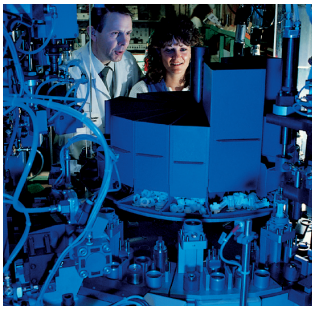

aerospace
climate control
electromechanical
filtration
fluid & gas handling
hydraulics
pneumatics
process control
sealing & shielding

P3X Lite Series
Air Preparation System

G1/2 & G3/4 Body ported

Catalogue no. PDE2620TCUK July 2020

Parker

ENGINEERING YOUR SUCCESS.

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WARNING

FAILURE OR IMPROPER SELECTION OR IMPROPER USE OF THE PRODUCTS AND/OR SYSTEMS DESCRIBED HEREIN OR RELATED ITEMS CAN CAUSE DEATH, PERSONAL INJURY AND PROPERTY DAMAGE.
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SALE CONDITIONS

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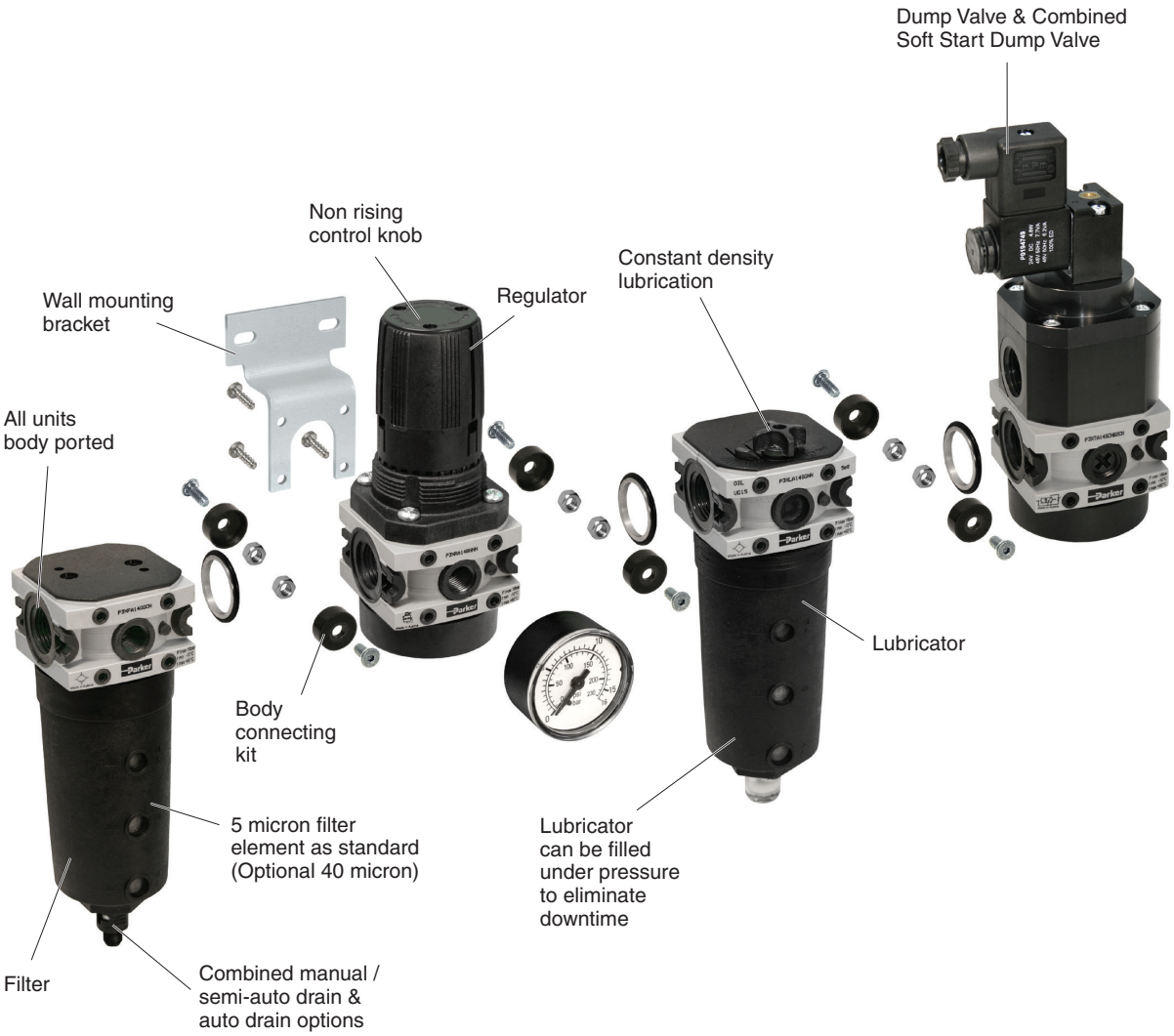
The System

The P3X system allows units to be connected together, without the use of pipe connectors, saving space; providing constant mounting centres; whilst maintaining a modern aesthetically pleasing appearance.

The P3X 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 P3X series.

The P3X 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 other demanding applications.

The P3X mist lubricators are designed to provide lubrication for many general purpose applications in a pneumatic system.



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New Technology

The P3X Lite FRL system is constructed from ultra light weight technopolymers instead of the traditional aluminium or zinc die cast, this means that is up to 45% lighter than conventional units. This non-metal construction also means that the P3X Lite is corrosion free enabling it to be used in harsh industrial environments where anti freeze or aggressive synthetic oils are present.

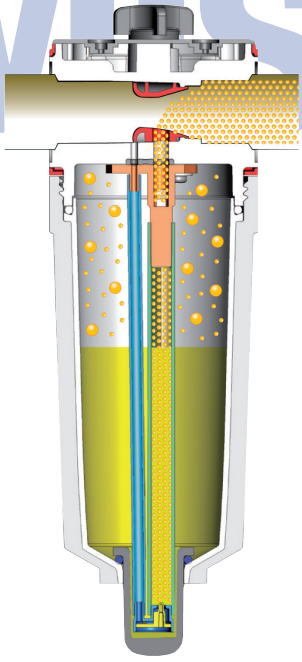
The use of technopolymers in the design of P3X Lite has facilitated a universal body design, this has resulted in reducing the number of variants required to cover the full spectrum of applications. This can dramatically lower logistic costs and simplify stock holding for customers making the P3X Lite a very cost effective solution.

Nano Mist

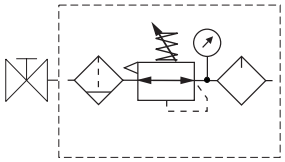
New Nano Mist Technology, New Lubricator Concept. Self-Adjusting.

With conventional lubricators, only the oil volume per time unit can be adjusted. If the demand changes, the quantity dispensed still remains constant.

The P3X Lite lubricator concept sets new benchmarks here. For the first time, the oil volume is automatically adjusted to the flow rate. This ensures that there is neither too little nor too much oil in the system, which leads to clear economic and ecological advantages. In addition, with conventional systems, the distance between the lubricator and the equipment has to be less than 8 meters. With larger distances, the dispensed oil is deposited as a wall flow.
The new lubricator principle of the P3X Lite allows for distances of up to 40 meters. This opens up new scope for the design of even more efficient production systems.

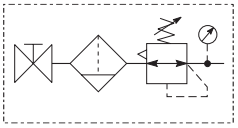


Popular Combinations



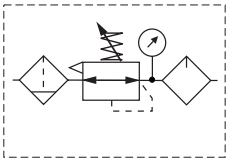
Slide Valve + Filter/Regulator + Lubricator Combinations (50mg/m³)
5 micron element, 8 bar Regulator + Gauge and Wall Mounting Brackets

Port size	Combined Manual/Semi-Auto Drain	Flow dm³/s	Weight (g)	Auto Drain	Flow dm³/s	Weight (g)
G1/2	**P3XAA14GECNGPNW**	76	1300	**P3XAA14GEANGPNW**	76	1300
G3/4	**P3XAA16GECNGPNW**	77	1300	**P3XAA16GEANGPNW**	77	1300



Slide Valve + Filter/Regulator Combinations
5 micron element, 8 bar Regulator + Gauge and Wall Mounting Brackets

Port size	Combined Manual/Semi-Auto Drain	Flow dm³/s	Weight (g)	Auto Drain	Flow dm³/s	Weight (g)
G1/2	**P3XAN14GECNGW**	105	950	**P3XAN14GEANGW**	105	950
G3/4	**P3XAN16GECNGW**	106	950	**P3XAN16GEANGW**	106	950



Filter/Regulator + Lubricator Combinations (50mg/m³)
5 micron element, 8 bar Regulator + Gauge and Wall Mounting Brackets

Port size	Combined Manual/Semi-Auto Drain	Flow dm³/s	Weight (g)	Auto Drain	Flow dm³/s	Weight (g)
G1/2	**P3XCA14GECNGPNW**	76	1000	**P3XCA14GEANGPNW**	76	1000
G3/4	**P3XCA16GECNGPNW**	77	1000	**P3XCA16GEANGPNW**	77	1000

Options:

P 3 X [ ] [ ] [ ] **G E** [ ] [ ] [ ] [ ] **W**

Filter/Reg + Lubricator	CA
Slide valve + Filter/Reg	AN
Slide valve + Filter/Reg + Lubricator	AA

BSPP (G)	1
NPT *	9

Combined Manual/Semi Auto Drain	C
Auto Drain	A

0 - 8 bar with gauge	G
0 - 16 bar with gauge	J

1/2	4
3/4	6

Non rise - Standard	N
Tamperproof - Lockable	A

(50mg/m³)	PN	Add only for options with lubricator
(5mg/m³)	SN	

* NPT ports on request 1/2" size only

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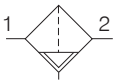
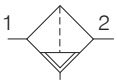
Filter

Symbols



Manual / Semi auto drain



Auto drain

- Integral 1/2 or 3/4” ports
- 2 stage filtration
- High efficiency 5µ particulate element as standard
- Excellent water removal efficiency
- Low temperature -40°C with combined manual/semi - auto drain as standard

Options:

P 3 X F A [ ] [ ] [ ] **G** [ ] **N**

BSPP (G)	**1**
NPT *	**9**

* NPT ports on request 1/2” size only

1/2	**4**
3/4	**6**

5 Micron Element Standard	**E**
40 Micron Element Optional	**G**
1 Micron Dust Filter	**2**

Combined Manual/Semi Auto Drain	**C**
Auto Drain	**A**

Port size	Description	Order Code	Flow dm^3/s *	Max bar	Min temp °C	Max temp °C	Bowl capacity cm^3	Height mm	Width mm	Depth mm	Weight g
1/2	Combined manual/ semi auto drain	**P3XFA14EGCN**	55	16	-40	60	60	192	62	62	320
1/2	Auto drain	**P3XFA14EGAN**	55	16	-10	60	60	192	62	62	320
3/4	Combined manual/ semi auto drain	**P3XFA16EGCN**	57	16	-40	60	60	192	62	62	320
3/4	Auto drain	**P3XFA16EGAN**	57	16	-10	60	60	192	62	62	320

* flow with 6,3 bar inlet pressure and 0,5 pressure drop.

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Technical Information

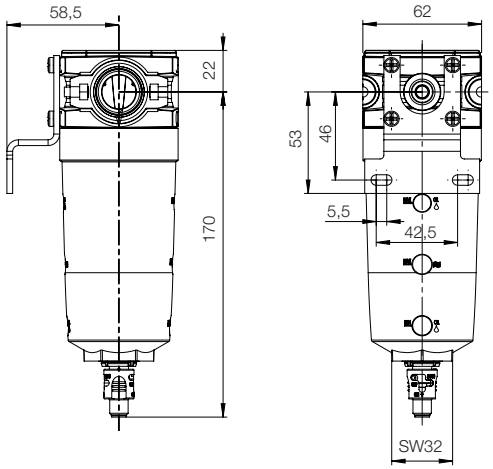
Fluid:	Compressed air
Maximum inlet pressure:	16 bar
Temperature range*: Auto drain: Combined drain:	 -10°C to +60°C -40°C to +60°C
Particle removal:	1, 5 & 40 micron
Air quality:	Within ISO 8573-1 : 1991 Class 3 and 5 (particulates) Within ISO 8573-1 : 2001 Class 6 and 7 (particulates)
Typical flow with 5µm element 6,3 bar inlet pressure and 0.5 bar pressure drop:	1/2" size 55 dm^3/s
Semi-auto drain: bowl pressure to close drain	 0.8 bar
Auto drain: bowl pressure to close drain Operating range manual override facility	 0.8 bar 0.8 to 16 bar
Bowl sump capacity:	60 cm^3

* Air supply must be dry enough to avoid ice formation at temperatures below +2°C

Material Specification

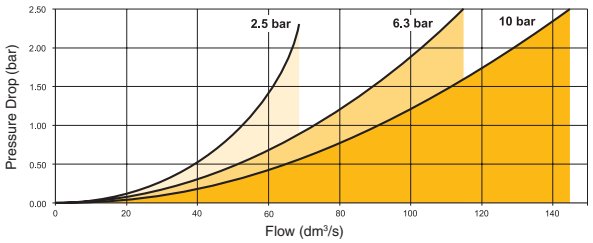
Body:		High tech polymer
Sight glass:		Polypropylene
Body cover:		ABS
Element:		Sintered P.E.
Seals:		Nitrile NBR
Drains:	Manual / Semi-auto:	Acetal
	Automatic:	PA / Brass

Dimensions (mm)

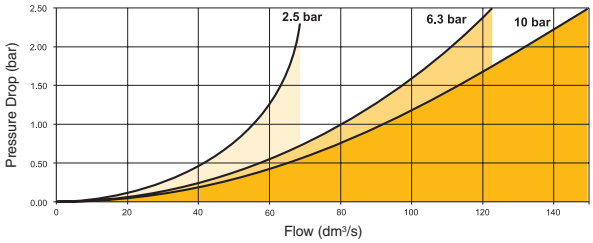


Flow characteristics

(1/2) 5 Micron Filter



(3/4) 5 Micron Filter



Service kits

Description	Order code
5 micron element kit	**P3XKA00ESE**
40 micron element kit	**P3XKA00ESG**
Bowl kit with combines manual/semi auto drain	**P3XKA00BSC**
Bowl kit with auto drain	**P3XKA00BSA**
1 micron element kit	**P3XKA00ES9**

Coalescing Filter

- Integral 1/2 or 3/4 ports
- Removes liquid aerosols and sub micron particles
- Oil free air for critical applications, such as air gauging, pneumatic instrumentation and control

Note: To optimise the life of the coalescing element, it is advisable to install a P3XFA pre-filter with a 5 micron element upstream of the coalescing filter.

Options:

P 3 X F A					G		N
BSPP (G) 1 NPT * 9		1/2 4 3/4 6		0.01 µm element with DPI standard D	Combined Manual/Semi Auto Drain C Auto Drain A		

* NPT ports on request 1/2" size only

Port size	Description	Order Code	Flow dm^3/s *	Max bar	Min temp °C	Max temp °C	Bowl capacity cm^3	Height mm	Width mm	Depth mm	Weight g
1/2	Coalescing Filter 0.01µm, Combined manual/semi auto drain	**P3XFA14DGCN**	24	16	-10	60	60	217	62	62	320
1/2	Coalescing Filter 0.01µm, auto drain	**P3XFA14DGAN**	24	16	-10	60	60	217	62	62	320
3/4	Coalescing Filter 0.01µm, Combined manual/semi auto drain	**P3XFA16DGCN**	24	16	-10	60	60	217	62	62	320
3/4	Coalescing Filter 0.01µm, auto drain	**P3XFA16DGAN**	24	16	-10	60	60	217	62	62	320

* flow with 6,3 bar inlet pressure and 0,2 pressure drop.

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Technical Information

Fluid:	Compressed air
Maximum inlet pressure:	16 bar
Temperature range*:	-10°C to +60°C
Media specifications: Coalescing efficiency Max. oil carryover (PPM w/w):	 (0.3 to 0.6 micron particles): 99.97% 0.008 mg/m^3
Typical flow element @ 6,3 bar inlet pressure and 0.2 bar pressure drop:	 16 dm^3/s
Manual / Semi-auto drain: Bowl pressure to close drain	 0.8 bar
Auto drain: bowl pressure to close drain Operating range manual override facility	 0.8 bar 0.8 to 16 bar
Bowl sump capacity:	60 cm^3

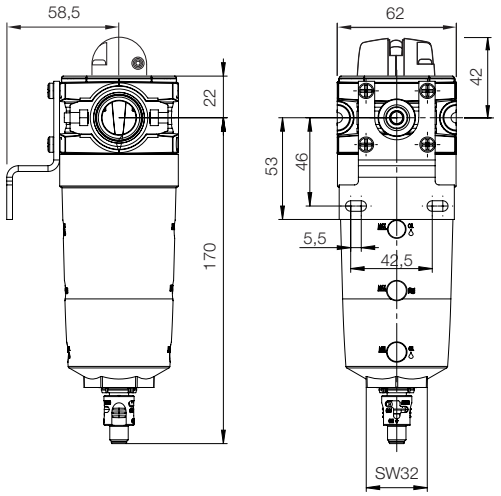
* Air supply must be dry enough to avoid ice formation at temperatures below +2°C

Material Specification

Body:		High tech polymer
Sight glass:		Polypropylene
Filter cover:		ABS
Coalescing element:		Borosilicate & Nano fibres
Top & bottom end cap:		Glass filled nylon - Black
Support cylinders:		Grade 430 stainless steel
Support media:		Polypropylene
Anti re-entrainment barrier:		Polyester
Ensapulate:		Epoxy resin / Hardener
Seals:		Nitrile NBR
Drains:	Manual / Semi-auto:	Acetal
	Automatic:	PA / Brass

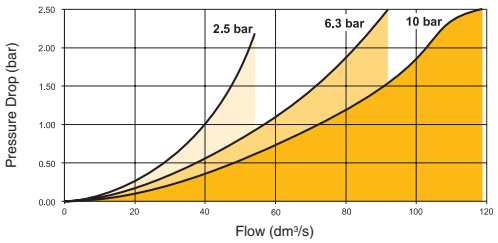
Differential pressure indicator materials:	
Body:	Acetal
Internal parts:	Acetal
Spring:	Stainless steel
Seals:	Nitrile NBR
Screws:	Steel / zinc plated

Dimensions (mm)

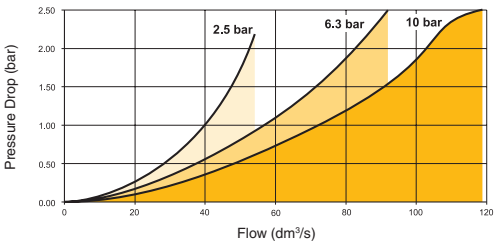


Flow characteristics

(1/2) 0.01µm Coalescing Filter Saturated



(3/4) 0.01µm Coalescing Filter Saturated



Service kits

Description	Order code
0.01 micron coalescing element kit	**P3XKA00ESC**
Bowl kit with combines manual/semi auto drain	**P3XKA00BSC**
Bowl kit with auto drain	**P3XKA00BSA**
Differential pressure indicator kit	**P3XKA00RQ**

Adsorber Filter

- Integral 1/2 or 3/4 ports
- Adsorber activated carbon element removes oil vapours and most hydrocarbons

Note: To optimise the life of the adsorber element, it is advisable to install a P3X coalescing 0.01 µm filter upstream of the adsorber filter.

Options:

P 3 X F A			A	G C N
	BSPP (G) **1**	1/2 **4**	Adsorber element **A**	
	NPT * **9**	3/4 **6**		

* NPT ports on request 1/2" size only

Port size	Description	Order Code	Flow dm^3/s *	Max bar	Min temp °C	Max temp °C	Bowl capacity cm^3	Height mm	Width mm	Depth mm	Weight g
1/2	Adsorber Filter, Manual / Semi-auto drain	**P3XFA14AGCN**	18	16	-10	60	60	192	62	62	320
3/4	Adsorber Filter, Manual / Semi-auto drain	**P3XFA16AGCN**	18	16	-10	60	60	192	62	62	320

* flow with 6,3 bar inlet pressure and 0,2 pressure drop.

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Technical Information

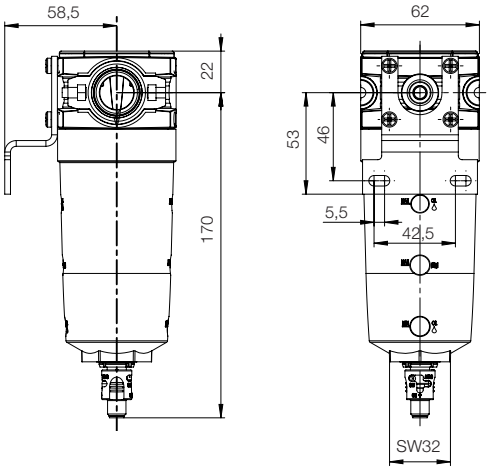
Fluid:	Compressed air
Maximum inlet pressure:	16 bar
Temperature range*:	-10°C to +60°C
Typical flow at 6,3 bar inlet pressure and 0.2 bar pressure drop:	Adsorber 18 dm^3/s
Manual / Semi-auto drain:	1/8" connection
to close connection	0.8 bar

* Air supply must be dry enough to avoid ice formation at temperatures below +2°C

Material Specification

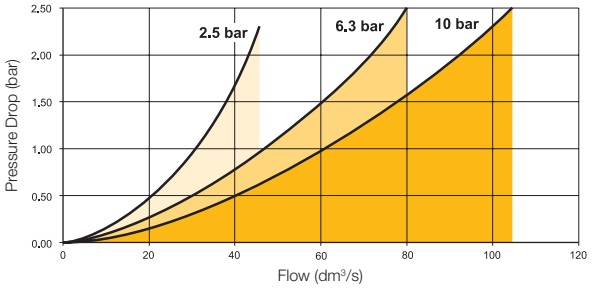
Body:	High tech polymer
Sight glass:	Polypropylene
Filter cover:	ABS
Adsorber element:	Activated carbon
Top & bottom endcap:	Glass filled nylon
Support cylinders:	Grade 430 stainless steel
Support media:	100% spun polypropylene
Support sock:	Polyester needlefelt
Encapsulant:	Epoxy resin / Hardener
Seals:	Nitrile NBR
Drain: Manual / Semi-auto	Acetal

Dimensions (mm)

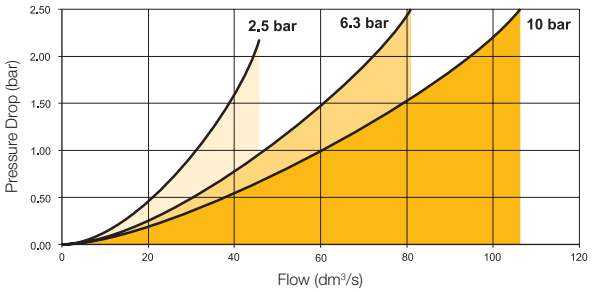


Flow characteristics

(1/2) Adsorber Filter



(3/4) Adsorber Filter

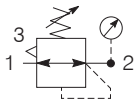


Service kits

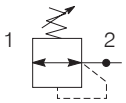
Description	Order code
Adsorber element kit	**P3XKA00ESA**
Bowl kit with manual drain	**P3XKA00BSC**

Regulator

Symbols



Self relieving regulator with gauge



Non relieving regulator

- Integral 1/2 or 3/4 ports
- Secondary pressure ranges 8 & 16 bar
- Rolling diaphragm for extended life
- Secondary aspiration plus rolling diaphragm provides quick response and accurate pressure regulation.
- Optional tamperproof regulator, up to x 3 padlocks
- Relieving & Non-relieving types
- Low temperature -40°C as standard

Options:

P 3 X R A [ ] [ ] [ ] [ ] [ ] **N**

BSPP (G)	**1**
NPT *	**9**

* NPT ports on request 1/2" size only

1/2	**4**
3/4	**6**

Relieving	**B**
Non-relieving	**N**

Non rise - standard	**N**
Tamperproof - Lockable	**A**

0 - 4 bar No Gauge	**L**
0 - 8 bar No Gauge	**N**
0 - 16 bar No Gauge	**H**
0 - 4 bar Gauge	**M**
0 - 8 bar Gauge	**G**
0 - 16 bar Gauge	**J**

Port size	Description	Order Code	Flow dm^3/s *	Max bar	Min temp °C	Max temp °C	Height mm	Width mm	Depth mm	Weight g
1/2	8 bar relieving	**P3XRA14BNNN**	122	16	-40	60	150	62	62	360
1/2	8 bar relieving + pressure gauge	**P3XRA14BNGN**	122	16	-10	60	150	62	95	410
3/4	8 bar relieving	**P3XRA16BNNN**	134	16	-40	60	150	62	62	360
3/4	8 bar relieving + pressure gauge	**P3XRA16BNGN**	134	16	-10	60	150	62	95	410
1/2	8 bar relieving with tamperproof facility	**P3XRA14BANN**	122	16	-40	60	158	62	62	360
1/2	8 bar relieving with tamperproof facility + pressure gauge	**P3XRA14BAGN**	122	16	-10	60	158	62	95	410
3/4	8 bar relieving with tamperproof facility	**P3XRA16BANN**	134	16	-40	60	158	62	62	360
3/4	8 bar relieving with tamperproof facility + pressure gauge	**P3XRA16BAGN**	134	16	-10	60	158	62	95	410

* flow with 10 bar inlet pressure, 6,3 bar set pressure and 1 bar pressure drop.

Tamperproof regulator will require lock kit (on opposite page) to lock regulator.

Technical Information

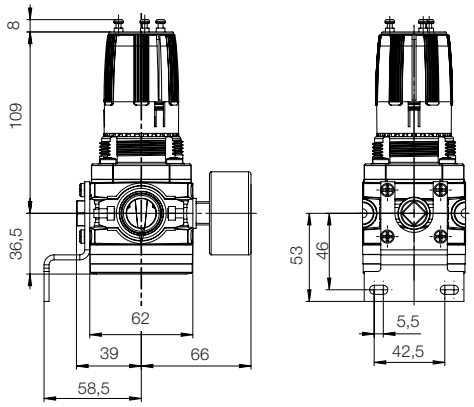
Fluid:	Compressed air
Maximum inlet pressure:	16 bar
Temperature range*:	-40°C to +60°C
Typical flow with 10 bar inlet pressure, 6.3 bar set pressure and 1 bar pressure drop:	1/2" 122 dm^3/s 3/4" 134 dm^3/s
Gauge port (x 2):	1/4"

* Air supply must be dry enough to avoid ice formation at temperatures below +2°C

Material Specification

Body:	High tech polymer
Bonnet:	High tech polymer
Regulator cover:	ABS
Control Knob:	Polyamide
Valve:	Brass / Nitrile
Seals:	Nitrile NBR
Screws:	Stainless steel

Dimensions (mm)



Service kits

Description	Order code
Wall bracket - Stainless steel	**P3XKA00MW**
Panel mounting nut	**P3XKA00MM**
Key lock	**P3XKA00AS**
Diaphragm kit (relieving type)	**P3XKA00RR**
Diaphragm kit (non-relieving type)	**P3XKA00RN**

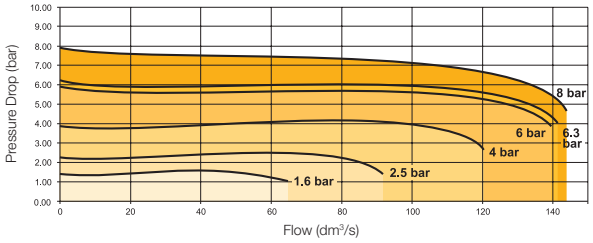
Lockable Tamperproof Kit (up to x 3 padlocks)

This facilitates the tamperproofing of the Regulator and Filter-Regulator units. (On request)

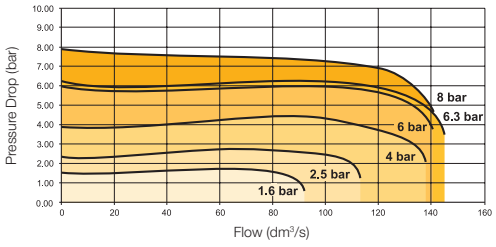
	Order code
1 Padlock each	**P3XKA00AS**

Flow characteristics

Regulation characteristics: (1/2)

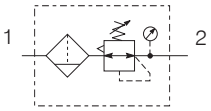


Regulation characteristics: (3/4)



Filter-Regulator

Symbols



- Integral 1/2 or 3/4 ports
- High efficiency 5 micron element as standard
- Excellent water removal efficiency
- Secondary pressure ranges 8 and 16 bar
- Rolling diaphragm for extended life
- Secondary aspiration plus balanced poppet provides quick response and accurate pressure regulation.
- Low temperature -40°C with combined manual/semi - auto drain as standard

Options:

P 3 X E A [ ] [ ] [ ] **G** [ ] [ ] [ ] [ ] **N**

BSPP (G)	1
NPT *	9

1/2	4
3/4	6

* NPT ports on request 1/2" size only

5 Micron Element Standard	E
40 Micron Element Option	G

Combined Manual/Semi Auto Drain	C
Auto Drain	A

Non Relieving	N
Relieving	B

Non rise - Standard	N
Tamperproof - Lockable	A

0 - 4 bar No Gauge	L
0 - 8 bar No Gauge	N
0 - 16 bar No Gauge	H
0 - 4 bar Gauge	M
0 - 8 bar Gauge	G
0 - 16 bar Gauge	J

Port size	Description	Order Code	Flow dm^3/s *	Max bar	Min temp °C	Max temp °C	Bowl capacity cm^3	Height mm	Width mm	Depth mm	Weight g
1/2	8 bar, relieving, Combined manual/semi auto drain	**P3XEA14EGCBNNN**	111	16	-40	60	60	280	62	62	500
1/2	8 bar relieving, auto drain	**P3XEA14EGABNNN**	111	16	-10	60	60	280	62	62	500
1/2	8 bar, relieving, gauge Combined manual/semi auto drain	**P3XEA14EGCBNGN**	111	16	-10	60	60	280	62	62	550
1/2	8 bar relieving, gauge, auto drain	**P3XEA14EGABNGN**	111	16	-10	60	60	280	62	62	550
3/4	8 bar, relieving, Combined manual/semi auto drain	**P3XEA16EGCBNNN**	113	16	-40	60	60	280	62	62	500
3/4	8 bar relieving, auto drain	**P3XEA16EGABNNN**	113	16	-10	60	60	280	62	62	500
3/4	8 bar, relieving, gauge Combined manual/semi auto drain	**P3XEA16EGCBNGN**	113	16	-10	60	60	280	62	62	550
3/4	8 bar relieving, gauge, auto drain	**P3XEA16EGABNGN**	113	16	-10	60	60	280	62	62	550

* flow with 10 bar inlet pressure, 6,3 bar set pressure and 1 bar pressure drop.

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Technical Information

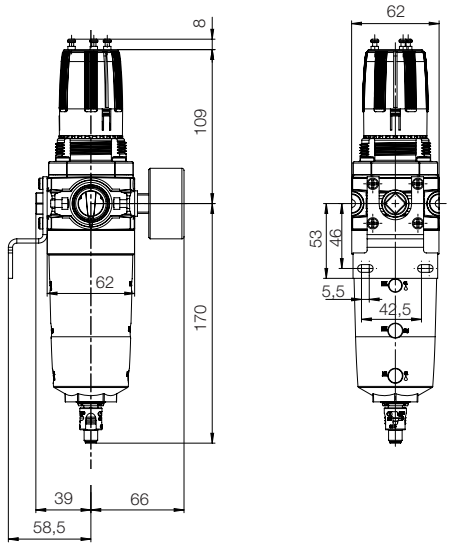
Fluid:	Compressed air
Maximum inlet pressure:	16 bar
Temperature range*: Auto drain: Combined drain:	 -10°C to +60°C -40°C to +60°C
Particle removal:	5 micron and 40 micron
Air quality:	Within ISO 8573-1 : 1991 Class 3 and 5 (particulates) Within ISO 8573-1 : 2001 Class 6 and 7 (particulates)
Typical flow with 10 bar inlet pressure 6,3 bar set pressure and 1 bar pressure drop 106 dm^3/s	
Manual / Semi-auto drain: pressure to close drain	0.8 bar
Auto drain: bowl pressure to close drain Operating range manual override facility	 0.8 bar 0.8 to 16 bar
Bowl sump capacity:	60 cm^3
Gauge ports (x 2):	1/4"

* Air supply must be dry enough to avoid ice formation at temperatures below +2ºC

Material Specification

Body:		High tech polymer
Sight glass:		Polypropylene
Body cover:		ABS
Element:		Sintered P.E.
Seals:		Nitrile NBR
Drains:	Manual / Semi-auto:	Acetal
	Automatic:	PA / Brass
Bonnet:		High tech polymer
Control knob:		Polyamide
Valve:		Brass / Nitrile
Screws:		Stainless steel

Dimensions (mm)

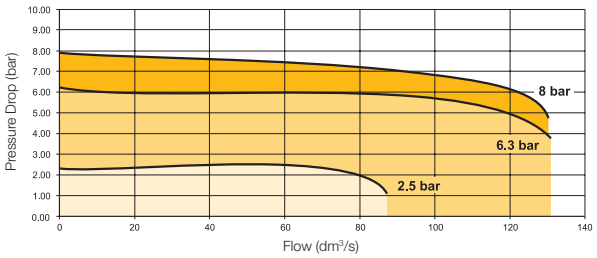


Service kits

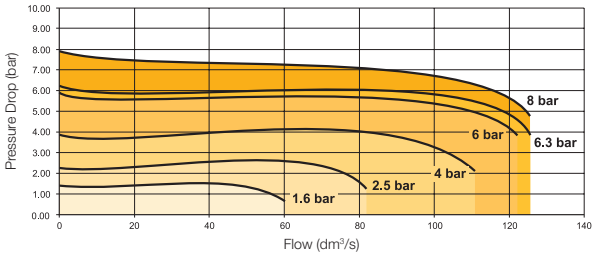
Description	Order code
5 micron element kit	**P3XKA00ESE**
40 micron element kit	**P3XKA00ESG**
Bowl kit with combined manual/semi auto drain	**P3XKA00BSC**
Bowl kit with auto drain	**P3XKA00BSA**
Tamper-proof knob kit (keylock)	**P3XKA00AS**
Diaphragm kit (relieving type)	**P3XKA00RR**
Diaphragm kit (non-relieving type)	**P3XKA00RN**
Wall bracket kit - Stainless steel	**P3XKA00MW**
Panel mount nut	**P3XKA00MM**

Flow characteristics

(1/2) 5 Micron Filter/Regulator



(3/4) 5 Micron Filter/Regulator



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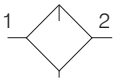
Lubricator

Symbols



Lubricator

- Integral 1/2 or 3/4 ports
- Proportional oil delivery over a wide range of air flows.
- No adjustment necessary (self adjusting)
- Fill from top under system pressure

Options:

P 3 X L A [ ] [ ] [ ] **G N N**

* NPT ports on request 1/2" size only

BSPP (G)	**1**
NPT *	**9**

1/2	**4**
3/4	**6**

5 mg/m^3	**S** [1]
50 mg/m^3	**P** [2]

Port size	Description	Order Code	Flow dm^3/s *	Max bar	Min temp °C	Max temp °C	Bowl capacity cm^3	Height mm	Width mm	Depth mm	Weight g
1/2	Oil mist, fill under pressure (50mg/m^3)	**P3XLA14PGNN**	78	16	-10	60	90	195	62	62	300
3/4	Oil mist, fill under pressure (50mg/m^3)	**P3XLA16PGNN**	78	16	-10	60	90	195	62	62	300
1/2	Oil mist, fill under pressure (5mg/m^3)	**P3XLA14SGNN**	78	16	-10	60	90	195	62	62	300
3/4	Oil mist, fill under pressure (5mg/m^3)	**P3XLA16SGNN**	78	16	-10	60	90	195	62	62	300

* Flow with 6,3 bar inlet pressure and 0,5 pressure drop.

[1] Best for pre-lubricated pneumatic components (e.g. rodless cylinder, actuators, valves etc.)

[2] Best for components which require effective lubrication (e.g. vane driven pneumatic motors / air tools etc.)

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Technical Information

Fluid:	Compressed air
Maximum inlet pressure:	16 bar
Temperature range*:	-10°C to +60°C

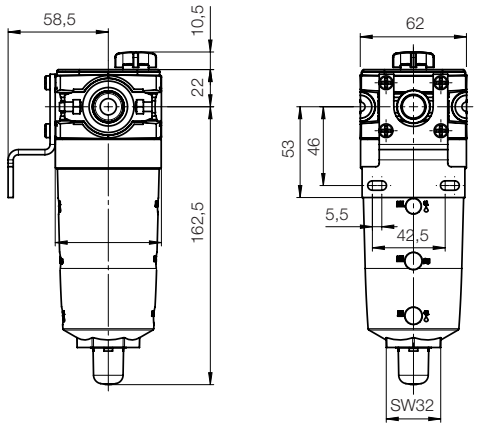
* Air supply must be dry enough to aviod ice formation at temperatures below +2^{0} C
Low flow start point (lubrication pick-up): at 6.3bar inlet pressure 7 dm^3/s
Typical flow with 6.3bar inlet pressure and 0.5 bar pressure drop: 78 dm^3/s

Note : Fill lubricant from top only

Material Specification

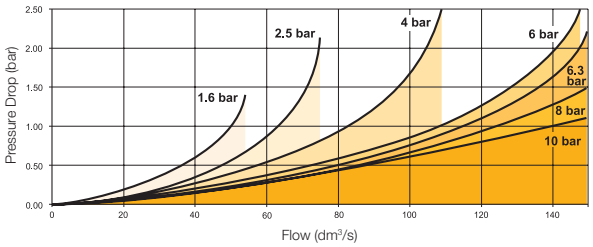
Body:	High tech polymer
Bowl sight glass:	Polypropylene
Sight dome:	PA (Nylon)
Lubricator cover:	ABS
Seals:	Nitrile NBR

Dimensions (mm)

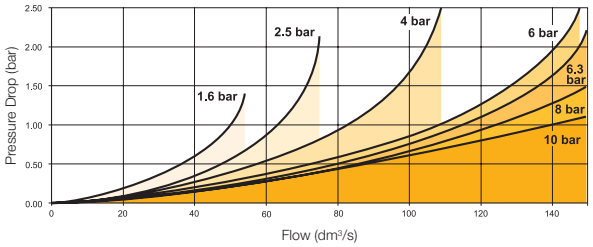


Flow characteristics

(1/2) Lubricator



(3/4) Lubricator



Service kits

Description	Order code
Bowl kit	**P3XKA00BSN**
Refill plug	**P3XKA00PL**
Oil VG15 - 100ml	**P3XKA00PPA**

Proportional Pressure Regulator

- Integral 1/2" or 3/4" ports (BSPP & NPT)
- Accurate output pressure
- Very fast response times
- Robust but lightweight design.

Options:

P 3 X P A [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]

BSPP (G)	1
NPT *	9

* NPT Ports on request 1/2" size only

1/2	4
3/4	6

Side exhaust NC (Normally closed)	B
Side exhaust NO (Normally open)	C

*	0 - 7 bar	S
	0 - 10 bar	D

* Other pressures available on request.

24 volts	2

4-20mA	A
0-20mA	B
0-10V	V

Analogue 0-10V	A

M12 (5 pin)	2

Without bracket	A

Popular options:

Port size	Description	Order Code	Control signal	Output signal	Output pressure	Weight kg
1/2	Normally closed	**P3XPA14BD2VA2A**	0 - 10 V	0 - 10 V	0 - 10 bar	0.75
3/4	Normally closed	**P3XPA16BD2VA2A**	0 - 10 V	0 - 10 V	0 - 10 bar	0.75

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Technical Information

Operating pressure range	P^1 min	1 bar	
Inlet pressure [1])	P^1 max	16 bar	
Operating pressure range	P^2 min	0.2 bar	
Outlet pressure	P^2 max	10 bar	
Operating Temperature	0°C to +50°C		
Maximum Flow [2])	Qn	dm^3/s	160
Hysteresis	P^2 max	< 1%	
Repeatability	P^2 max	< 0.5%	
Sensitivity	P^2 max	< 0.5%	
Linearity	P^2 max	< 1%	
Nominal voltage	U_n V DC	24V = ±10%	
Residual ripple	10%		
Power consumption	I_{Bmax}	0.15 A	
Set value input	Uw	V	0 - 10
	I	mA	0 - 20
		mA	4 - 20
Input resistance	R_E	243 K Ω	
Actual valve output	U_X	0 - 10 V	
Ouput current	I_{Amax}	10 mA	
Degree of protection	IP65 to DIN 40050, EN 60529		

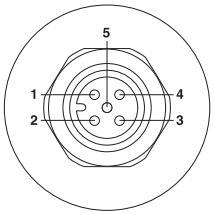
[1]) $p_1 > p_2 + 10\%\ p_2$

[2]) at p_1 - 10 bar to p_2 - 6.3 bar

Material Specification

Body:	High tech polymer
Booster valve:	Brass / Nitrile
Standard seals:	NBR
Body cover screws:	Steel / zinc plated
Body Cover:	Aluminium
Pilot piston:	Aluminium / Nitrile
Exhaust piston:	Brass / Nitrile
Electronic cover:	Zinc

Connection diagram



Connector M12 x 1

Pin 1:
Power supply
Plus +24 V DC ± 10%
0.15 A
Residual ripple 10%

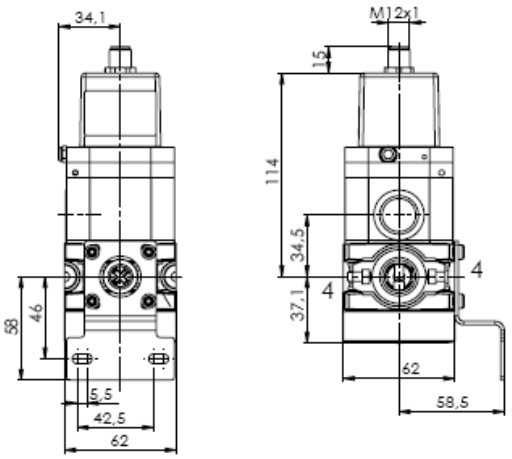
Pin 2:
Power supply 0 V
Reference and mass capacity
for set value and actual value

Pin 3:
Set value input
0 - 10 V

Pin 4:
0 V set signal
(connected on board
with pin 2 as standard)

Pin 5:
Analogue actual value output
0 - 10 V
Tolerance ± 0.15 V

Dimensions (mm)

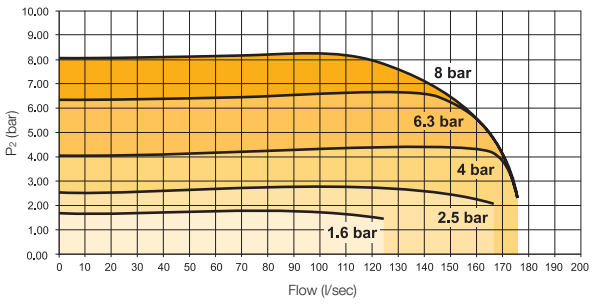


* Two opposite gauge ports G1/4, plug screw mounted

** Connection for 5-pin plug M12 x 1

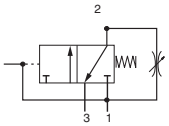
*** Exhaust port 1/2”

Flow characteristics



Dump Valve & Combined Soft Start Dump Valve

Symbols



- Modular design with 1/2" & 3/4" 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

P3X 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.

Options:

P 3 X [ ] **A** [ ] [ ] [ ] [ ] **N** [ ] [ ] [ ] [ ] [ ]

Solenoid type only

Combined soft start dump valve	**T**
Dump valve	**D**

External air pilot	**P**
Solenoid pilot	**S**

None (operator is fitted to valve)	**0**
30mm CNOMO coil (Form connection)	**A**
22mm coil (Form connection)	**B**
30mm CNOMO coil (M12 connection)	**D**
22mm coil (M12 connection)	**E**

Solenoid / coil not fitted	**000**
24V DC	**2CN**

BSPP (G)	**1**
NPT *	**9**

1/2	**4**
3/4	**6**

30mm operator	**C**
Threaded air pilot	**P**

* NPT Ports on request 1/2" size only

Combined soft start dump valve

Port size	Description	Order Code	Flow dm^3/s	Max bar	Min temp °C	Max temp °C	Height mm	Width mm	Depth mm	Weight kg
1/2	Solenoid operated (not included)	**P3XTA14SCN0000**	80	16	-10	60	144	62	62	0.75
1/2	24VDC 22mm coil	**P3XTA14SCNB2CN**	80	10	-10	60	174	88	62	0.75
1/2	24VDC 30mm coil	**P3XTA14SCNA2CN**	80	16	-10	60	174	88	62	0.75
1/2	Air pilot operated	**P3XTA14PPN**	80	16	-10	60	127.5	62	62	0.75
3/4	Solenoid operated (not included)	**P3XTA16SCN0000**	88	16	-10	60	144	62	62	0.75
3/4	24VDC 22mm coil	**P3XTA16SCNB2CN**	88	10	-10	60	174	88	62	0.75
3/4	24VDC 30mm coil	**P3XTA16SCNA2CN**	88	16	-10	60	174	88	62	0.75
3/4	Air pilot operated	**P3XTA16PPN**	88	16	-10	60	127.5	62	62	0.75

PDE2620TCUK

P3X Lite Series

Dump Valve & Combined Soft Start Dump

Technical Information

Fluid:	Compressed air
Maximum pressure Solenoid operated 22mm coil:	10 bar
Maximum pressure Solenoid operated 30mm coil:	16 bar
Minimum operating pressure:	2 bar
Temperature range* Solenoid operated:	-10⁰ to + 60⁰ C
Temperature range* Air Pilot operated:	-10⁰ to + 60⁰ C
Air Pilot port:	1/8”
Exhaust port:	1/2”
Gauge port:	1/4”
Typical flow with 6.3bar inlet pressure and 1 bar pressure drop:	1/2” 80 dm³/s 3/4” 80 dm³/s

* Air supply must be dry enough to avoid ice formation at temperatures below +2ºC
Snap pressure: Full flow when downstream pressure reaches 50% of the inlet pressure

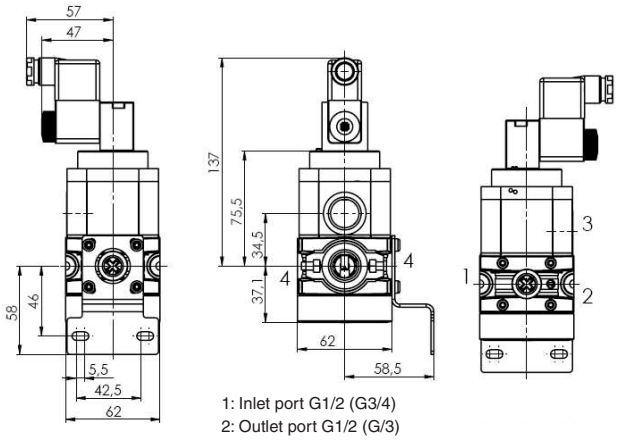
Material Specification

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

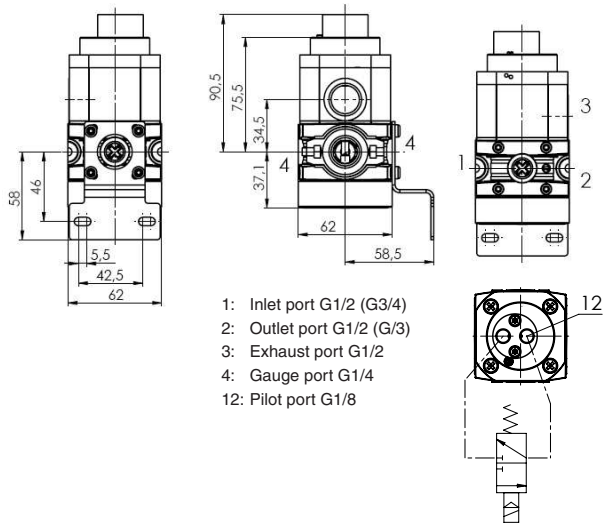
Solenoid coils

For Solenoid coil information refer to page 25

Dimensions (mm)

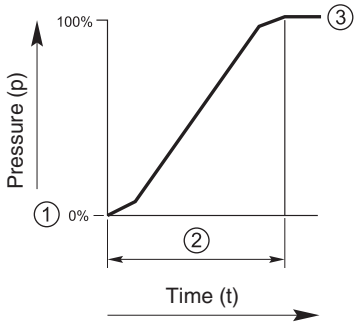


1: Inlet port G1/2 (G3/4)
2: Outlet port G1/2 (G/3)
3: Exhaust port G1/2
4: Gauge port G1/4



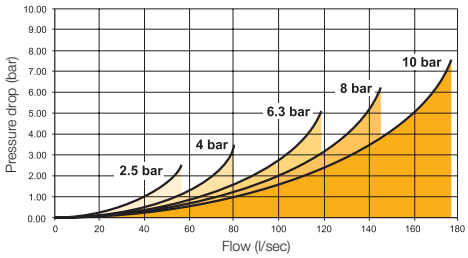
1: Inlet port G1/2 (G3/4)
2: Outlet port G1/2 (G/3)
3: Exhaust port G1/2
4: Gauge port G1/4
12: Pilot port G1/8

Flow characteristics



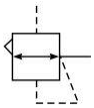
① Start signal
② Switching time delay
③ Operating pressure p^2 (=p^1)

Soft Start Dump Valve 24v 1/2” Port



Pilot Operated Regulator

Symbols



- Integral G1/2” or G3/4” ports
- G1/8” air pilot signal port
- Pilot controlled regulators can be mounted “out of reach” with pilot regulator installed in a convenient location
- Constant bleed control for accurate pressure control
- Balanced poppet provides quick response
- High flow
- Quick exhaust and high relief capacity through full 1/2” ported orifice

Options:

P 3 X R A [ ] [ ] **B P P N**

BSPP (G)	**1**
NPT *	**9**

1/2	**4**
3/4	**6**

* NPT ports on request 1/2” size only

Port size	Description	Order Code	Flow dm^3/s	Max bar	Min temp °C	Max temp °C	Height mm	Width mm	Depth mm	Weight kg
1/2	Pilot operated regulator	**P3XRA14BPPN**	122	16	-40	60	150	62	62	360
3/4	Pilot operated regulator	**P3XRA16BPPN**	134	16	-40	60	150	62	62	360

* flow with 10 bar inlet pressure, 6,3 bar set pressure and 1 bar pressure drop.

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Technical Information

Fluid:	Compressed air
Maximum inlet pressure:	16 bar
Temperature range*:	-40°C to +60°C
Typical flow with 10 bar inlet pressure, 6.3 bar set pressure and 1 bar pressure drop:	1/2" 122 dm^3/s 3/4" 134 dm^3/s
Gauge port (x 2):	1/4"
Pilot port:	1/8"

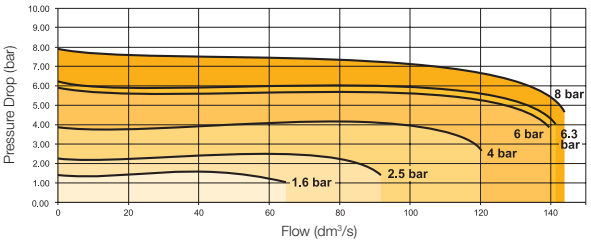
* Air supply must be dry enough to avoid ice formation at temperatures below +2ºC

Material Specification

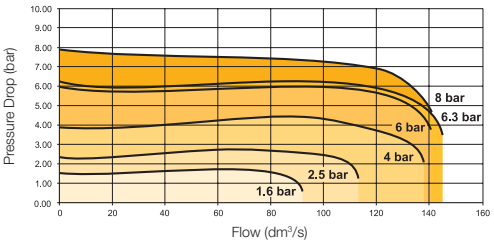
Body:	High tech polymer
Body top:	Aluminium
Valve:	Brass / Nitrile
Seals:	Nitrile NBR
Screws:	Stainless steel

Flow characteristics

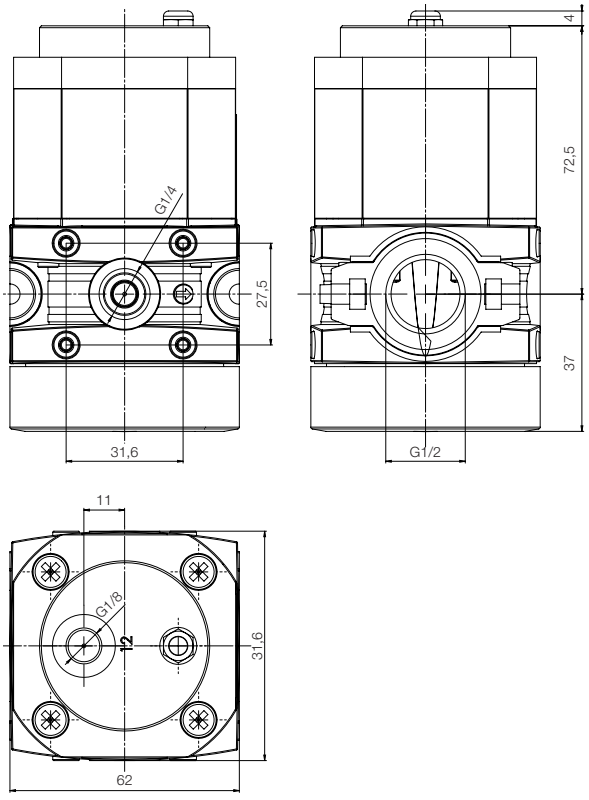
Regulation characteristics: (1/2)



Regulation characteristics: (3/4)



Dimensions (mm)

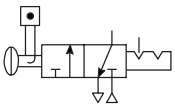


Service kits

Description	Order code
Wall bracket - Stainless steel	**P3XKA00MW**

Modular Slide Valve

Symbol



- Padlockable.
- When the inlet pressure is turned off the downstream vents through the exhaust port.

P3X Series Slide Valves provide shut off line pressure to prevent unauthorised adjustment.

Options:

P 3 X	V A			LSN

BSPP (G)	1	G1/2	4
NPT *	9	G3/4	6

* NPT ports on request (1/2" size only)

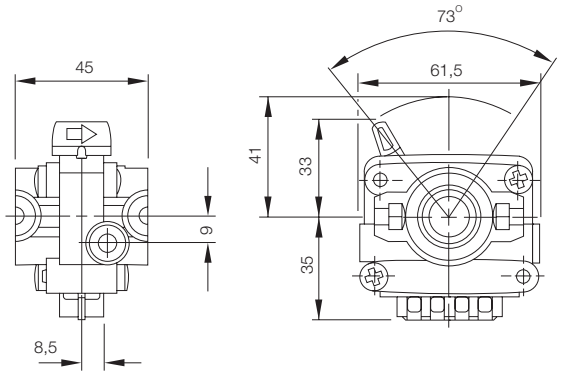
Technical Information

Operating Temperature:		-10°C to +60°C
Maximum Supply Pressure:		16 bar
Weight (g):	1/2	300g
	3/4	300g

Material specification:

Body:	High tech polymer
Handle:	Polyamide
Seals:	Nitrile NBR
Exhaust muffler:	Sintered bronze

Dimensions (mm)



Modular Manifold

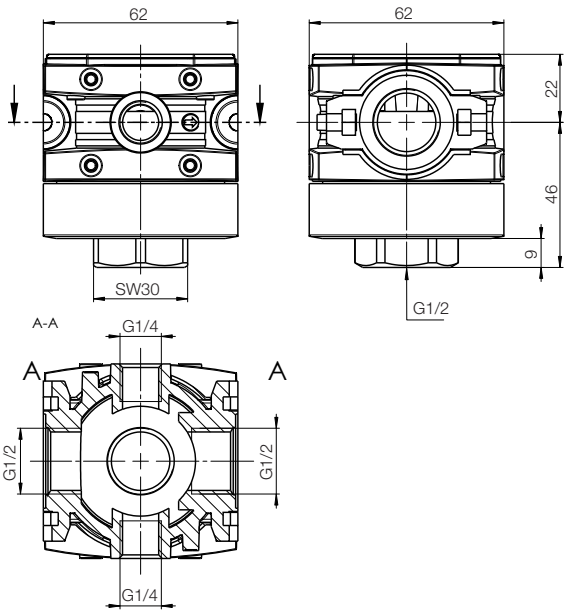
P3X Series Manifolds, provide up to 2 extra outlet ports, they may be assembled at any position in a combination e.g. before the lubricator to provide oil free take off or at the end of a combination to provide extra outlet ports.

Description	Order code BSPP	Order code NPT	Weight (g)
G1/2"	**P3XMA1V0N**	**P3XMA9V0N**	170
G3/4"	**P3XMA160N**		170

Material specification:

Body:	High tech polymer
Manifold Cover:	ABS

Dimensions (mm)



Inlet port	Bottom	Front and Back
1/2	1/2"	1/4"
3/4	3/4"	1/4"

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Solenoid coils with Din A or Industrial B connection

Voltage	30mm x 30mm Order code DIN A Standard	Weight (Kg)	22mm x 30mm Order code Industrial B standard	Weight (Kg)
Direct current				
12V DC	**P2FCA445**	0.105	**P2FCB445**	0.093
24V DC	**P2FCA449**	0.105	**P2FCB449**	0.093
48V DC	**P2FCA453***	0.105	**P2FCB451**	0.093
Alternative current				
12V 50/60Hz	**P2FCA440**	0.105	**P2FCB440**	0.093
24V 50/60Hz	**P2FCA442**	0.105	**P2FCB442**	0.093
48V 50/60Hz	**P2FCA469#**	0.105		
110V 50Hz, 120V 60Hz	**P2FCA453**	0.105	**P2FCB453**	0.093
230V 50Hz, 230V 60Hz	**P2FCA457**	0.105	**P2FCB457**	0.093

* P2FCA453 is compatible with 110 V AC and 48 V DC
\# P2FCA469 is 24 V DC 6.8W or 48 V 50Hz 9.9 VA

Solenoid coils with M12 connection

Voltage	Order code Form A 30 x 30	Weight (Kg)	Order code Form B 22 x 30	Weight (Kg)
Direct current				
24V DC	**P2FC6419**	0.065	**P2FC7419**	0.065

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Accessories

Description		Connection	Weight (g)	Order code	
Panel mounting nut			10	**P3XKA00MM**	
Stainless steel - Wall bracket kit			80	**P3XKA00MW**	
P3X connecting kit			10	**P3XKA00CB**	
Lubricator Oil	VG15 : ISO 3448 - 100ml		100	**P3XKA00PPA**	
Pressure gauge	0 to 10 bar 0 to 16 bar	1/4” 1/4”	60 60	**KG8012-00** **KG8013-00**	
Connector O-ring kit	Qty: 5			**P3XKA04CY**	
Regulator & Filter/Regulator - Key Lock Kit			0.05	**P3XKA00AS**	

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Parker Worldwide

Europe, Middle East, Africa

AE – United Arab Emirates, Dubai
Tel: +971 4 8127100
parker.me@parker.com

AT – Austria, Wiener Neustadt
Tel: +43 (0)2622 23501-0
parker.austria@parker.com

AT – Eastern Europe, Wiener Neustadt
Tel: +43 (0)2622 23501 900
parker.easteurope@parker.com

AZ – Azerbaijan, Baku
Tel: +994 50 2233 458
parker.azerbaijan@parker.com

BE/LU – Belgium, Nivelles
Tel: +32 (0)67 280 900
parker.belgium@parker.com

BG – Bulgaria, Sofia
Tel: +359 2 980 1344
parker.bulgaria@parker.com

BY – Belarus, Minsk
Tel: +375 17 209 9399
parker.belarus@parker.com

CH – Switzerland, Etoy
Tel: +41 (0)21 821 87 00
parker.switzerland@parker.com

CZ – Czech Republic, Klecany
Tel: +420 284 083 111
parker.czechrepublic@parker.com

DE – Germany, Kaarst
Tel: +49 (0)2131 4016 0
parker.germany@parker.com

DK – Denmark, Ballerup
Tel: +45 43 56 04 00
parker.denmark@parker.com

ES – Spain, Madrid
Tel: +34 902 330 001
parker.spain@parker.com

FI – Finland, Vantaa
Tel: +358 (0)20 753 2500
parker.finland@parker.com

FR – France, Contamine s/Arve
Tel: +33 (0)4 50 25 80 25
parker.france@parker.com

GR – Greece, Athens
Tel: +30 210 933 6450
parker.greece@parker.com

HU – Hungary, Budaörs
Tel: +36 23 885 470
parker.hungary@parker.com

IE – Ireland, Dublin
Tel: +353 (0)1 466 6370
parker.ireland@parker.com

IT – Italy, Corsico (MI)
Tel: +39 02 45 19 21
parker.italy@parker.com

KZ – Kazakhstan, Almaty
Tel: +7 7273 561 000
parker.easteurope@parker.com

NL – The Netherlands, Oldenzaal
Tel: +31 (0)541 585 000
parker.nl@parker.com

NO – Norway, Asker
Tel: +47 66 75 34 00
parker.norway@parker.com

PL – Poland, Warsaw
Tel: +48 (0)22 573 24 00
parker.poland@parker.com

PT – Portugal, Leca da Palmeira
Tel: +351 22 999 7360
parker.portugal@parker.com

RO – Romania, Bucharest
Tel: +40 21 252 1382
parker.romania@parker.com

RU – Russia, Moscow
Tel: +7 495 645-2156
parker.russia@parker.com

SE – Sweden, Spånga
Tel: +46 (0)8 59 79 50 00
parker.sweden@parker.com

SL – Slovenia, Novo Mesto
Tel: +386 7 337 6650
parker.slovenia@parker.com

TR – Turkey, Istanbul
Tel: +90 216 4997081
parker.turkey@parker.com

UA – Ukraine, Kiev
Tel: +380 44 494 2731
parker.poland@parker.com

UK – United Kingdom, Warwick
Tel: +44 (0)1926 317 878
parker.uk@parker.com

ZA – South Africa, Kempton Park
Tel: +27 (0)11 961 0700
parker.southafrica@parker.com

North America

CA – Canada, Milton, Ontario
Tel: +1 905 693 3000

US – USA, Cleveland
Tel: +1 216 896 3000

Asia Pacific

AU – Australia, Castle Hill
Tel: +61 (0)2-9634 7777

CN – China, Shanghai
Tel: +86 21 2899 5000

HK – Hong Kong
Tel: +852 2428 8008

IN – India, Mumbai
Tel: +91 22 6513 7081-85

JP – Japan, Tokyo
Tel: +81 (0)3 6408 3901

KR – South Korea, Seoul
Tel: +82 2 559 0400

MY – Malaysia, Shah Alam
Tel: +60 3 7849 0800

NZ – New Zealand, Mt Wellington
Tel: +64 9 574 1744

SG – Singapore
Tel: +65 6887 6300

TH – Thailand, Bangkok
Tel: +662 186 7000

TW – Taiwan, Taipei
Tel: +886 2 2298 8987

South America

AR – Argentina, Buenos Aires
Tel: +54 3327 44 4129

BR – Brazil, Sao Jose dos Campos
Tel: +55 12 4009 3500

CL – Chile, Santiago
Tel: +562 2303 9640

MX – Mexico, Toluca
Tel: +52 72 2275 4200

European Product Information Centre
Free phone: 00 800 27 27 5374
(from AT, BE, CH, CZ, DE, DK, EE, ES, FI, FR, IE, IL, IS, IT, LU, MT, NL, NO, PL, PT, RU, SE, SK, UK, ZA)

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Parker Hannifin Ltd.
Tachbrook Park Drive
Tachbrook Park,
Warwick, CV34 6TU
United Kingdom
Tel.: +44 (0) 1926 317 878
Fax: +44 (0) 1926 317 855
parker.uk@parker.com
www.parker.com

Your local authorized Parker distributor