3YKA00CW		

 Most popular.



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