



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



# P3X Series Moduflex Lite Air preparation system

G1/2 & G3/4 Body ported

Catalogue no. PDE2620TCUK June 2011



ENGINEERING YOUR SUCCESS.

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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 Moduflex 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 Moduflex 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 Moduflex 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 Moduflex Lite a very cost effective solution.

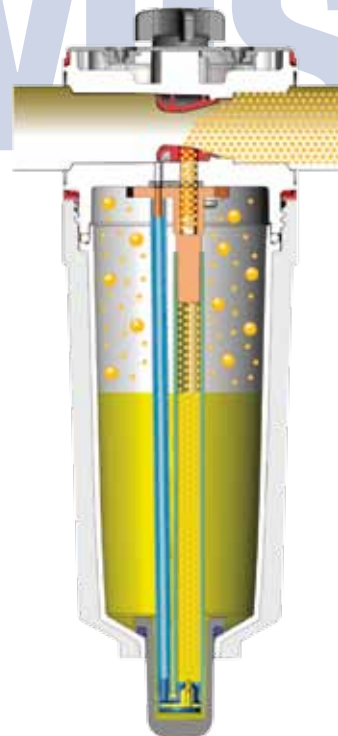


# Nano Mist

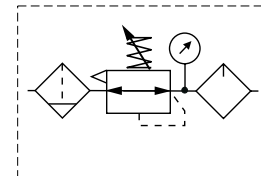
**New Nano Mist Technology,  
New Lubricator Concept.  
Self-Adjusting.**

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

The Moduflex 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 Moduflex Lite allows for distances of up to 40 meters. This opens up new scope for the design of even more efficient production systems.

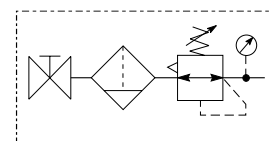


**Popular Combinations**



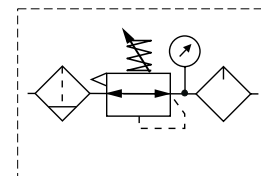
**Slide Valve + Filter/Regulator + Lubricator Combinations (50mg/m<sup>3</sup>)**  
**5 micron element, 8 bar Regulator + Gauge and Wall Mounting Brackets**

Port size	Combined Manual/Semi-Auto Drain	Flow dm <sup>3</sup> /s	Weight (g)	Auto Drain	Flow dm <sup>3</sup> /s	Weight (g)
G <sup>1</sup> / <sub>2</sub>	<b>P3XAA14GECNGPNW</b>	76	1300	<b>P3XAA14GEANGPNW</b>	76	1300
G <sup>3</sup> / <sub>4</sub>	<b>P3XAA16GECNGPNW</b>	77	1300	<b>P3XAA16GEANGPNW</b>	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 <sup>3</sup> /s	Weight (g)	Auto Drain	Flow dm <sup>3</sup> /s	Weight (g)
G <sup>1</sup> / <sub>2</sub>	<b>P3XAN14GECNGW</b>	105	950	<b>P3XAN14GEANGW</b>	105	950
G <sup>3</sup> / <sub>4</sub>	<b>P3XAN16GECNGW</b>	106	950	<b>P3XAN16GEANGW</b>	106	950



**Filter/Regulator + Lubricator Combinations (50mg/m<sup>3</sup>)**  
**5 micron element, 8 bar Regulator + Gauge and Wall Mounting Brackets**

Port size	Combined Manual/Semi-Auto Drain	Flow dm <sup>3</sup> /s	Weight (g)	Auto Drain	Flow dm <sup>3</sup> /s	Weight (g)
G <sup>1</sup> / <sub>2</sub>	<b>P3XCA14GECNGPNW</b>	76	1000	<b>P3XCA14GEANGPNW</b>	76	1000
G <sup>3</sup> / <sub>4</sub>	<b>P3XCA16GECNGPNW</b>	77	1000	<b>P3XCA16GEANGPNW</b>	77	1000

**Options:**

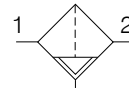
<b>P 3 X</b>				<b>G E</b>				<b>W</b>
Filter/Reg + Lubricator	<b>CA</b>	BSPG (G) <b>1</b>		Combined Manual/Semi Auto Drain	<b>C</b>	0 - 8 bar with gauge	<b>G</b>	
Slide valve + Filter/Reg	<b>AN</b>	NPT * <b>9</b>		Auto Drain	<b>A</b>	0 - 16 bar with gauge	<b>J</b>	
Slide valve + Filter/Reg + Lubricator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

\* NPT ports on request  
 1/2" size only

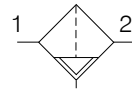
**Filter**



**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:**

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

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

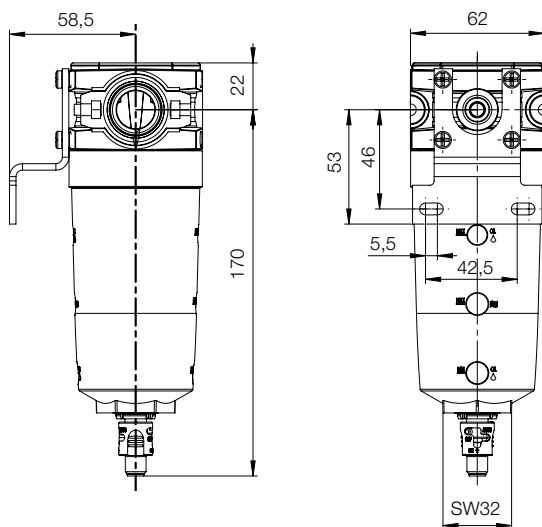
\* flow with 6,3 bar inlet pressure and 0,5 pressure drop.

**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 <sup>3</sup> /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 <sup>3</sup>

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

**Dimensions (mm)**



**Service kits**

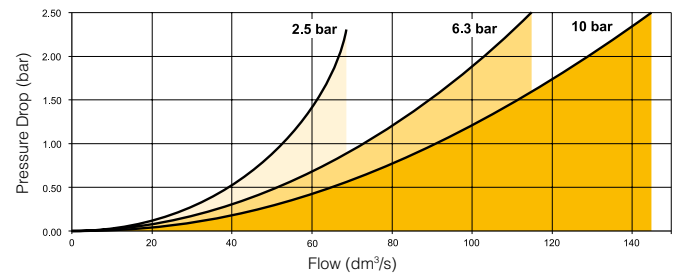
Description	Order code
5 micron element kit	<b>P3XKA00ESE</b>
40 micron element kit	<b>P3XKA00ESG</b>
Bowl kit with combines manual/semi auto drain	<b>P3XKA00BSC</b>
Bowl kit with auto drain	<b>P3XKA00BSA</b>
1 micron element kit	<b>P3XKA00ES9</b>

**Material Specification**

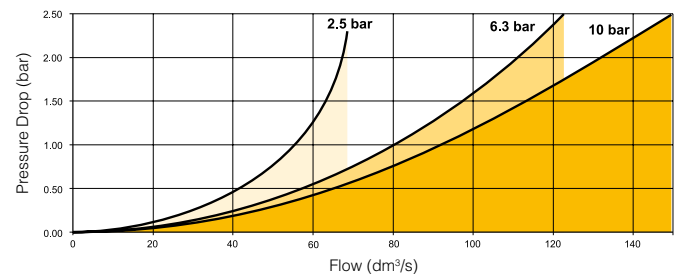
Body:	High tech polymer
Sight glass:	Polypropylene
Body cover:	ABS
Element:	Sintered P.E.
Seals:	Nitrile NBR
Drains:	Manual / Semi-auto: Acetal Automatic: PA / Brass

**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:**

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

\* NPT ports on request  
 1/2" size only

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

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



**Technical Information**

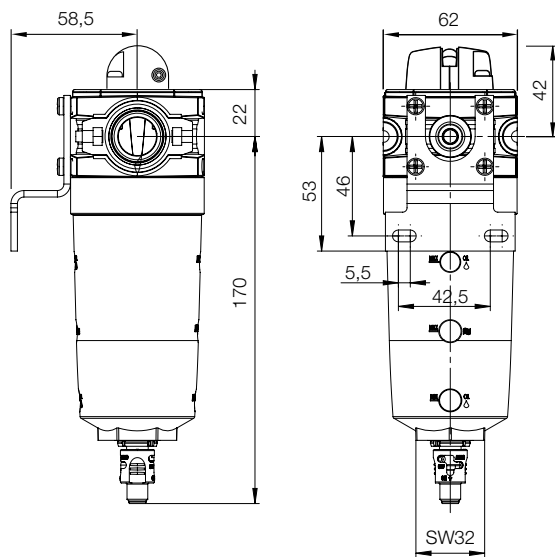
Fluid:	Compressed air
Maximum inlet pressure:	16 bar
Temperature range*:	-10°C to +60°C
Media specifications:	
Coalescing efficiency	(0.3 to 0.6 micron particles): 99.97%
Max. oil carryover (PPM w/w):	0.008 mg/m <sup>3</sup>
Typical flow element @ 6,3 bar inlet pressure and 0.2 bar pressure drop:	16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

\* 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)**

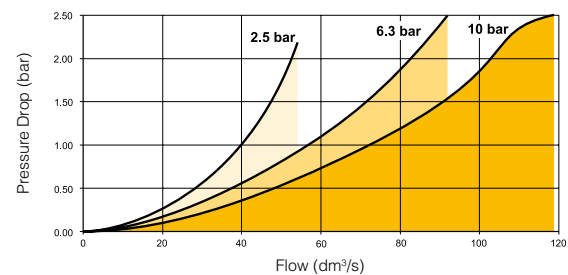


**Service kits**

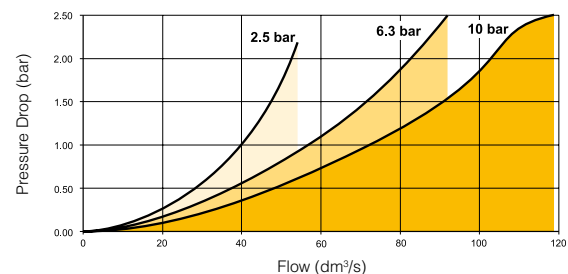
Description	Order code
0.01 micron coalescing element kit	<b>P3XKA00ESC</b>
Bowl kit with combines manual/semi auto drain	<b>P3XKA00BSC</b>
Bowl kit with auto drain	<b>P3XKA00BSA</b>
Differential pressure indicator kit	<b>P3XKA00RQ</b>

**Flow characteristics**

**(1/2) 0.01µm Coalescing Filter Saturated**



**(3/4) 0.01µm Coalescing Filter Saturated**



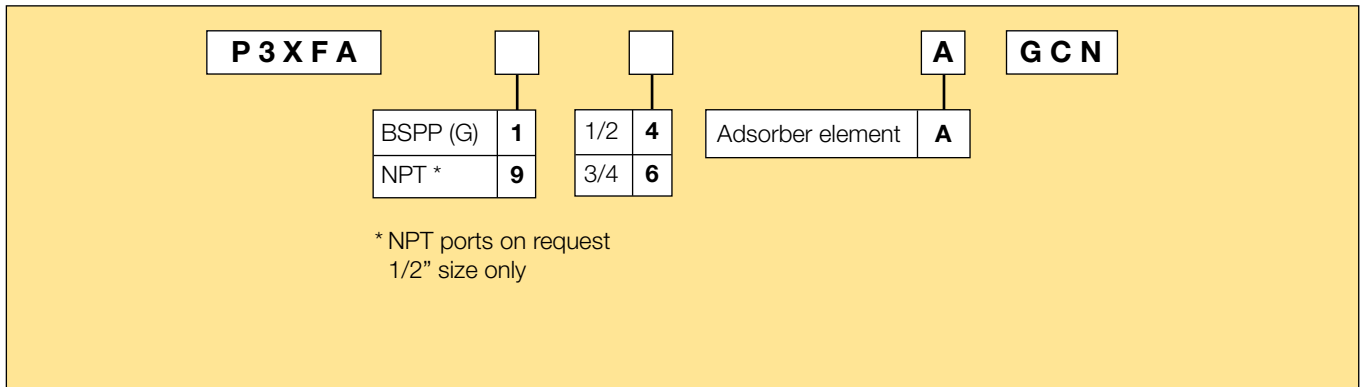
**Adsorber Filter**



- 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 <sup>3</sup> /s *	Max bar	Min temp °C	Max temp °C	Bowl capacity cm <sup>3</sup>	Height mm	Width mm	Depth mm	Weight g
1/2	Adsorber Filter, Manual / Semi-auto drain	<b>P3XFA14AGCN</b>	18	16	-10	60	60	192	62	62	320
3/4	Adsorber Filter, Manual / Semi-auto drain	<b>P3XFA16AGCN</b>	18	16	-10	60	60	192	62	62	320

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

**Technical Information**

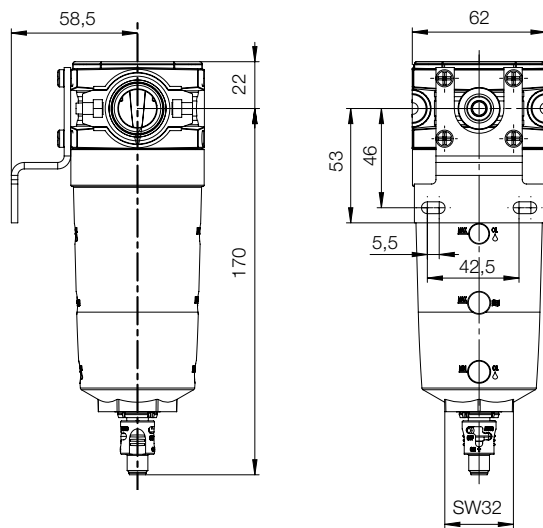
Fluid:	Compressed air	
Maximum inlet pressure:	16 bar	
Temperature range*:	-10°C to +60°C	
Typical flow at 6,3 bar inlet pressure and 0.2 bar pressure drop:	Adsorber	18 dm <sup>3</sup> /s
Manual / Semi-auto drain:	1/8" connection	
to close connection	0.8 bar	

\* 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)**

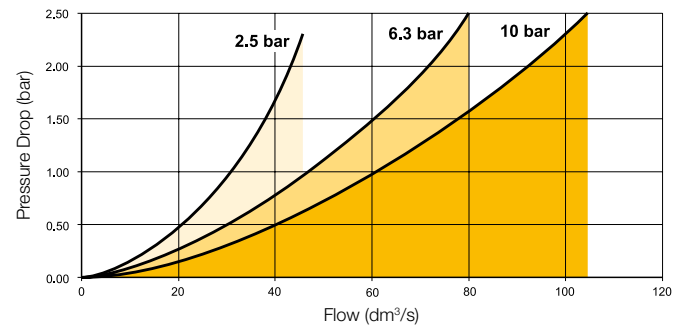


**Service kits**

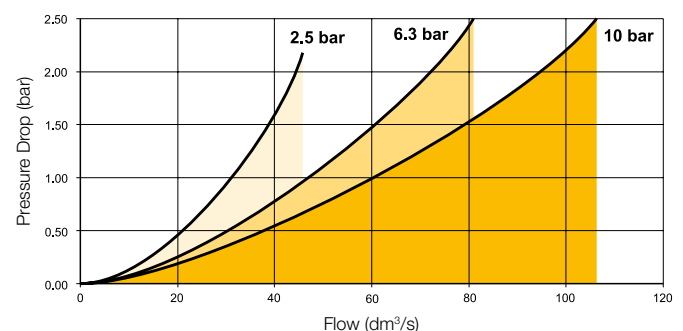
Description	Order code
Adsorber element kit	<b>P3XKA00ESA</b>
Bowl kit with manual drain	<b>P3XKA00BSC</b>

**Flow characteristics**

**(1/2) Adsorber Filter**



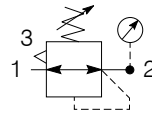
**(3/4) Adsorber Filter**



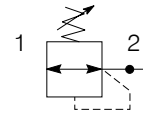
**Regulator**



**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:**

<b>P 3 X R A</b>	□	□	□	□	□	□	<b>N</b>
BSPP (G) <b>1</b>	1/2 <b>4</b>	Relieving <b>B</b>	Non rise - standard <b>N</b>	0 - 4 bar No Gauge <b>L</b>			
NPT * <b>9</b>	3/4 <b>6</b>	Non-relieving <b>N</b>	Tamperproof - Lockable <b>A</b>	0 - 8 bar No Gauge <b>N</b>			
				0 - 16 bar No Gauge <b>H</b>			
				0 - 4 bar Gauge <b>M</b>			
				0 - 8 bar Gauge <b>G</b>			
				0 - 16 bar Gauge <b>J</b>			

\* NPT ports on request  
 1/2" size only

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

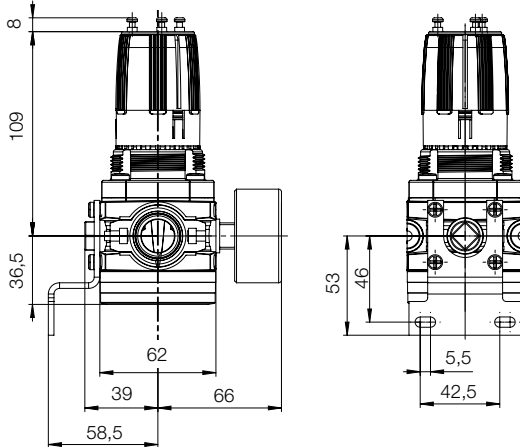
Fluid:	Compressed air	
Maximum inlet pressure:	16 bar	
Temperature range*:	-40°C to +60°C	
Typical flow with 10 bar inlet pressure, 6.3 bar set pressure and 1 bar pressure drop:	1/2"	122 dm <sup>3</sup> /s
	3/4"	134 dm <sup>3</sup> /s
Gauge port ( x 2 ):	1/4"	

\* 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	<b>P3XKA00MW</b>
Panel mounting nut	<b>P3XKA00MM</b>
Key lock	<b>P3XKA00AS</b>
Diaphragm kit (relieving type)	<b>P3XKA00RR</b>
Diaphragm kit (non-relieving type)	<b>P3XKA00RN</b>

**Lockable Tamperproof Kit** (up to x 3 padlocks)

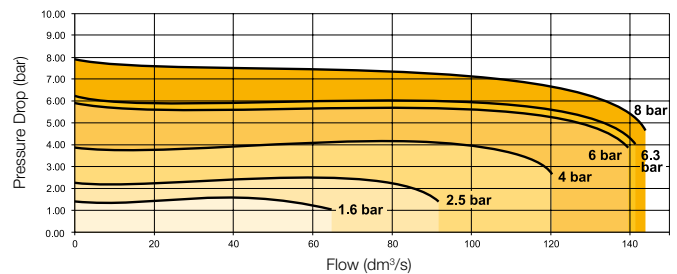
This facilitates the tamperproofing of the Regulator and Filter-Regulator units. (On request)



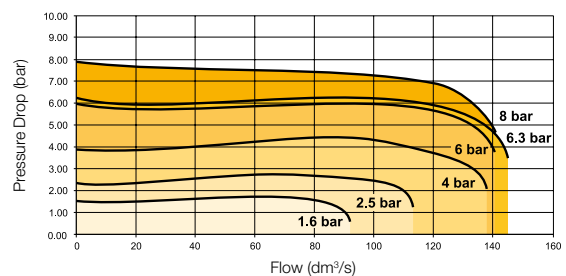
Order code
1 Padlock each
<b>P3XKA00AS</b>

**Flow characteristics**

**Regulation characteristics: (1/2)**



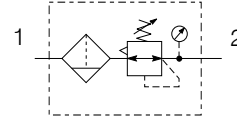
**Regulation characteristics: (3/4)**



**Filter-Regulator**

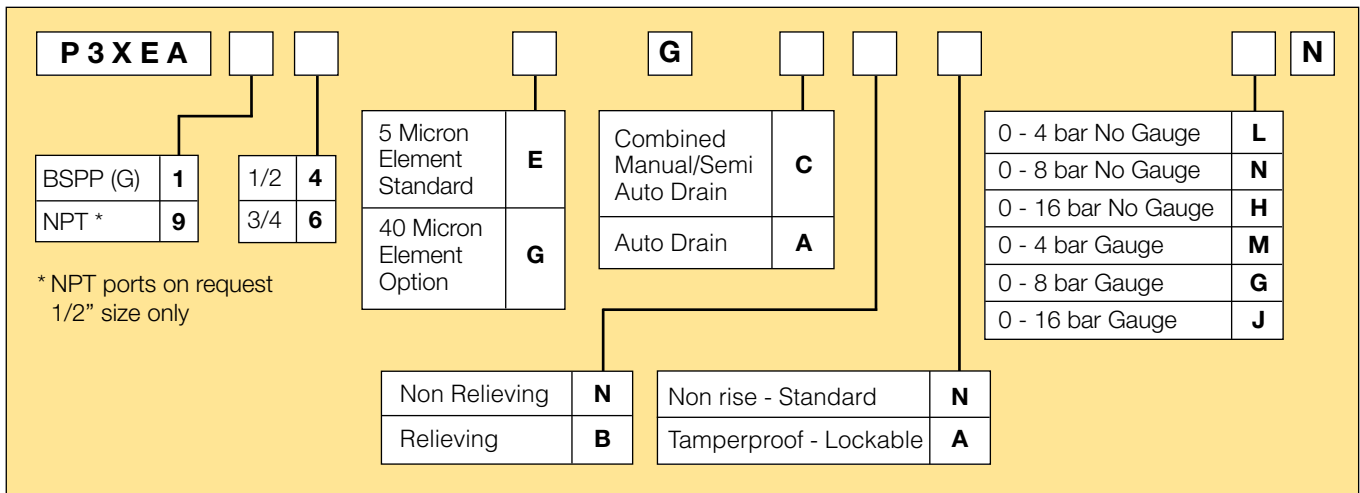


**Symbols**



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

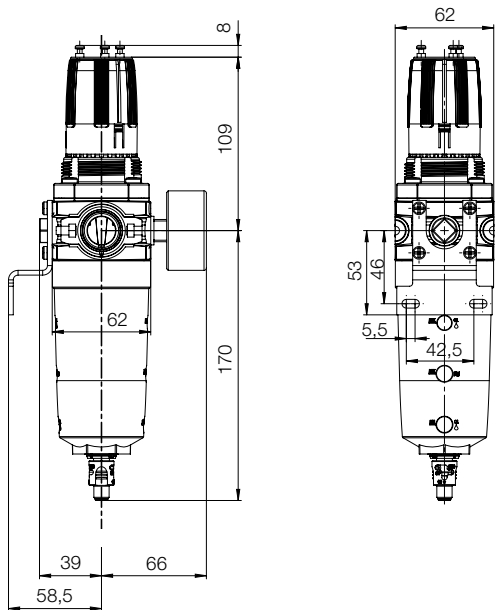
\* flow with 10 bar inlet pressure, 6,3 bar set pressure and 1 bar pressure drop.

**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 <sup>3</sup> /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 <sup>3</sup>
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**

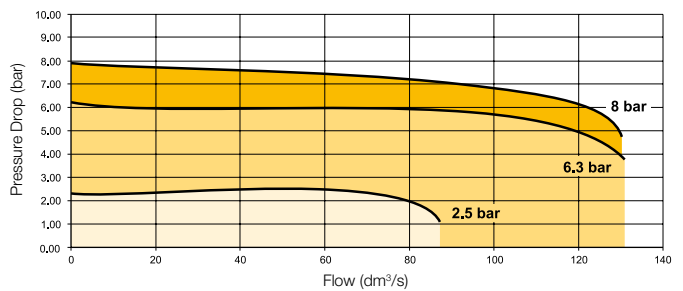
Description	Order code
5 micron element kit	<b>P3XKA00ESE</b>
40 micron element kit	<b>P3XKA00ESG</b>
Bowl kit with combined manual/semi auto drain	<b>P3XKA00BSC</b>
Bowl kit with auto drain	<b>P3XKA00BSA</b>
Tamper-proof knob kit (keylock)	<b>P3XKA00AS</b>
Diaphragm kit (relieving type)	<b>P3XKA00RR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

**Material Specification**

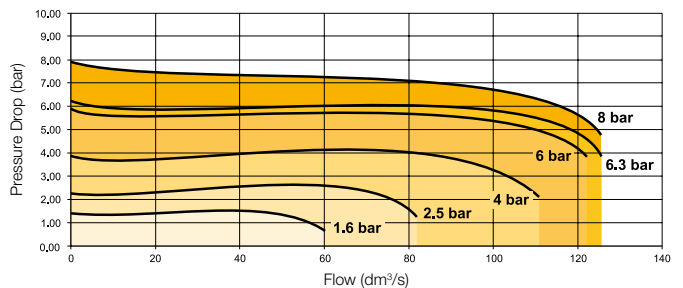
Body:	High tech polymer
Sight glass:	Polypropylene
Body cover:	ABS
Element:	Sintered P.E.
Seals:	Nitrile NBR
Drains:	Manual / Semi-auto: Acetal Automatic: PA / Brass
Bonnet:	High tech polymer
Control knob:	Polyamide
Valve:	Brass / Nitrile
Screws:	Stainless steel

**Flow characteristics**

**(1/2) 5 Micron Filter/Regulator**



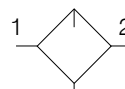
**(3/4) 5 Micron Filter/Regulator**



**Lubricator**



**Symbols**



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:**

<b>P 3 X L A</b>	□	□	□	<b>G N N</b>												
* NPT ports on request 1/2" size only	<table border="1"> <tr><td>BSPP (G)</td><td style="text-align: center;"><b>1</b></td></tr> <tr><td>NPT *</td><td style="text-align: center;"><b>9</b></td></tr> </table>	BSPP (G)	<b>1</b>	NPT *	<b>9</b>	<table border="1"> <tr><td>1/2</td><td style="text-align: center;"><b>4</b></td></tr> <tr><td>3/4</td><td style="text-align: center;"><b>6</b></td></tr> </table>	1/2	<b>4</b>	3/4	<b>6</b>	<table border="1"> <tr><td>5 mg/m<sup>3</sup></td><td style="text-align: center;"><b>S</b><sup>1)</sup></td></tr> <tr><td>50 mg/m<sup>3</sup></td><td style="text-align: center;"><b>P</b><sup>2)</sup></td></tr> </table>	5 mg/m <sup>3</sup>	<b>S</b> <sup>1)</sup>	50 mg/m <sup>3</sup>	<b>P</b> <sup>2)</sup>	
BSPP (G)	<b>1</b>															
NPT *	<b>9</b>															
1/2	<b>4</b>															
3/4	<b>6</b>															
5 mg/m <sup>3</sup>	<b>S</b> <sup>1)</sup>															
50 mg/m <sup>3</sup>	<b>P</b> <sup>2)</sup>															

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

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

<sup>1)</sup> Best for pre-lubricated pneumatic components (e.g. rodless cylinder, actuators, valves etc.)

<sup>2)</sup> 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

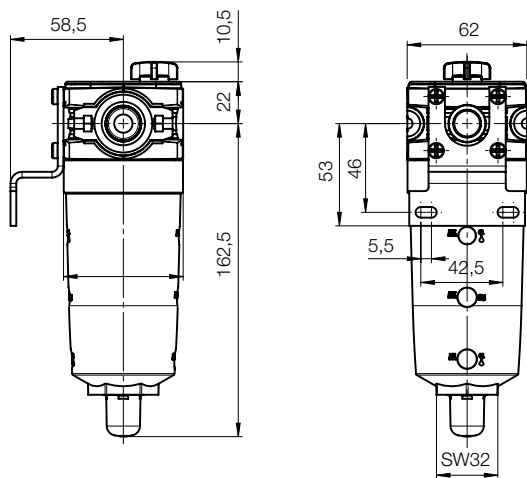
\* Air supply must be dry enough to avoid ice formation at temperatures below +2° C  
 Low flow start point (lubrication pick-up): at 6.3bar inlet pressure 7 dm<sup>3</sup>/s  
 Typical flow with 6.3bar inlet pressure and 0.5 bar pressure drop: 78 dm<sup>3</sup>/s

**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)**

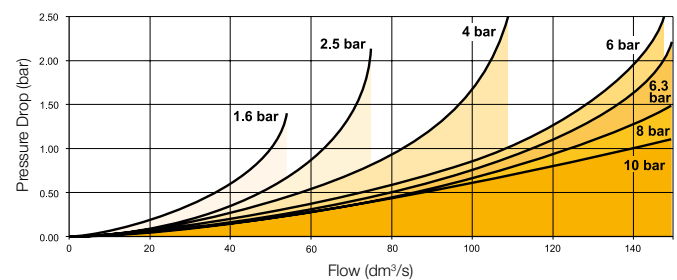


**Service kits**

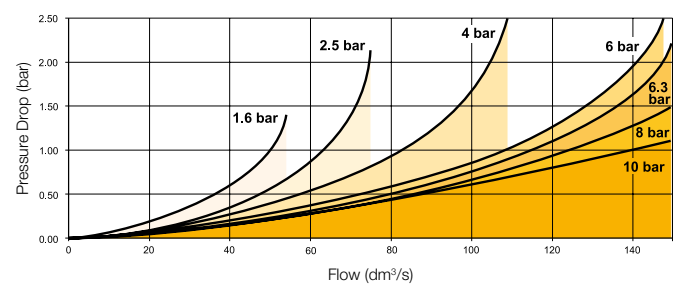
Description	Order code
Bowl kit	<b>P3XKA00BSN</b>
Refill plug	<b>P3XKA00PL</b>
Oil VG15 - 100ml	<b>P3XKA00PPA</b>

**Flow characteristics**

**(1/2) Lubricator**



**(3/4) Lubricator**

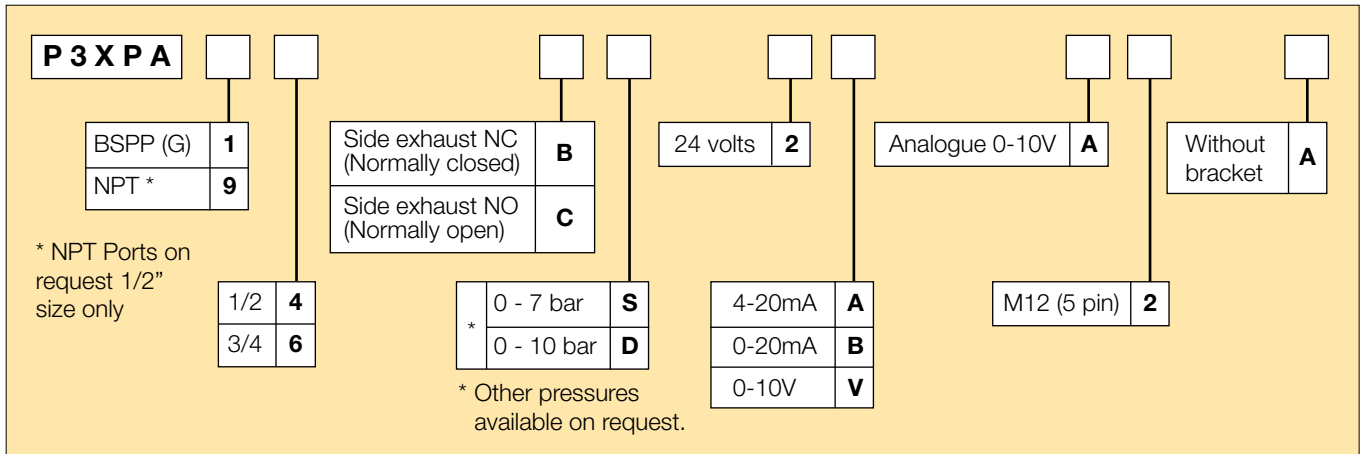


**Proportional Pressure Regulator**



- 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	<b>P3XPA14BD2VA2A</b>	0 - 10 V	0 - 10 V	0 - 10 bar	0.75
3/4	Normally closed	<b>P3XPA16BD2VA2A</b>	0 - 10 V	0 - 10 V	0 - 10 bar	0.75

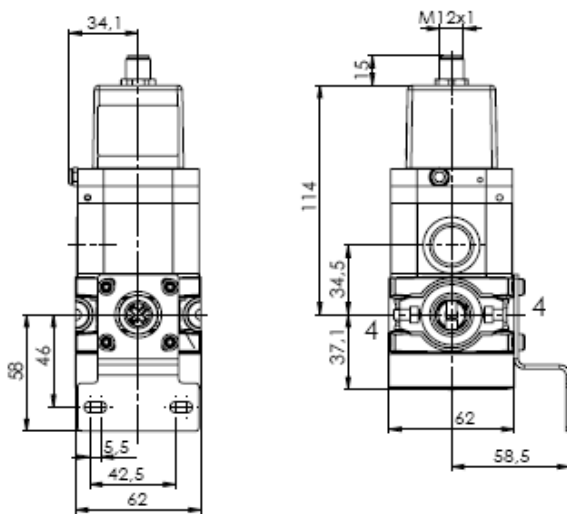
**Technical Information**

Operating pressure range	P <sup>1</sup> min	1 bar
Inlet pressure <sup>1)</sup>	P <sup>1</sup> max	16 bar
Operating pressure range	P <sup>2</sup> min	0.2 bar
Outlet pressure	P <sup>2</sup> max	10 bar
Operating Temperature	0°C to +50°C	
Maximum Flow <sup>2)</sup>	Q <sub>n</sub>	dm <sup>3</sup> /s 160
Hysteresis	P <sup>2</sup> max	< 1%
Repeatability	P <sup>2</sup> max	< 0.5%
Sensitivity	P <sup>2</sup> max	< 0.5%
Linearity	P <sup>2</sup> max	< 1%
Nominal voltage	U <sub>n</sub> V DC	24V = ±10%
Residual ripple	10%	
Power consumption	I <sub>Bmax</sub>	0.15 A
Set value input	U <sub>w</sub> V	0 - 10
	I mA	0 - 20
	I mA	4 - 20
Input resistance	R <sub>E</sub>	243 K $\Omega$
Actual valve output	U <sub>x</sub>	0 - 10 V
Output current	I <sub>Amax</sub>	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)**

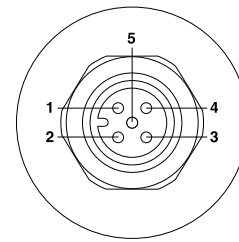


\* Two opposite gauge ports G1/4, plug screw mounted  
 \*\* Connection for 5-pin plug M12 x 1  
 \*\*\* Exhaust port 1/2"

**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%

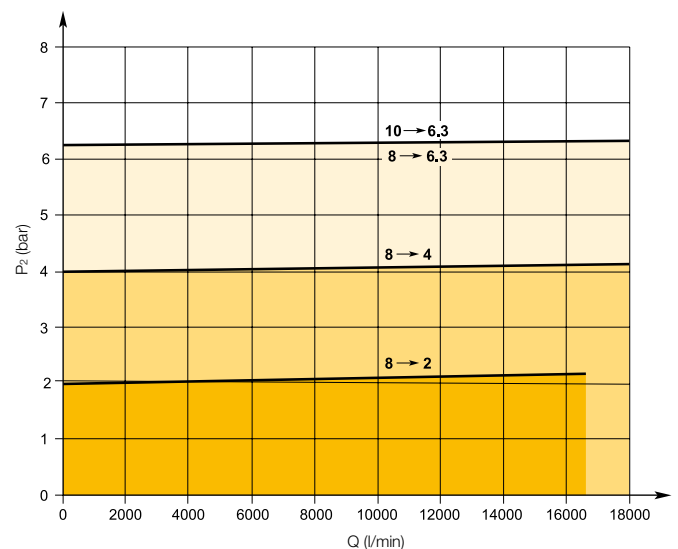
**Pin 2:**  
 Power supply 0 V  
 Reference and mass capacity  
 for set value and actual value

**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

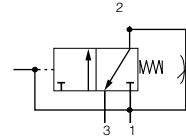
**Flow characteristics**



**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:**

<b>P 3 X</b>	<input type="checkbox"/>	<b>A</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>N</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Combined soft start dump valve	<b>T</b>	External air pilot	<b>P</b>	None (operator is fitted to valve)		<b>0</b>	Solenoid type only		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Dump valve	<b>D</b>	Solenoid pilot	<b>S</b>	30mm CNOMO coil (Form connection)	<b>A</b>	Solenoid / coil not fitted		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>000</b>
BSPP (G)	<b>1</b>	30mm operator	<b>C</b>	22mm coil (Form connection)	<b>B</b>	24V DC		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>2CN</b>
NPT *	<b>9</b>	Threaded air pilot	<b>P</b>	30mm CNOMO coil (M12 connection)	<b>D</b>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
				22mm coil (M12 connection)	<b>E</b>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
								<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
								<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

\* NPT Ports on request 1/2" size only

**Combined soft start dump valve**

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

**Technical Information**

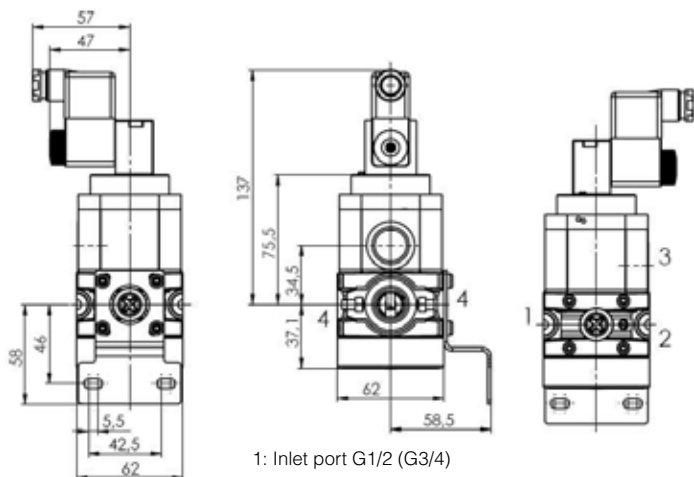
Fluid:	Compressed air
Maximum pressure Solenoid operated 22mm coil:	10 bar
Maximum pressure Solenoid operated 30mm coil:	16 bar
Minimum operating pressure:	2 bar
Temperature range* Solenoid operated:	-10° to + 60° C
Temperature range* Air Pilot operated:	-10° to + 60° C
Air Pilot port:	1/8"
Exhaust port:	1/2"
Gauge port:	1/4"
Typical flow with 6.3bar inlet pressure and 1 bar pressure drop:	1/2" 80 dm <sup>3</sup> /s
	3/4" 80 dm <sup>3</sup> /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

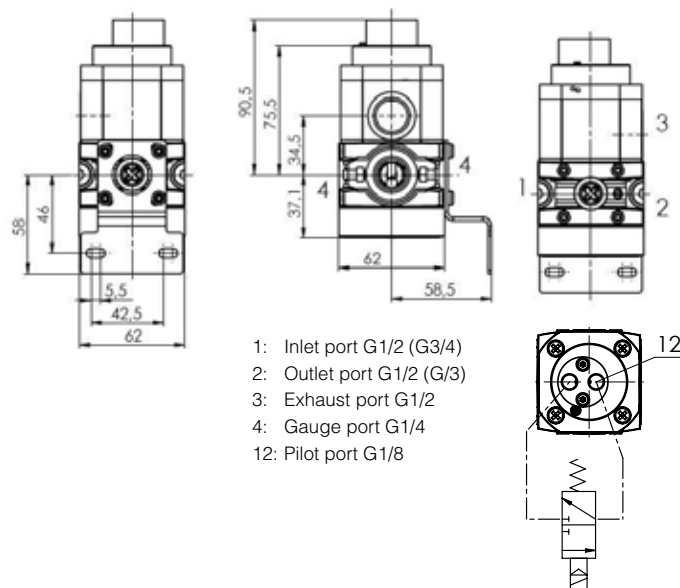
**Material Specification**

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

**Dimensions (mm)**

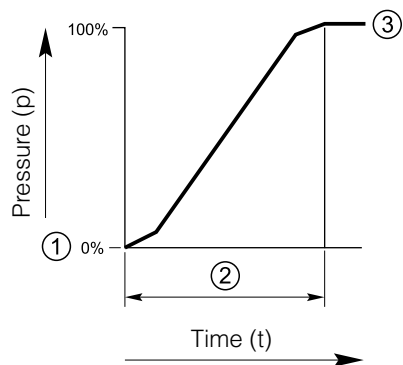


- 1: Inlet port G1/2 (G3/4)
- 2: Outlet port G1/2 (G/3)
- 3: Exhaust port G1/2
- 4: Gauge port G1/4



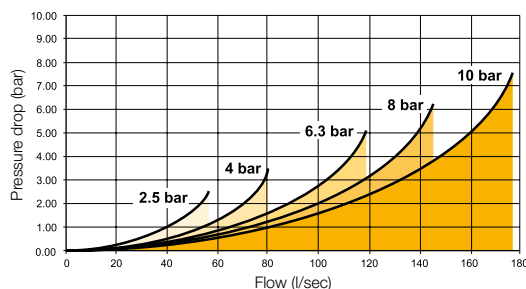
- 1: Inlet port G1/2 (G3/4)
- 2: Outlet port G1/2 (G/3)
- 3: Exhaust port G1/2
- 4: Gauge port G1/4
- 12: Pilot port G1/8

**Flow characteristics**

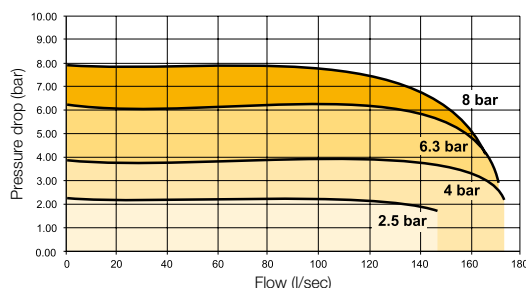


- ① Start signal
- ② Switching time delay
- ③ Operating pressure  $p^2 (=p^1)$

**Soft Start Dump Valve 24v 1/2" Port**

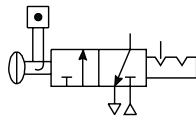


**Pilot Regulator 1/2" Port**



**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:**

<b>P 3 X</b>	<b>V A</b>			<b>LS N</b>
BSPP (G)	<b>1</b>	G1/2	<b>4</b>	
NPT *	<b>9</b>	G3/4	<b>6</b>	

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

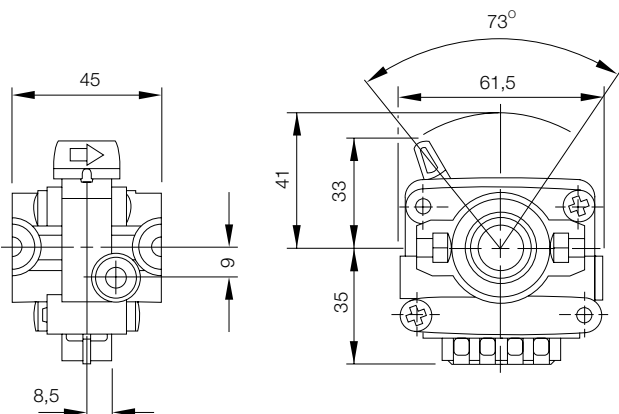
**Technical Information**

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**



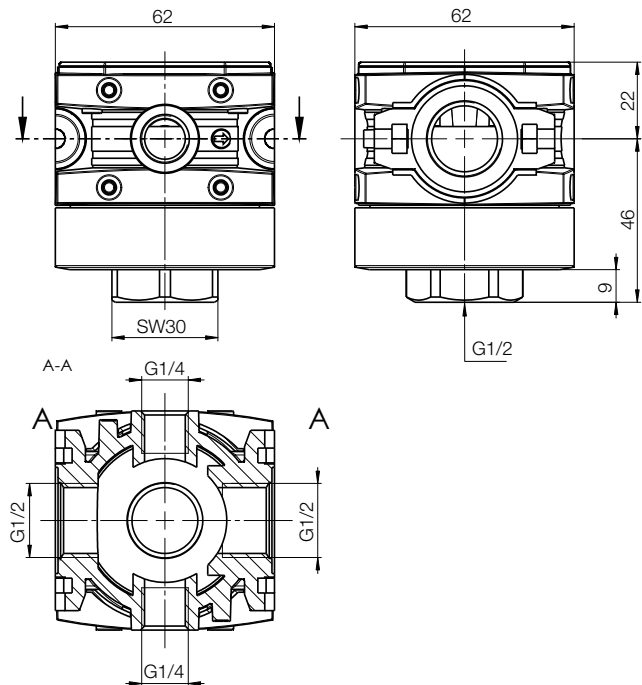
P3X Series Manifolds, provide up to 2 extra outlet ports, they may be assembled at any position in a combination e.g. before the lubricator to provide oil free take off or at the end of a combination to provide extra outlet ports.

Description	Order code BSPP	Order code NPT	Weight (g)
G1/2"	<b>P3XMA1V0N</b>	<b>P3XMA9V0N</b>	170
G3/4"	<b>P3XMA160N</b>		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	<b>P2FCA445</b>	0.105	<b>P2FCB445</b>	0.093
24V DC	<b>P2FCA449</b>	0.105	<b>P2FCB449</b>	0.093
48V DC	<b>P2FCA453*</b>	0.105	<b>P2FCB451</b>	0.093
Alternative current				
12V 50/60Hz	<b>P2FCA440</b>	0.105	<b>P2FCB440</b>	0.093
24V 50/60Hz	<b>P2FCA442</b>	0.105	<b>P2FCB442</b>	0.093
48V 50/60Hz	<b>P2FCA469<sup>#</sup></b>	0.105		
110V 50Hz, 120V 60Hz	<b>P2FCA453</b>	0.105	<b>P2FCB453</b>	0.093
230V 50Hz, 230V 60Hz	<b>P2FCA457</b>	0.105	<b>P2FCB457</b>	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	<b>P2FC6419</b>	0.065	<b>P2FC7419</b>	0.065

**Accessories**

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









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