



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 August 2015



HANLEY CONTROLS

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 **WARNING**

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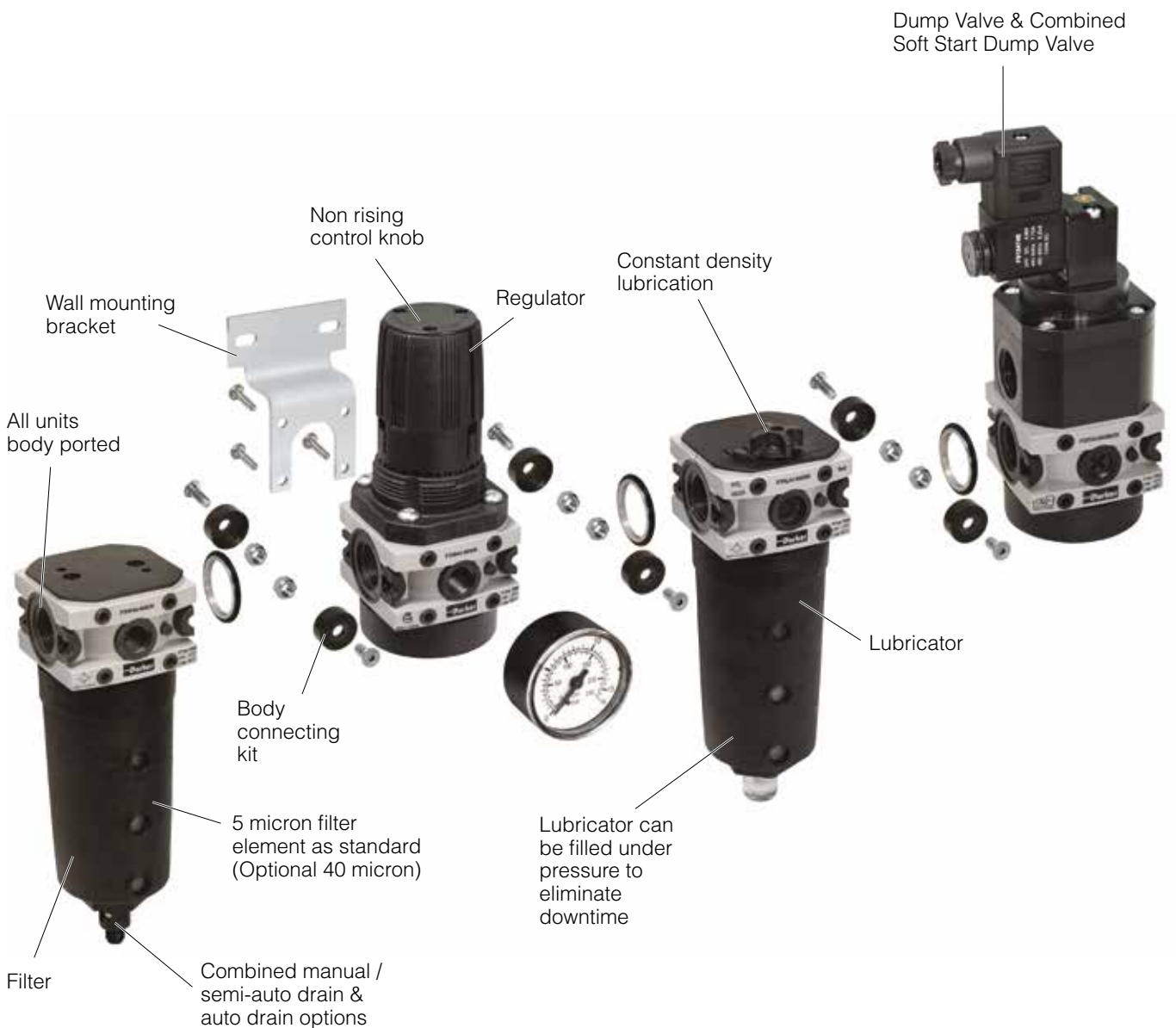
The System

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.



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

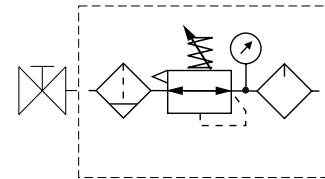
**New Nano Mist Technology,
New Lubricator Concept.
Self-Adjusting.**

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.

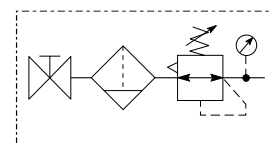


Popular Combinations



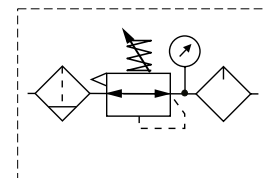
Slide Valve + Filter/Regulator + Lubricator Combinations (50mg/m³) 5 micron element, 8 bar Regulator + Gauge and Wall Mounting Brackets

Port size	Combined Manual/Semi-Auto Drain	Flow dm ³ /s	Weight (g)	Auto Drain	Flow dm ³ /s	Weight (g)
G ¹ / ₂	P3XAA14GECNGPNW	76	1300	P3XAA14GEANGPNW	76	1300
G ³ / 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 dm ³ /s	Weight (g)	Auto Drain	Flow dm ³ /s	Weight (g)
G ¹ / ₂	P3XAN14GECNGW	105	950	P3XAN14GEANGW	105	950
G ³ / 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 dm ³ /s	Weight (g)	Auto Drain	Flow dm ³ /s	Weight (g)
G ¹ / ₂	P3XCA14GECNGPNW	76	1000	P3XCA14GEANGPNW	76	1000
G ³ / ₄	P3XCA16GECNGPNW	77	1000	P3XCA16GEANGPNW	77	1000

Options:

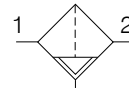
P 3 X				G E				W
Filter/Reg + Lubricator	CA	BSPP (G) 1		Combined Manual/Semi Auto Drain	C	0 - 8 bar with gauge	G	
Slide valve + Filter/Reg	AN	NPT * 9		Auto Drain	A	0 - 16 bar with gauge	J	
Slide valve + Filter/Reg + Lubricator	AA							
		1/2 4		Non rise - Standard	N	(50mg/m ³)	PN	Add only for options with lubricator
		3/4 6		Tamperproof - Lockable	A	(5mg/m ³)	SN	

* NPT ports on request
 1/2" size only

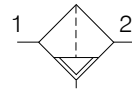
Filter



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																	
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="padding: 2px;">BSPP (G)</td> <td style="text-align: center; padding: 2px;">1</td> </tr> <tr> <td style="padding: 2px;">NPT *</td> <td style="text-align: center; padding: 2px;">9</td> </tr> </table>	BSPP (G)	1	NPT *	9	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="padding: 2px;">1/2</td> <td style="text-align: center; padding: 2px;">4</td> </tr> <tr> <td style="padding: 2px;">3/4</td> <td style="text-align: center; padding: 2px;">6</td> </tr> </table>	1/2	4	3/4	6	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="padding: 2px;">5 Micron Element Standard</td> <td style="text-align: center; padding: 2px;">E</td> </tr> <tr> <td style="padding: 2px;">40 Micron Element Optional</td> <td style="text-align: center; padding: 2px;">G</td> </tr> <tr> <td style="padding: 2px;">1 Micron Dust Filter</td> <td style="text-align: center; padding: 2px;">2</td> </tr> </table>	5 Micron Element Standard	E	40 Micron Element Optional	G	1 Micron Dust Filter	2	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="padding: 2px;">Combined Manual/Semi Auto Drain</td> <td style="text-align: center; padding: 2px;">C</td> </tr> <tr> <td style="padding: 2px;">Auto Drain</td> <td style="text-align: center; padding: 2px;">A</td> </tr> </table>	Combined Manual/Semi Auto Drain	C	Auto Drain	A			
BSPP (G)	1																							
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1 Micron Dust Filter	2																							
Combined Manual/Semi Auto Drain	C																							
Auto Drain	A																							
<p>* NPT ports on request 1/2" size only</p>																								

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

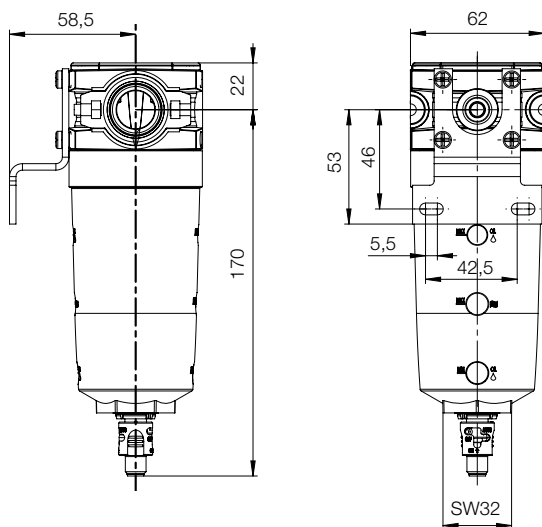
* flow with 6,3 bar inlet pressure and 0,5 pressure drop.

Technical Information

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

Dimensions (mm)



Service kits

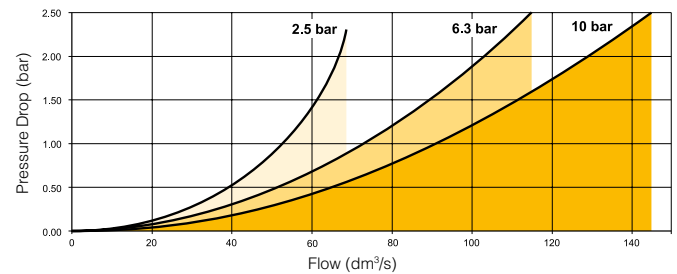
Description	Order code
5 micron element kit	P3XKA00ESE
40 micron element kit	P3XKA00ESG
Bowl kit with combines manual/semi auto drain	P3XKA00BSC
Bowl kit with auto drain	P3XKA00BSA
1 micron element kit	P3XKA00ES9

Material Specification

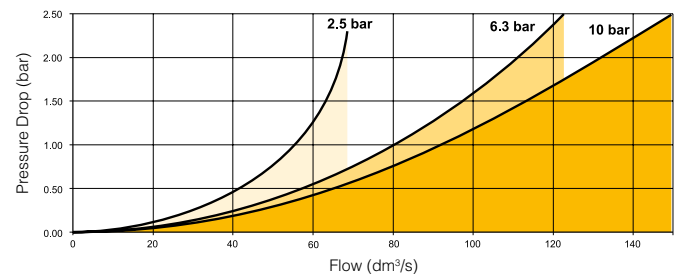
Body:	High tech polymer
Sight glass:	Polypropylene
Body cover:	ABS
Element:	Sintered P.E.
Seals:	Nitrile NBR
Drains:	Manual / Semi-auto: Acetal Automatic: PA / Brass

Flow characteristics

(1/2) 5 Micron Filter



(3/4) 5 Micron Filter



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	1/2 4	0.01 µm element with DPI standard D		Combined Manual/Semi Auto Drain C			
NPT * 9	3/4 6			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.

Technical Information

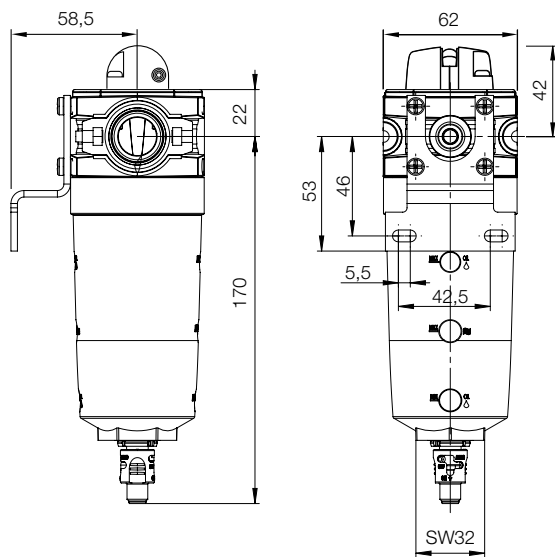
Fluid:	Compressed air
Maximum inlet pressure:	16 bar
Temperature range*:	-10°C to +60°C
Media specifications:	
Coalescing efficiency	(0.3 to 0.6 micron particles): 99.97%
Max. oil carryover (PPM w/w):	0.008 mg/m ³
Typical flow element @ 6,3 bar inlet pressure and 0.2 bar pressure drop:	16 dm ³ /s
Manual / 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)

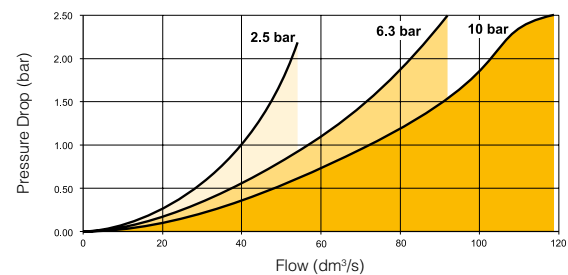


Service kits

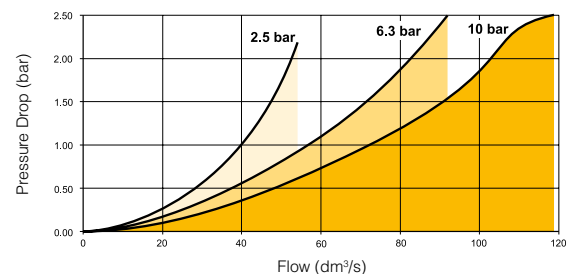
Description	Order code
0.01 micron coalescing element kit	P3XKA00ESC
Bowl kit with combines manual/semi auto drain	P3XKA00BSC
Bowl kit with auto drain	P3XKA00BSA
Differential pressure indicator kit	P3XKA00RQ

Flow characteristics

(1/2) 0.01µm Coalescing Filter Saturated



(3/4) 0.01µm Coalescing Filter Saturated



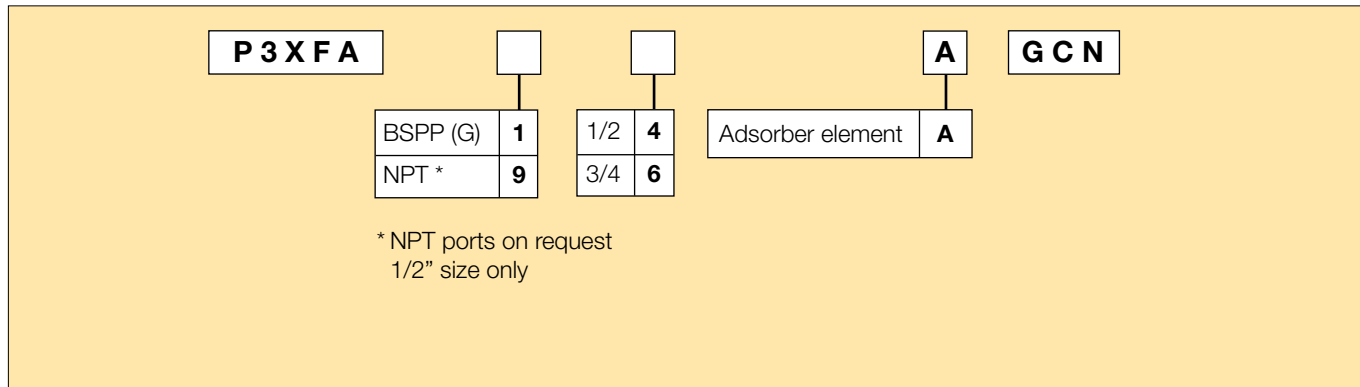
Adsorber Filter



- 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:



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.

Technical Information

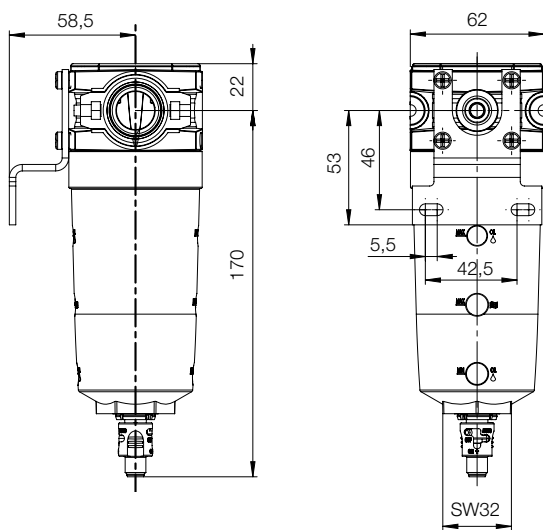
Fluid:	Compressed air	
Maximum inlet pressure:	16 bar	
Temperature range*:	-10°C to +60°C	
Typical flow at 6,3 bar inlet pressure and 0.2 bar pressure drop:	Adsorber	18 dm ³ /s
Manual / Semi-auto drain:	1/8" connection	
to close connection	0.8 bar	

* 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)

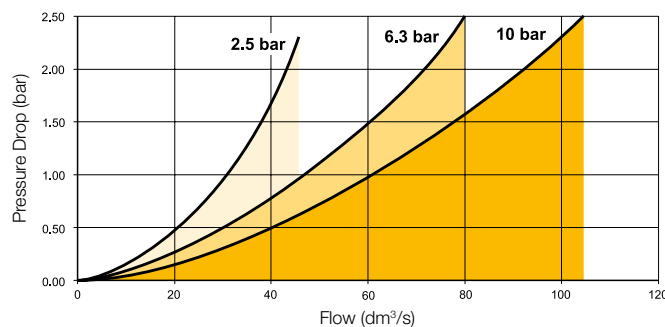


Service kits

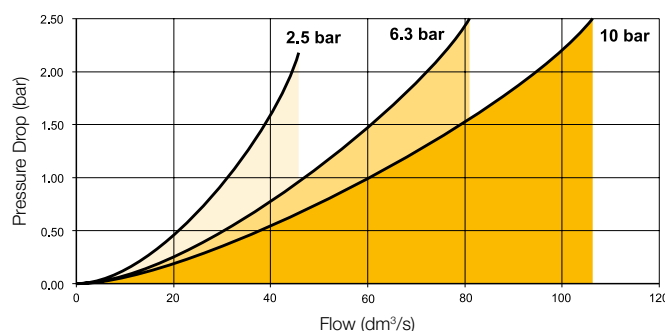
Description	Order code
Adsorber element kit	P3XKA00ESA
Bowl kit with manual drain	P3XKA00BSC

Flow characteristics

(1/2) Adsorber Filter



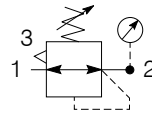
(3/4) Adsorber Filter



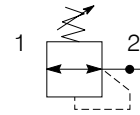
Regulator



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	1/2 4	Relieving B	Non rise - standard N	0 - 4 bar No Gauge L			
NPT * 9	3/4 6	Non-relieving N	Tamperproof - Lockable A	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			

* 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 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

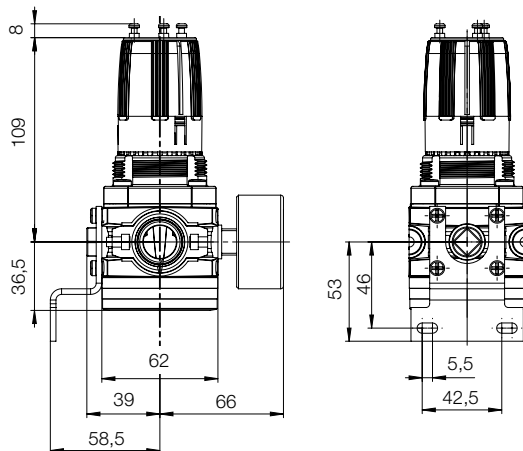
Fluid:	Compressed air	
Maximum inlet pressure:	16 bar	
Temperature range*:	-40°C to +60°C	
Typical flow with 10 bar inlet pressure, 6.3 bar set pressure and 1 bar pressure drop:	1/2"	122 dm ³ /s
	3/4"	134 dm ³ /s
Gauge port (x 2):	1/4"	

* 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)

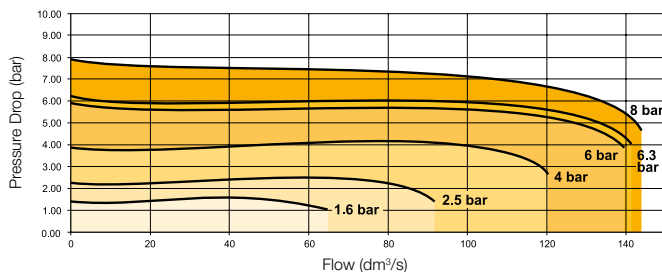
This facilitates the tamperproofing of the Regulator and Filter-Regulator units. (On request)



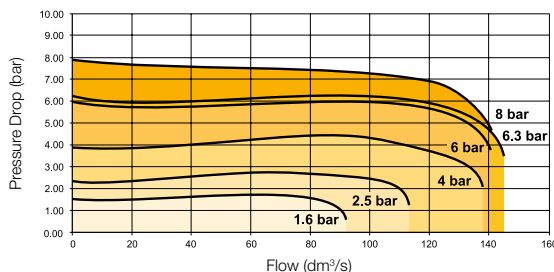
Order code
1 Padlock each
P3XKA00AS

Flow characteristics

Regulation characteristics: (1/2)



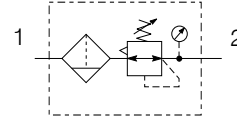
Regulation characteristics: (3/4)



Filter-Regulator

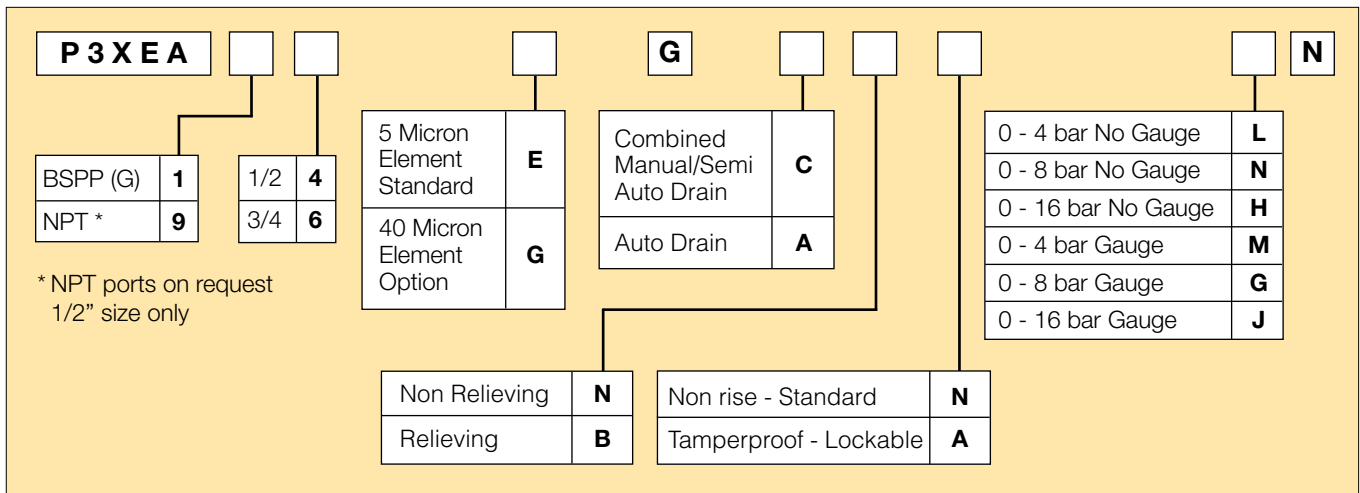


Symbols



- 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:



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

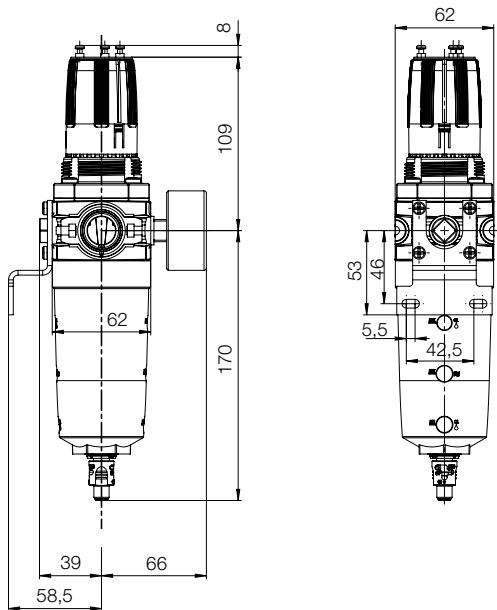
* flow with 10 bar inlet pressure, 6,3 bar set pressure and 1 bar pressure drop.

Technical Information

Fluid:	Compressed air
Maximum inlet pressure:	16 bar
Temperature range*:	
Auto drain:	-10°C to +60°C
Combined drain:	-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	0.8 bar
Operating range manual override facility	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 +2°C

Dimensions (mm)



Service kits

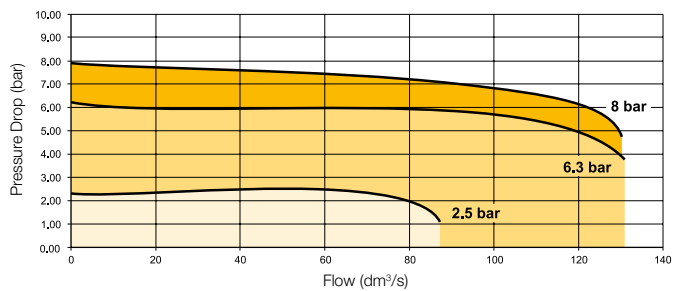
Description	Order code
5 micron element kit	P3XKA00ESE
40 micron element kit	P3XKA00ESG
Bowl kit with combined manual/semi auto drain	P3XKA00BSC
Bowl kit with auto drain	P3XKA00BSA
Tamper-proof knob kit (keylock)	P3XKA00AS
Diaphragm kit (relieving type)	P3XKA00RR
Diaphragm kit (non-relieving type)	P3XKA00RN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

Material Specification

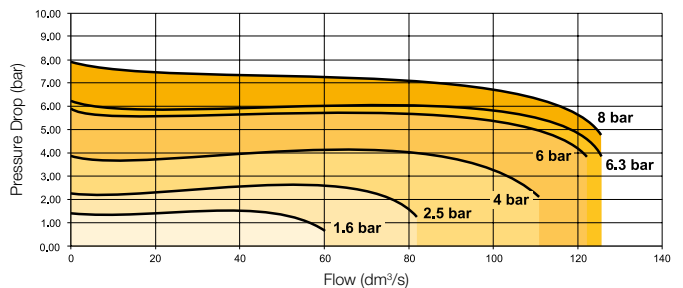
Body:	High tech polymer
Sight glass:	Polypropylene
Body cover:	ABS
Element:	Sintered P.E.
Seals:	Nitrile NBR
Drains:	Manual / Semi-auto: Acetal Automatic: PA / Brass
Bonnet:	High tech polymer
Control knob:	Polyamide
Valve:	Brass / Nitrile
Screws:	Stainless steel

Flow characteristics

(1/2) 5 Micron Filter/Regulator



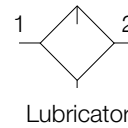
(3/4) 5 Micron Filter/Regulator



Lubricator



Symbols



- 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	<table border="1"> <tr><td>BSPP (G)</td><td style="text-align: center;">1</td></tr> <tr><td>NPT *</td><td style="text-align: center;">9</td></tr> </table>	BSPP (G)	1	NPT *	9	<table border="1"> <tr><td>1/2</td><td style="text-align: center;">4</td></tr> <tr><td>3/4</td><td style="text-align: center;">6</td></tr> </table>	1/2	4	3/4	6	<table border="1"> <tr><td>5 mg/m³</td><td style="text-align: center;">S¹⁾</td></tr> <tr><td>50 mg/m³</td><td style="text-align: center;">P²⁾</td></tr> </table>	5 mg/m ³	S ¹⁾	50 mg/m ³	P ²⁾	
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.)

Technical Information

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

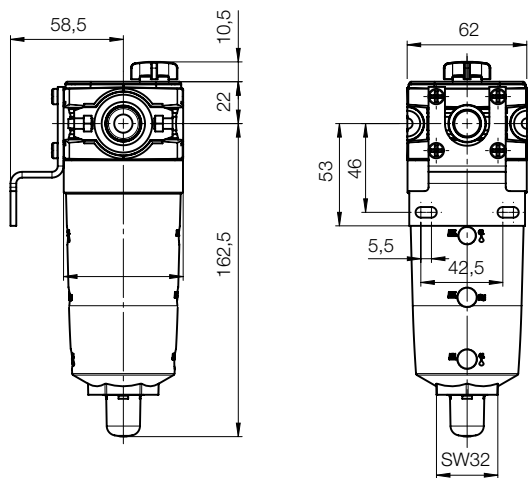
* Air supply must be dry enough to avoid ice formation at temperatures below +2° C
 Low flow start point (lubrication pick-up): at 6.3bar inlet pressure 7 dm³/s
 Typical flow with 6.3bar inlet pressure and 0.5 bar pressure drop: 78 dm³/s

Note : Fill lubricant from top only

Material Specification

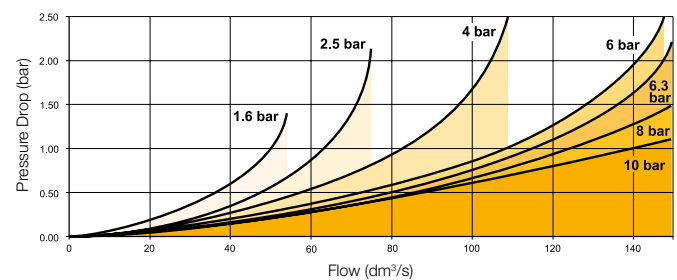
Body:	High tech polymer
Bowl sight glass:	Polypropylene
Sight dome:	PA (Nylon)
Lubricator cover:	ABS
Seals:	Nitrile NBR

Dimensions (mm)

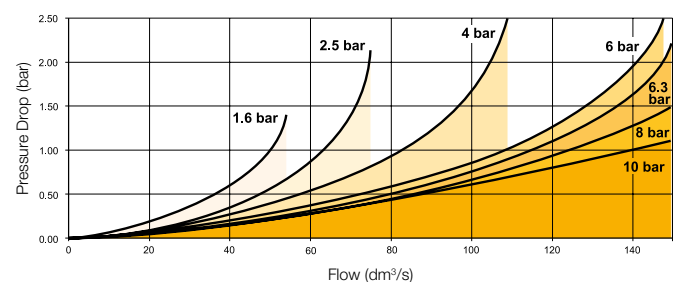


Flow characteristics

(1/2) Lubricator



(3/4) Lubricator



Service kits

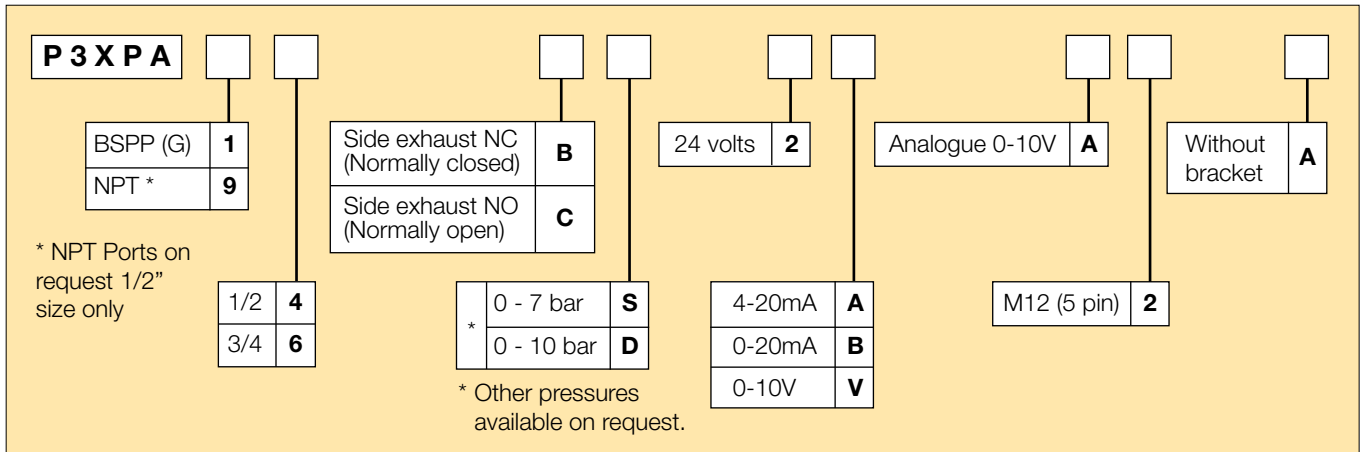
Description	Order code
Bowl kit	P3XKA00BSN
Refill plug	P3XKA00PL
Oil VG15 - 100ml	P3XKA00PPA

Proportional Pressure Regulator



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

Options:



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

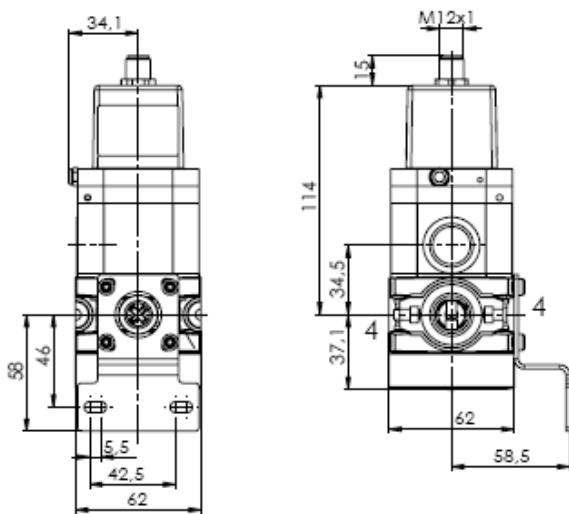
Technical Information

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⁾	Q _n	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	U _w V	0 - 10
	I mA	0 - 20
	I mA	4 - 20
Input resistance	R _E	243 K Ω
Actual valve output	U _x	0 - 10 V
Output 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

Dimensions (mm)



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

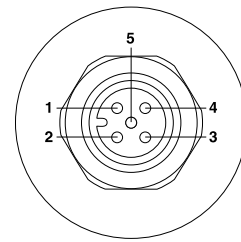
** Connection for 5-pin plug M12 x 1

*** Exhaust port 1/2"

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%

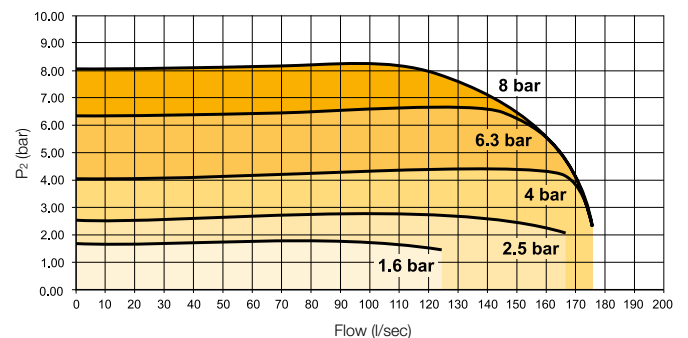
Pin 2:
 Power supply 0 V
 Reference and mass capacity
 for set value and actual value

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

Flow characteristics



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:	-10 ^o to + 60 ^o C
Temperature range* Air Pilot operated:	-10 ^o to + 60 ^o 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 dm ³ /s
	3/4" 80 dm ³ /s

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

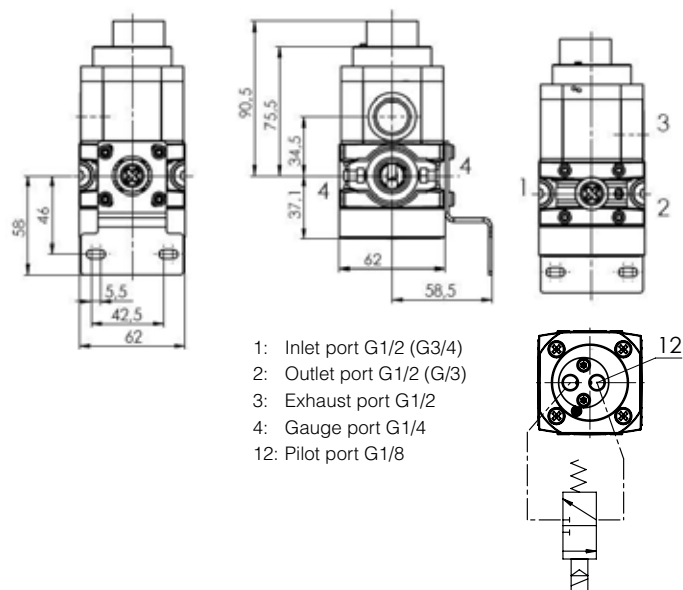
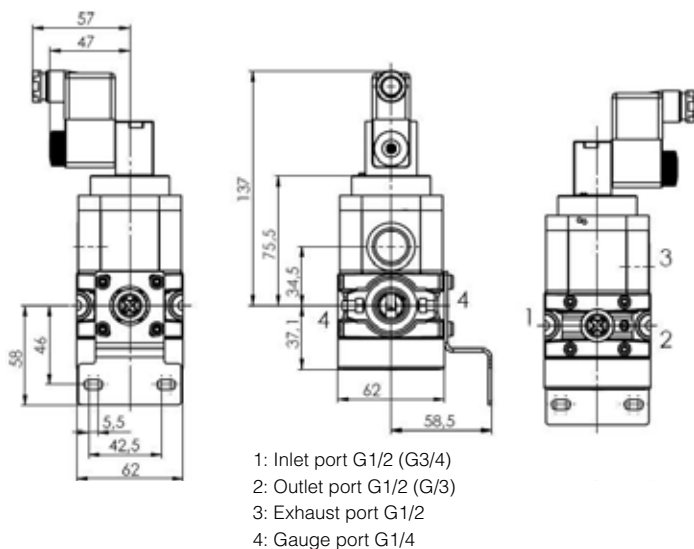
Material Specification

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

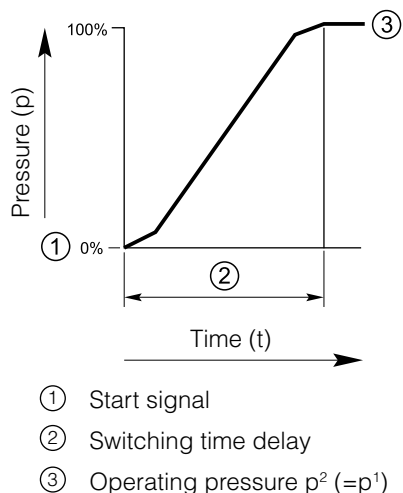
Solenoid coils

For Solenoid coil information refer to page 25

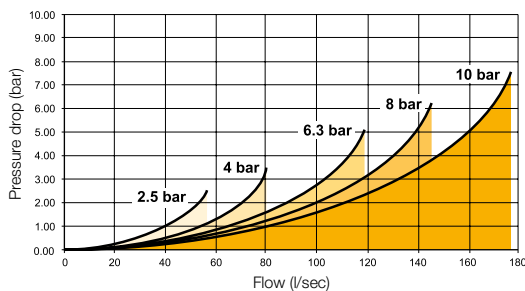
Dimensions (mm)



Flow characteristics



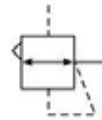
Soft Start Dump Valve 24v 1/2" Port



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	1/2 4	
	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	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.

Technical Information

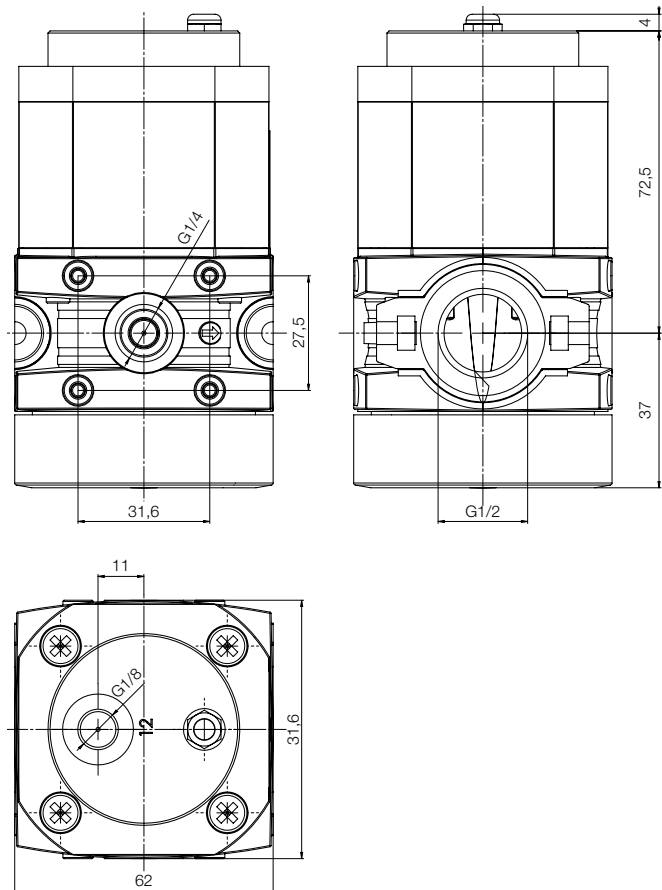
Fluid:	Compressed air
Maximum inlet pressure:	16 bar
Temperature range*:	-40°C to +60°C
Typical flow with 10 bar inlet pressure, 6.3 bar set pressure and 1 bar pressure drop:	1/2" 122 dm ³ /s 3/4" 134 dm ³ /s
Gauge port (x 2):	1/4"
Pilot port:	1/8"

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

Material Specification

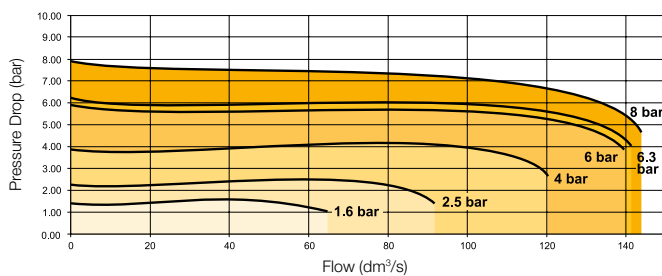
Body:	High tech polymer
Body top:	Aluminium
Valve:	Brass / Nitrile
Seals:	Nitrile NBR
Screws:	Stainless steel

Dimensions (mm)

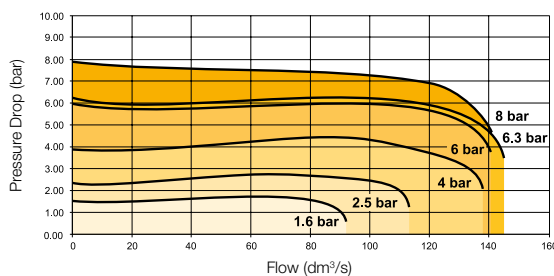


Flow characteristics

Regulation characteristics: (1/2)



Regulation characteristics: (3/4)

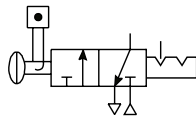


Service kits

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

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

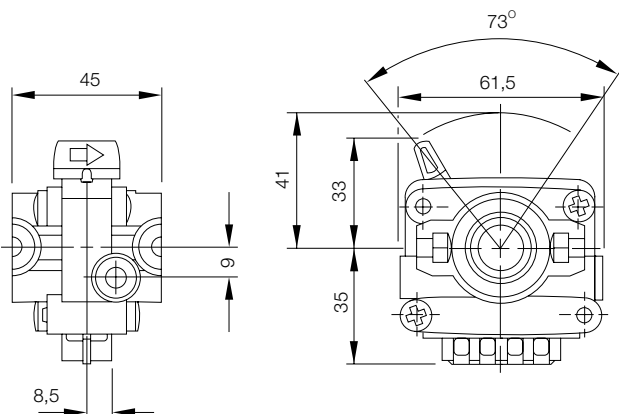
Technical Information

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



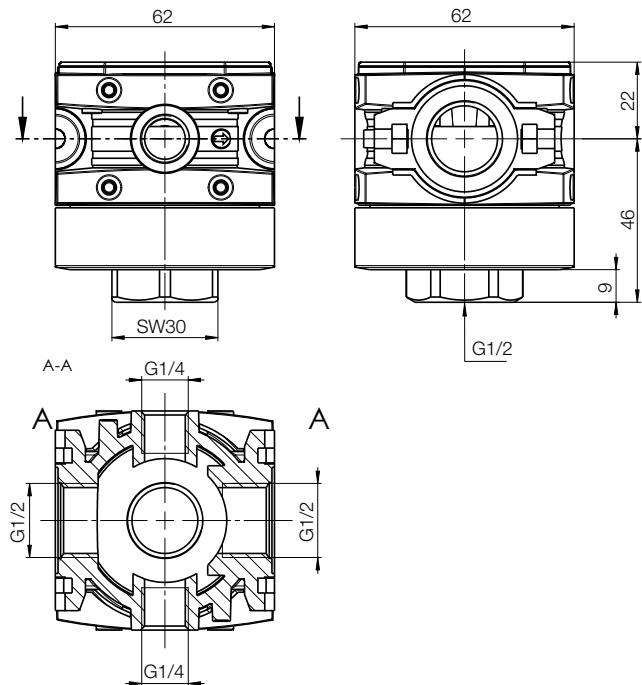
P3X Series Manifolds, provide up to 2 extra outlet ports, they may be assembled at any position in a combination e.g. before the lubricator to provide oil free take off or at the end of a combination to provide extra outlet ports.

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"

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

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"	KG8012-00 KG8013-00	
Connector O-ring kit	Qty: 5		P3XKA04CY	
Regulator & Filter/Regulator - Key Lock Kit		0.05	P3XKA00AS	

The Problem

Compressed air is an essential power source that is widely used throughout industry. This safe, powerful and reliable utility can be the most important part of your production process.

However, your compressed air will contain water, dirt, wear particles and even degraded lubricating oil which all mix together to form an unwanted condensate. This condensate often acidic, rapidly wears tools and pneumatic machinery, blocks valves and orifices causing high maintenance and costly air leaks. It also corrodes piping systems and can bring your production process to an extremely expensive standstill.

The use of high efficiency compressed air filters fitted with condensate drains will remove the oil, water and dirt particles to eliminate the abrasive sludge in the compressed air system.

In many cases this action alone is not enough, as modern production systems and processes demand an even higher level of air quality. Where required “point of use” membrane air dryers can provide the correct air quality, without the need for drying the complete compressed air installation, which can be both costly and totally unnecessary.

The Efficient Solution

The Parker P3X Series membrane air dryers employ an advanced molecular membrane technology that dries the compressed air and lowers the pressure dewpoint (PDP). The compact space saving design offer the user uncompromised performance from a dedicated “point-of-use” air dryer. It is easy to install and will transform an ordinary process into a highly reliable and efficient production operation.

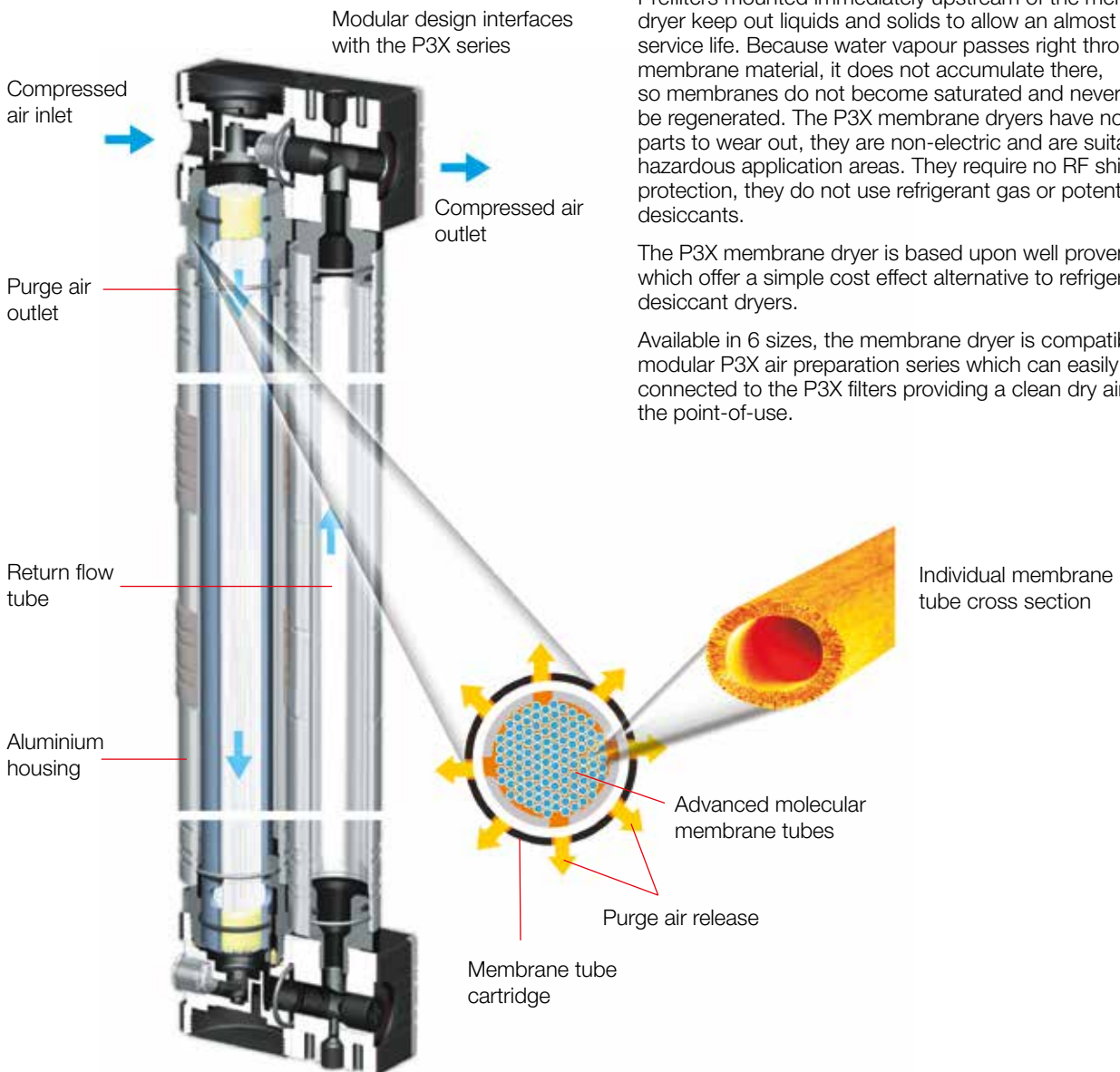
The membrane material is formed into bundles of individual fibres retained in a cartridge. Water vapour escapes through the walls of the fibre to a sweep chamber from where it is continuously vented to atmosphere as a gas. A fraction of the dried air is routed through the sweep chamber to continuously purge and exhaust moisture vapour.

The P3X series membrane dryers can be used for many years to dry air continuously. They instantly respond to any change in inlet conditions. The P3X dryers perform at temperatures between 2° and 60° C (ambient or inlet) and handle pressure from 5 bar to 16 bar. The inlet flow rate and pressure determine the outlet dew point suppression. In other words, membrane dryers deliver a constant level of drying protection that follow the rise or fall of the inlet dew point temperature.

Prefilters mounted immediately upstream of the membrane dryer keep out liquids and solids to allow an almost unlimited service life. Because water vapour passes right through the membrane material, it does not accumulate there, so membranes do not become saturated and never need to be regenerated. The P3X membrane dryers have no moving parts to wear out, they are non-electric and are suitable for hazardous application areas. They require no RF shielding or protection, they do not use refrigerant gas or potentially dusty desiccants.

The P3X membrane dryer is based upon well proven principles which offer a simple cost effect alternative to refrigeration and desiccant dryers.

Available in 6 sizes, the membrane dryer is compatible with the modular P3X air preparation series which can easily be connected to the P3X filters providing a clean dry air system at the point-of-use.



Advantages of the P3X Series Membrane Dryers

Dried compressed air is immediate



No electrical connection necessary

Suitable for hazardous areas



No CFC's/FC's

Compatible with the P3X series modular air preparation series



Low pressure drop

No moving parts

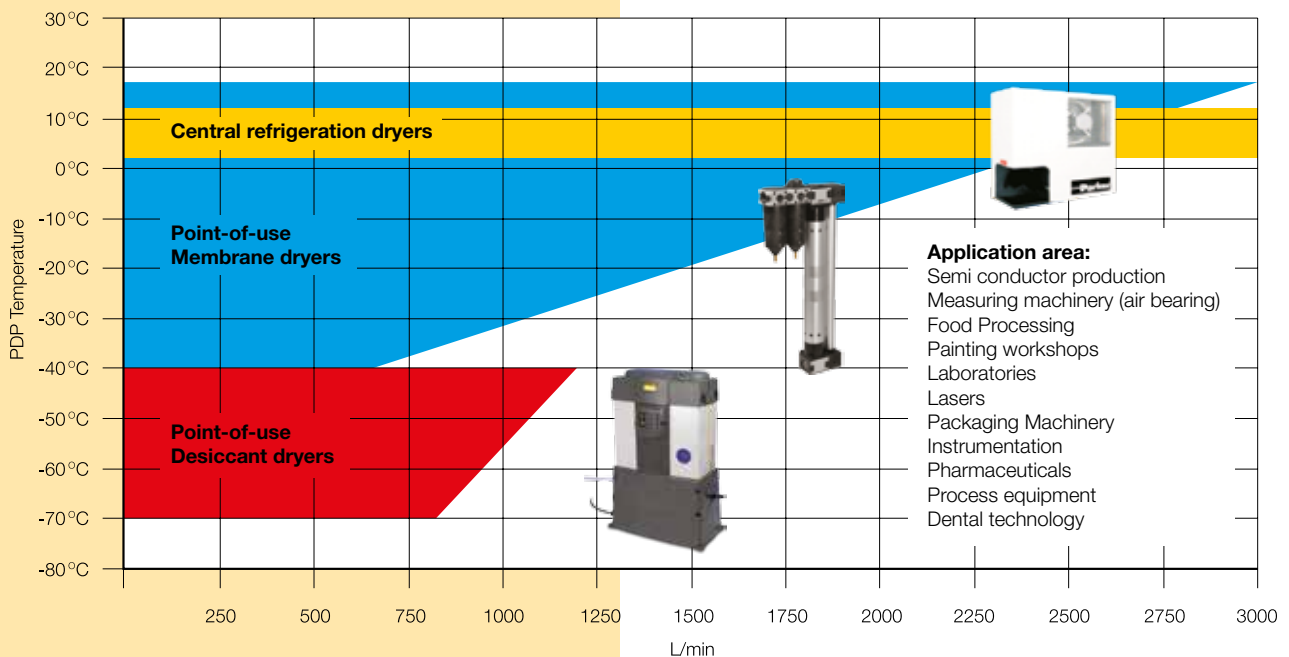
No drying medium required

Low purge air usage

Low operating costs



Dryer types with PDP reduction & flow values



- Removes water vapour & lowers the PDP
- Compact design
- No electrical connections necessary
- Suitable for hazardous environments
- No moving parts
- Maintenance & wear free
- No change in air consumption
- Low pressure drop less than 0.1 bar
- Minimal purge air consumption
- Modular design - compatible with the P3X air prep series



Membrane dryer

Port size	Size	Description	Order Code
G1/2	10	Membrane dryer with return tube	P3XJA14CA1N
G1/2	15	Membrane dryer with return tube	P3XJA14CB1N
G1/2	20	Membrane dryer with return tube	P3XJA14CC1N
G1/2	25	Membrane dryer with return tube	P3XJA14CD1N
G1/2	35	Membrane dryer serial type	P3XJA14CE1N
G1/2	50	Membrane dryer serial type	P3XJA14CF1N



Note: For NPT threaded connections replace the 6th digit from **1** to **9** i.e. P3XJA**9**4CA1N

Wall mounting bracket kit

Order Code	Description
P3XKA00MWD	Top & bottom wall mounting bracket

Note:

For optimum system performance and maintenance free conditions, Parker recommend the dryer is preceded with a 5 micron and 0.01 coalescer filter from the P3X series.

Complete Filter / Dryer System combinations available on request



F + Fc + MD



F + Fc + MD + R



F + Fc + MD + R + Fa

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