



Basic	$\frac{1}{4}$ " $\frac{1}{2}$ " 1" 2"
Comfort	$\frac{1}{4}$ " $\frac{1}{2}$ "
Comfort	$\frac{1}{2}$ " HP 1" 2"
Comfort ATEX	$\frac{1}{2}$ " 1" 2"



Lucifer® EPP4 Proportional Pressure Regulator Range



ENGINEERING YOUR SUCCESS.

Lucifer® EPP4 Configurable Pressure Regulator

EPP4 is an electro pneumatic pressure regulator with integrated electronic system.

A pulsed width modulated solenoid valve controls the output pressure proportionally to an analog input signal.

Very high accuracy is guaranteed thanks to a high precision closed loop signal provided by a built in pressure sensor.



Market

Robotics
Paper industry
Machine tools
Mobile
Buildings
Textile
Instrumentation
Semi conductor



Description of Applications

Welding
Speed and brake control
Sanding
Cutting
Humidification
Tension regulation
Painting
Presses
Polishing
Adaptative suspension control



Value Propositions for the Lucifer® EPP4 Range of Proportional Pressure Regulators



- All parameters fully adjustable through the PC software Calys
- Easy to use software
- Long life expectancy
- Compact and light
- Limited inventory
- Low power
- Proven expertise of Parker, a pioneer in pressure regulation technology

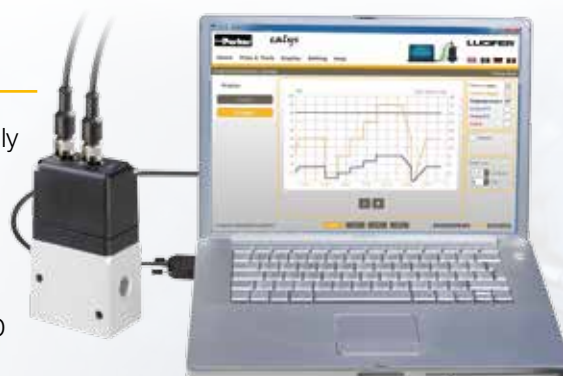


calys Software - for EPP Comfort

Calys is a unique in-house developed software that easily configures all the parameters of the EPP4 Comfort range. A cable reference 496449 is needed for the communication between the EPP4 and a PC.

The Calys software offers many capabilities:

- Provides flexibility for your application by adjusting PID regulation parameters
- Monitoring (pressure, setpoint, alarm...)
- Allows remote maintenance operation by exporting all parameters
- Configurable setpoint signal (0-10V - 4-20mA) and adjustable pressure range



To download free Calys software click on www.parker.com/FCDE/Support



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Lucifer® EPP4 Introduction

Description Operation

The EPP4 Series is a family of electrically remote-controlled pneumatic pressure regulators with closed loop integrated electronic control.

It allows regulating the outlet pressure proportionally to an electrical control signal.

The EPP4 regulator comprises a traditional servo-operated pneumatic pressure regulator, where the pilot chamber is fed by one or the other of two pulse width modulated 2-way solenoid valves.

The pressure sensor measures the outlet pressure of the regulator and provides a feedback signal to the controller.

Any difference between the control signal and the feedback signal is converted to a digital signal to energise the coil of one or the other 2-way valves to correct the position of the regulator.

The control signal can be a voltage (0-10 V) or a current (4-20 mA). The inlet of the "**Filling Valve**" is connected directly to the main inlet P of the

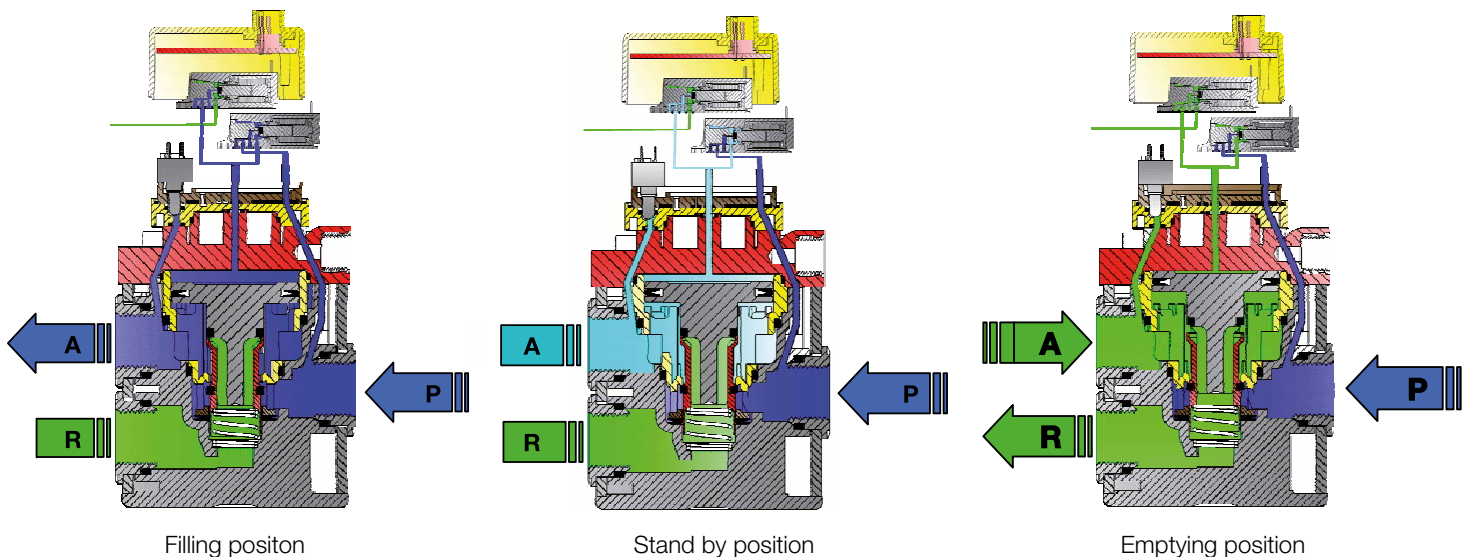
regulator; when energised this valve will fill the servo-chamber for increasing the pressure at the outlet A of the regulator.

When the other "exhaust valve" is energised (reduction of pressure at the outlet A of the regulator), the pressure of the servo-chamber will be exhausted through a discharge orifice located between the cover and the body and directly fed to the atmosphere without silencer.

The exhaust of the main regulated pressure will be made through the quick exhaust R.

The use of a conventional silencer is recommended. Both solenoid valves assure the **Filling** or **Emptying** of the servo-chamber in order to increase or decrease the pressure at the outlet of the regulator.

In rest position of the valves all ports are blocked.

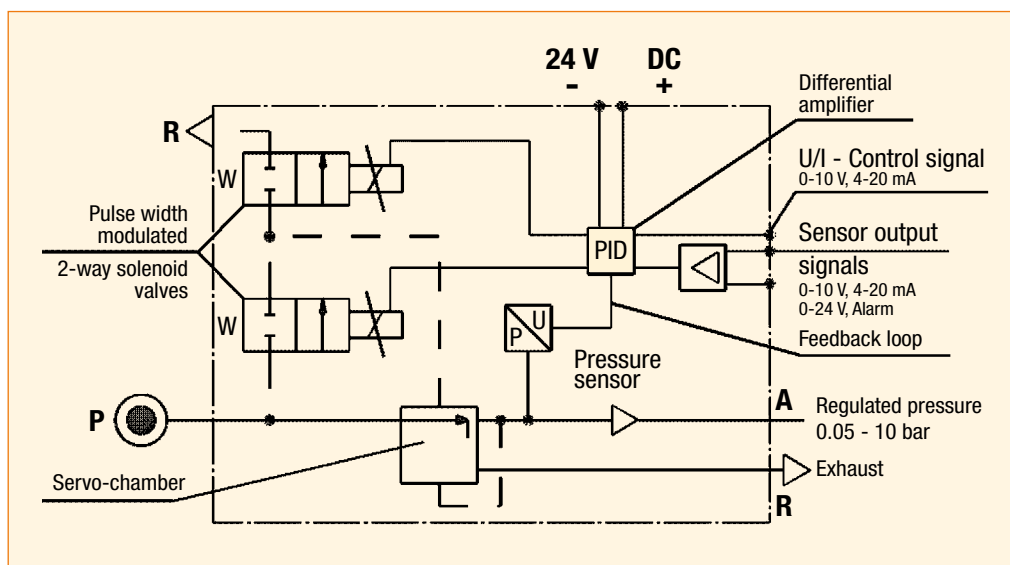


Block Diagram

The controller receives both the control signal (set pressure) and the feedback signal from the sensor (outlet pressure).

Any difference between the two amplifier inputs results in a corresponding output which drives the appropriate 2-way pulse width modulated solenoid valve so that the pilot piston moves to correct the pressure.

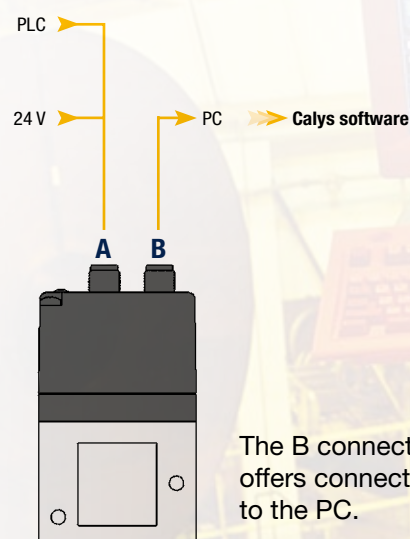
The same feedback signal from the sensor is used for the output feedback in voltage and current. The digital signal (alarm) is activated when the conditions (out of pressure or time tolerance) are met.



EPP4 possible executions : Basic and Comfort

EPP4 Basic and Comfort ranges share the same reliable mechanical parts. Proportional regulation is also identical for the two different executions, giving the same characteristics for hysteresis or precision for instance.

Comfort range regulators have a second M12 connector, that can be used to connect a PC to easily set the regulation's parameters. These are the key feature options for a comfortable use.



The B connector offers connection to the PC.

Lucifer® EPP4 Basic

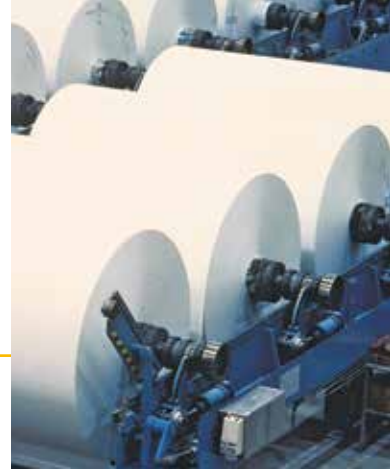
1/4", 1/2", 1" & 2"

Technical Data

Basic	1/4" 1/2" 1" 2"
Comfort	1/4" 1/2"
Comfort	1/2" HP 1" 2"
Comfort ATEX	1/2" 1" 2"

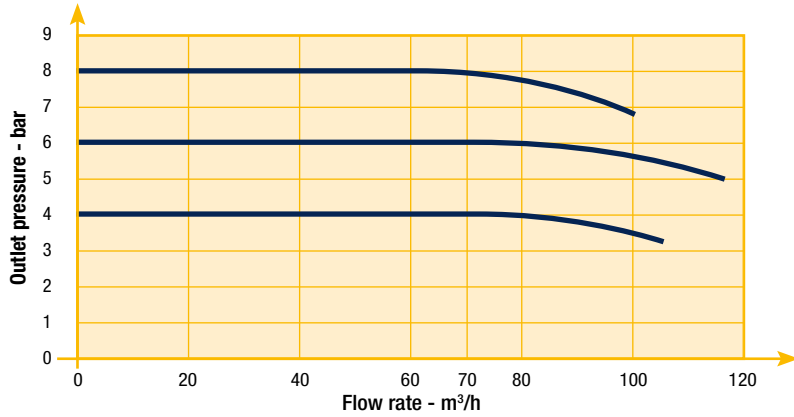
	Basic 1/4"	Basic 1/2"	Basic 1"	Basic 2"
Fluids:	Lubricated or non lubricated air and neutral gases Recommended filtration: 50 µm			
Temperature range:	Ambient: 0°C to +50 °C Fluid: 0°C to +50 °C			
Inlet pressure range: The inlet pressure must always be at least 1 bar above the regulated pressure.	1 to 12 bar			
Outlet pressure range:	0.05 to 10 bar			
Hysteresis:	± 50 mbar (factory set up)		± 100 mbar (factory set up)	
Air consumption at constant control signal:	0			
Supply voltage:	24 V DC ± 15 % (Max. ripple 1 V)			
Power consumption:	Max. 2.8 W with 24 V DC and constant changes of the control signal < 1.5 W without change of control signal		Max. 6 W with 24 V DC and constant changes of the control signal < 2 W without change of control signal	
Control signal:	Analog 0 - 10 V or 4 - 20 mA			
Max. flow:	70 m³/h	150 m³/h	1 000 m³/h	2 700 m³/h
Response Time:	With a volume of 330 cm³ at the outlet of the regulator			
Filling 2 to 4 bar:	50 ms	60 ms	-	
Filling 2 to 8 bar:	100 ms	120 ms	250 ms	
Emptying 4 to 2 bar:	70 ms	90 ms	-	
Emptying 8 to 2 bar:	130 ms	190 ms	400 ms	
Safety position:	In case of control signal failure or if it is less than 50mV, the regulated pressure drops automatically to 0 bar (atmospheric pressure). In case of voltage supply failure, the regulated pressure will be kept constant.			
Electrical connection:	M12 - 4 pin; male connector communication			
Life expectancy:	> 50 Million changes of control signal steps		> 20 Million changes of control signal steps	
Mounting position:	Indifferent (recommended position: upright; electronic part on top)			
Resistance to vibrations:	30 g in all directions			
Degree of protection:	IP 65			
Assembly:	Silicone free			
Electromagnetic compatibility: In accordance with:	EN 61000-6-1: 2001 EN 61000-6-2: 2001 EN 61000-6-3: 2001 + A11 2004 edition (01/07/07) EN 61000-6-4: 2001			
Installation and setting instructions:	See our "Notice 408038, 408014" and appendix supplied with the product.		See our "Notice 408427" and appendix supplied with the product.	

Note: Parker reserves the right to change specifications without notification.

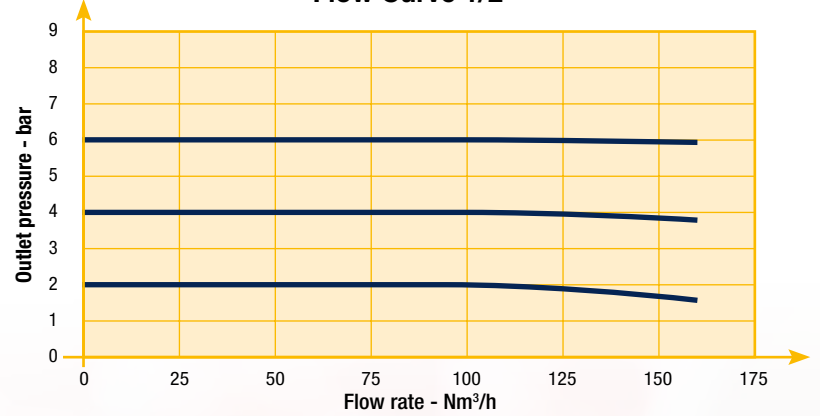


Flow Curves

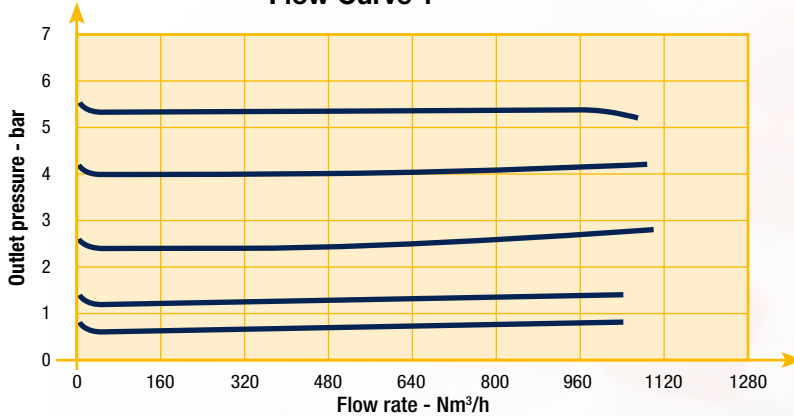
Flow Curve 1/4"



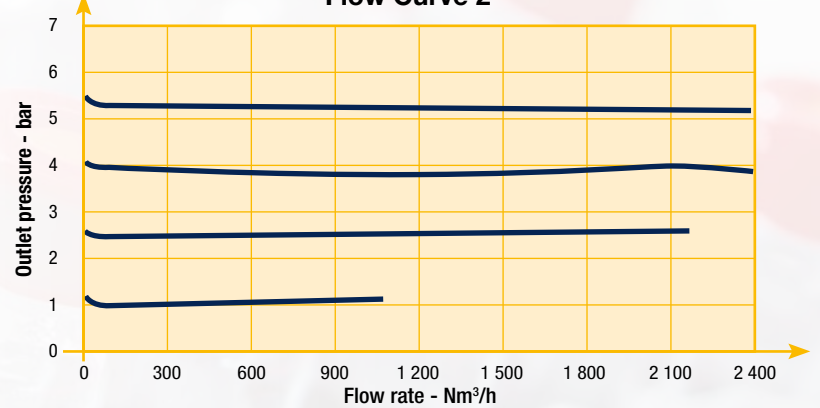
Flow Curve 1/2"



Flow Curve 1"



Flow Curve 2"



Lucifer® EPP4 Basic 1/4", 1/2", 1" & 2"

References

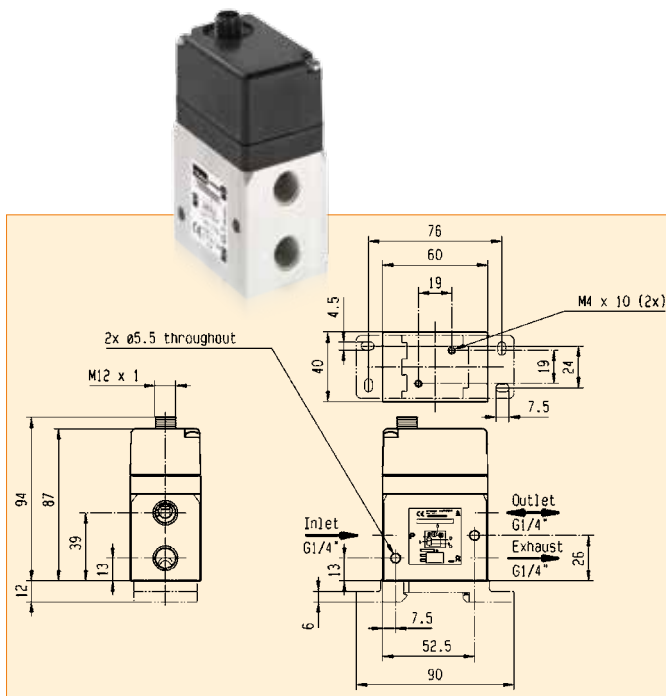
Codes	Pipe	Pressure Range (bar)		Control Signal	Drawing Number
P4BG2001A001	G 1/4"	0	4	4 - 20 mA	1
P4BG2001A002	G 1/4"	0	10	0 - 10 V	1
P4BG2001A003	G 1/4"	0	10	4 - 20 mA	1
P4BG2001A004	G 1/4"	0	6	0 - 10 V	1
P4BG2001A005	G 1/4"	0	6	4 - 20 mA	1
P4BG2001A006	G 1/4"	0	5	0 - 10 V	1
P4BG2001A007	G 1/4"	0	5	4 - 20 mA	1
P4BG2001A008	G 1/4"	0	7	0 - 10 V	1
P4BG2001A009	G 1/4"	0	7	4 - 20 mA	1
P4BG2003A002 *	G 1/4"	0	10	0 - 10 V	1
P4BG2003A003 *	G 1/4"	0	10	4 - 20 mA	1
P4BG4001A002	G 1/2"	0	10	0 - 10 V	2
P4BG4001A003	G 1/2"	0	10	4 - 20 mA	2
P4BG4001A004	G 1/2"	0	6	0 - 10 V	2
P4BG4001A005	G 1/2"	0	6	4 - 20 mA	2
P4BG4001A006	G 1/2"	0	5	0 - 10 V	2
P4BG4001A007	G 1/2"	0	5	4 - 20 mA	2
P4BG4001A008	G 1/2"	0	7	0 - 10 V	2
P4BG4001A009	G 1/2"	0	7	4 - 20 mA	2
P4BG4004A010 ***	G 1/2"	0	4	0 - 10 V	2
P4BG4051A002 **	G 1/2"	0	10	0 - 10 V	2
P4BN2001A002	NPT 1/4"	0	10	0 - 10 V	2
P4BN2001A003	NPT 1/4"	0	10	4 - 20 mA	2
P4BN4001A002	NPT 1/2"	0	10	0 - 10 V	2
P4BN4001A003	NPT 1/2"	0	10	4 - 20 mA	2
P4BG6101A002	G 1"	0	10	0 - 10 V	3
P4BG6101A003	G 1"	0	10	4 - 20 mA	3
P4BG9101A002	G 2"	0	10	0 - 10 V	4
P4BG9101A003	G 2"	0	10	4 - 20 mA	4

* Integrated pilot exhaust

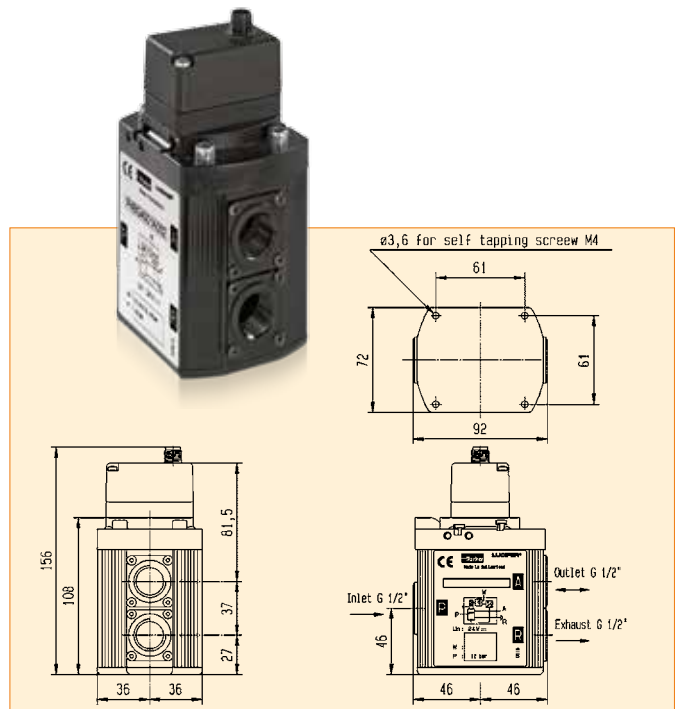
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*** External pressure supply

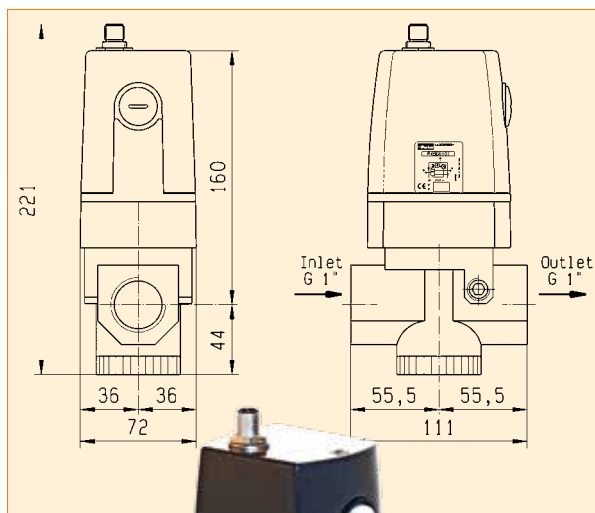




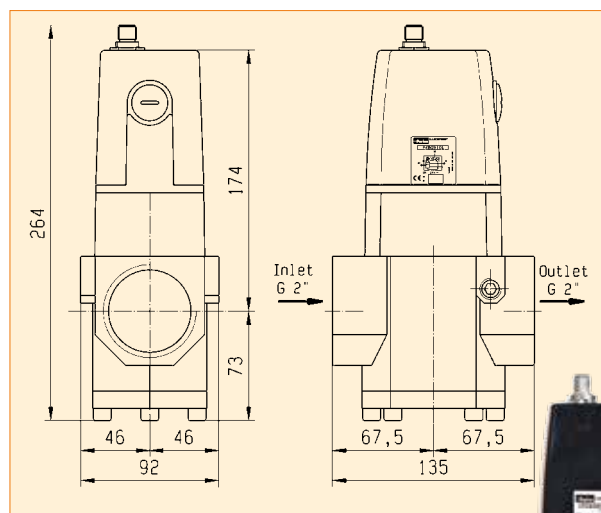
Drawing 1



Drawing 2



Drawing 3



Drawing 4



Lucifer® EPP4 Comfort

1/4" & 1/2"

Technical Data

Basic	1/4" 1/2"
Comfort	1/4" 1/2"
Comfort	1/2" HP 1" 2"
Comfort ATEX	1/2" 1" 2"

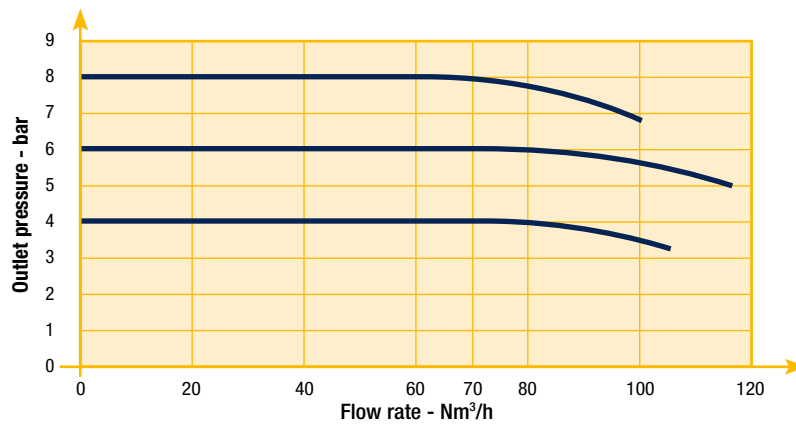
	Comfort 1/4"	Comfort 1/2"
Fluids:	Lubricated or non lubricated air and neutral gases - Recommended filtration: 50 µm	
Temperature range:	Ambient: 0°C to +50 °C Fluid: 0°C to +50 °C	
Inlet pressure range: The inlet pressure must always be at least 1 bar above the regulated pressure.	1 to 12 bar	
Outlet pressure range:	0.05 to 10 bar	
Hysteresis:	± 50 mbar (factory set up)	
Air consumption at constant control signal:	0	
Supply voltage:	24 V DC ± 15 % (Max. ripple 1 V)	
Power consumption:	Max. 2.8 W with 24 V DC and constant changes of the control signal < 1.5 W without change of control signal	
Control signal:	Analog 0 - 10 V Analog 4 - 20 mA	
Outlet sensor signal:	Analog 0 - 10 V Standard for 0 - 10 bar; Adjustable Analog 4 - 20 mA Standard for 0 - 10 bar; Adjustable	Digital 0/24 V for alarm features: Adjustable pressure error (+/-) Adjustable delay ON Adjustable delay OFF Adjustable logic (+/-)
Max. flow:	70 m³/h	150 m³/h
Indicative response time: Filling 2 to 4 bar : Filling 2 to 8 bar: Emptying 4 to 2 bar: Emptying 8 to 2 bar:	With a volume of 330 cm³ at the outlet of the regulator 50 ms 100 ms 70 ms 130 ms	60 ms 120 ms 90 ms 190 ms
Safety position:	In case of control signal failure or if it is less than 50 mV, the regulated pressure drops automatically to 0 bar (atmospheric pressure). In case of voltage supply failure, the regulated pressure will be kept constant.	
Electrical connection:	M12 - 8 pin; male connector power supply/control signal M12 - 5 pin; male connector communication	
Life expectancy:	> 50 Million changes of control signal steps	
Mounting position:	Indifferent (recommended position: upright; electronic part on top)	
Resistance to vibrations:	30 g in all directions	
Degree of protection:	IP 65	
Assembly:	Silicone free	
Electromagnetic compatibility: In accordance with:	EN 61000-6-1: 2001 EN 61000-6-2: 2001 EN 61000-6-3: 2001 + A11 2004 edition (01/07/07) EN 61000-6-4: 2001	
Installation and setting instructions:	See our "Notice 408128, 408134" and appendix supplied with the product.	

Note: Parker reserves the right to change specifications without notification.

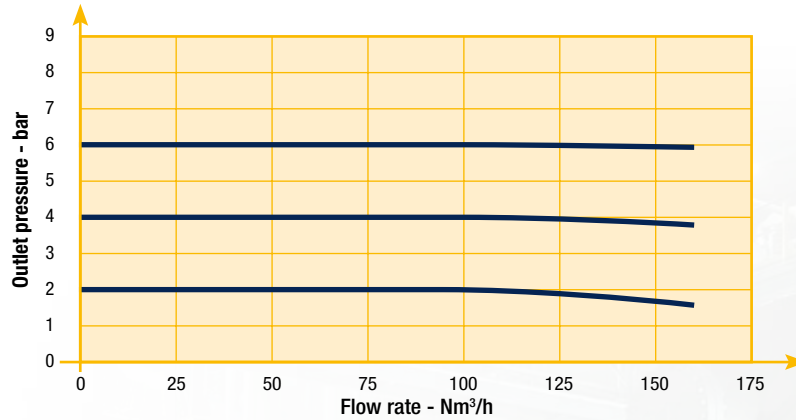
Flow Curves



Flow Curve 1/4"



Flow Curve 1/2"



Lucifer® EPP4 Comfort 1/4" & 1/2"

References

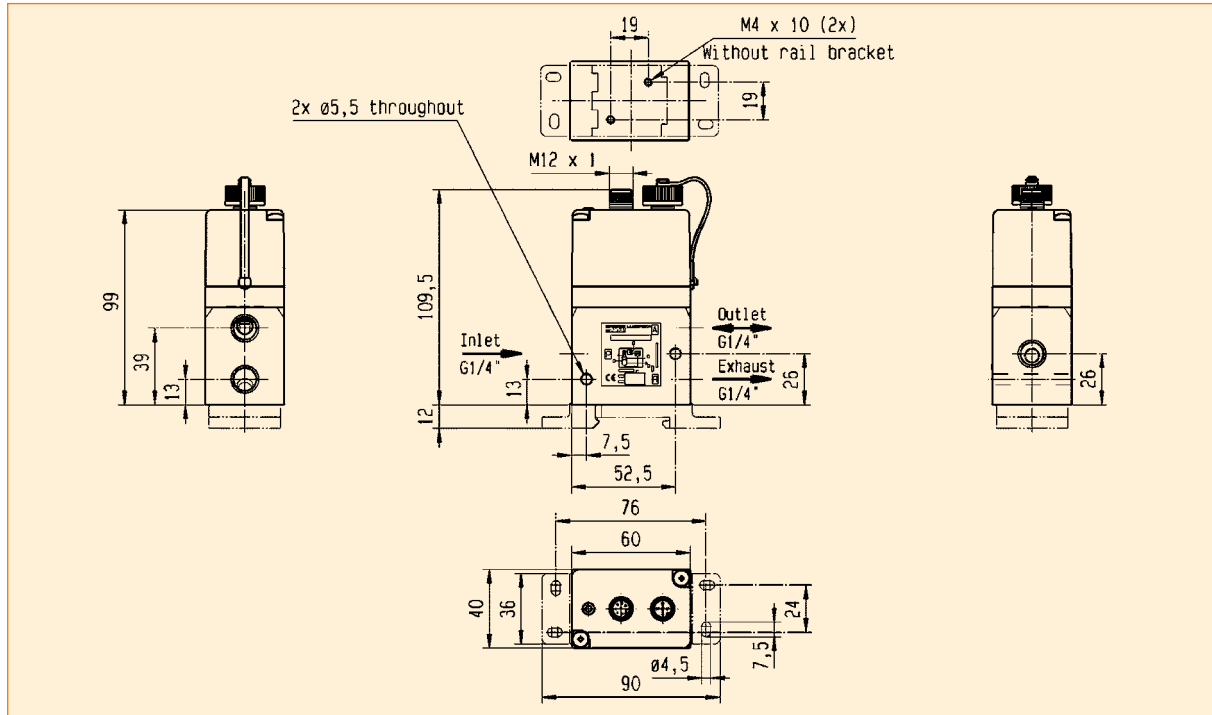
Codes	Pipe	Pressure Range (bar)		Control Signal	Drawing Number
P4CG2001C001	G 1/4	0	10	0-10 V	5
P4CG2001C002	G 1/4	0	10	4-20 mA	5
P4CG2001C005	G 1/4	0	7	0-10 V	5
P4CG2001C006	G 1/4	0	7	4-20 mA	5
P4CG2003C001 *	G 1/4	0	10	0-10 V	5
P4CG2003C002 *	G 1/4	0	10	4-20 mA	5
P4CN2001C001	1/4 NPT	0	10	0-10 V	5
P4CN2001C002	1/4 NPT	0	10	4-20 mA	5
P4CG4001C001	G 1/2	0	10	0-10 V	6
P4CG4001C002	G 1/2	0	10	4-20 mA	6
P4CG4001C005	G 1/2	0	7	0-10 V	6
P4CG4001C006	G 1/2	0	7	4-20 mA	6
P4CG4051C001 **	G 1/2	0	10	0-10 V	6
P4CG4051C002 **	G 1/2	0	10	4-20 mA	6
P4CN4001C001	1/2 NPT	0	10	0-10 V	6
P4CN4001C002	1/2 NPT	0	10	4-20 mA	6

* Integrated pilot exhaust

** O2

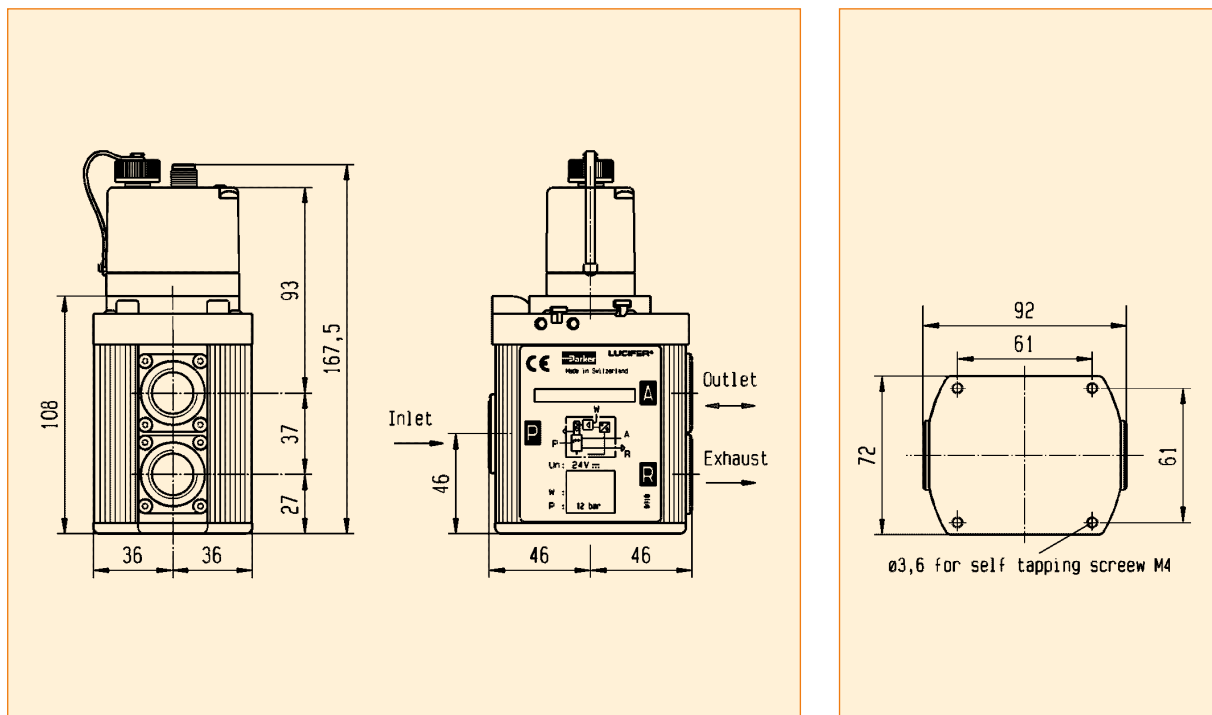


Dimensions Drawings EPP4 Comfort Range 1/4"



Drawing 5

Dimensions Drawings EPP4 Comfort Range 1/2"



Drawing 6

Lucifer® EPP4 Comfort

1/2"HP, 1" & 2"

Technical Data

Basic	1/4" 1/2"
Comfort	1/4" 1/2"
Comfort	1/2" HP 1" 2"
Comfort ATEX	1/2" 1" 2"

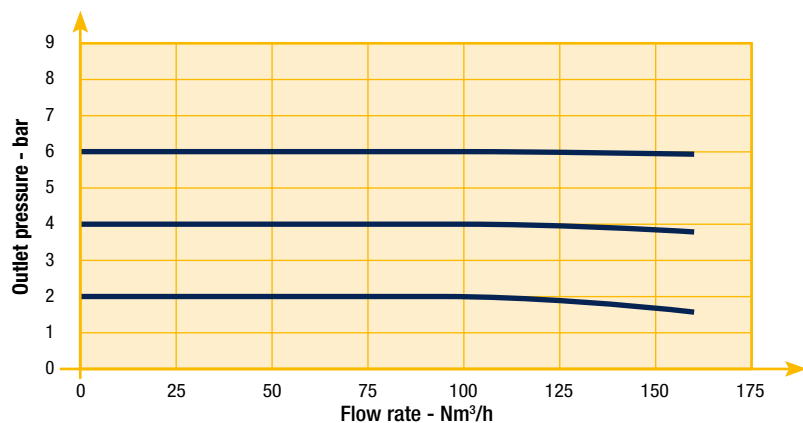
	Comfort 1/2" HP	Comfort 1"	Comfort 2"
Fluids:	Lubricated or non lubricated air and neutral gases - Recommended filtration: 50 µm		
Temperature range:	Ambient: 0°C to +50°C Fluid: 0°C to +50°C		
Inlet pressure range: The inlet pressure must always be at least 1 bar above the regulated pressure.	1 to 21 bar	1 to 21 bar	1 to 12 bar
Outlet pressure range:	0.05 to 20 bar	0.05 to 20 bar	0.05 to 10 bar
Hysteresis:	≤ 100 mbar if P inlet ≤ 10 bar ≤ 200 mbar if P inlet > 10 bar		
Air consumption at constant control signal:	0		
Supply voltage:	24V DC ± 15%		
Power consumption:	Max. 6 W with 24 V DC and constant changes of the control signal < 2 W without change of control signal		
Control signal:	Analog 0 - 10 V Analog 4 - 20 mA		
Outlet sensor signal:	Analog 0 - 10 V Standard for 0 - 10 bar; Adjustable Analog 4 - 20 mA Standard for 0 - 10 bar; Adjustable Digital 0/24 V for alarm features: Adjustable pressure error (+/-) Adjustable delay ON Adjustable delay OFF Adjustable logic (+/-)		
Max. flow:	150 m³/h	1 000 m³/h	2 700 m³/h
Indicative response time:	With a volume of 330 cm³ at the outlet of the regulator		
Filling 2 to 8 bar:	120 ms	250 ms	250 ms
Emptying 8 to 2 bar:	190 ms	400 ms	400 ms
Safety position:	In case of control signal failure or if it is less than 50 mV, the regulated pressure drops automatically to 0 bar atmospheric pressure (for pressure ranges from 0-10 bar, 100 mV for pressure range over 10 bar). In case of voltage supply failure, the regulated pressure will be kept constant.		
Electrical connection:	M12 - 8 pin; male connector power supply/control signal M12 - 5 pin; male connector communication		
Life expectancy:	> 20 Million changes of control signal steps		
Mounting position:	Indifferent (recommended position: upright; electronic part on top)		
Resistance to vibrations:	30 g in all directions		
Degree of protection:	IP 65		
Assembly:	Silicone free		
Electromagnetic compatibility: In accordance with:	EN 61000-6-1: 2001 EN 61000-6-2: 2001 EN 61000-6-3: 2001 + A11 2004 edition (01/07/07) EN 61000-6-4: 2001		
Installation and setting instructions:	See our "408 193" and appendix supplied with the product.		

Note: Parker reserves the right to change specifications without notification.

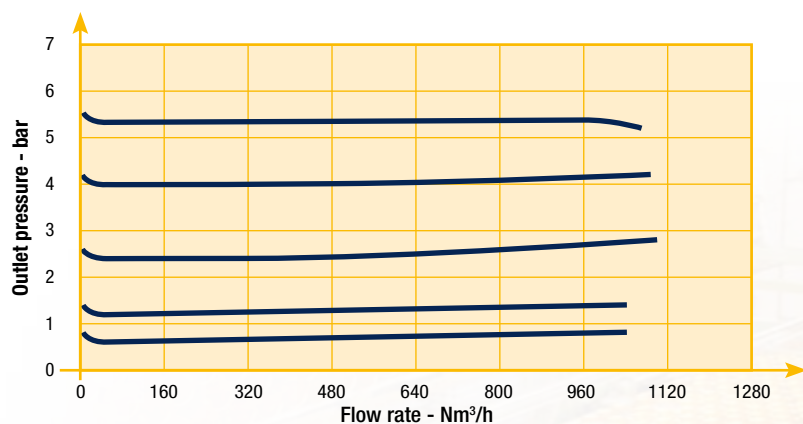
Flow Curves



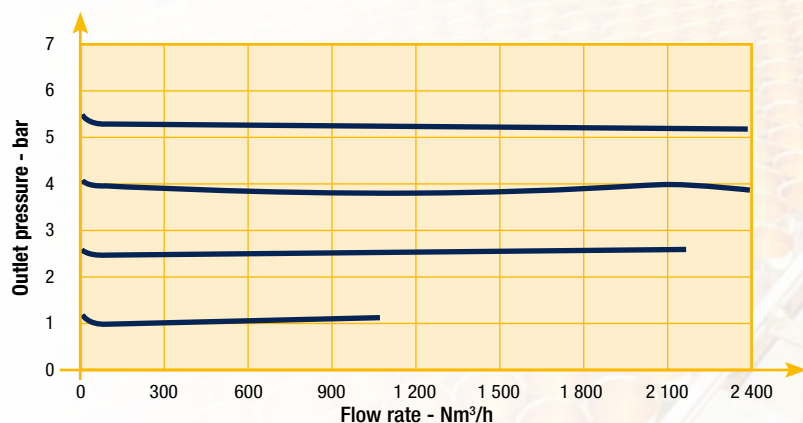
Flow Curve 1/2"HP



Flow Curve 1"



Flow Curve 2"

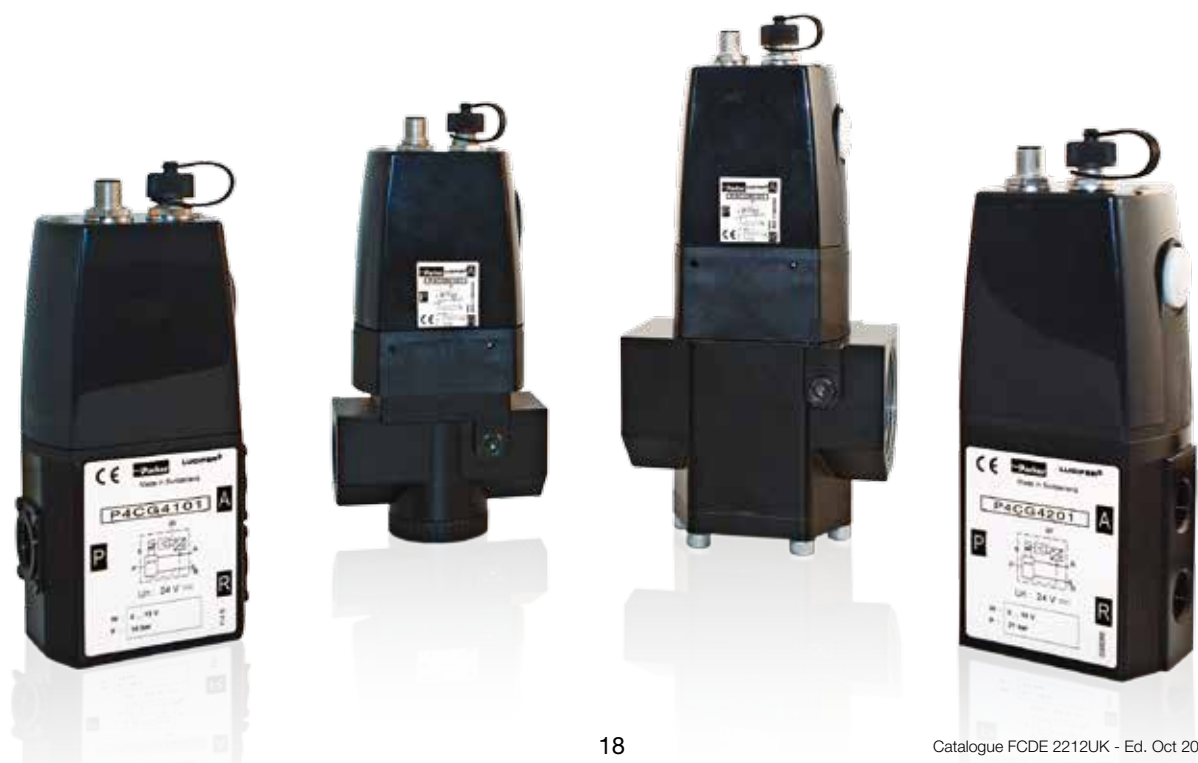


Lucifer® EPP4 Comfort 1/2"HP, 1" & 2"

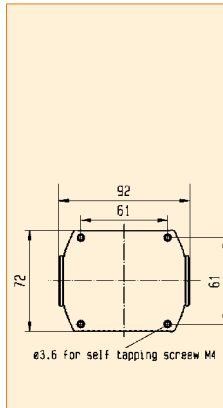
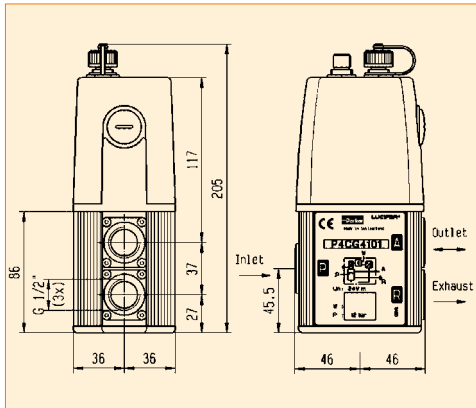
References

Codes	Pipe	Max inlet pressure (bar)	Pressure range (bar)		Control signal	Dimensional Drawing
P4CG4101D001	G1/2	15	0	12	0-10 V	7
P4CG4201D005	G1/2	21	0	16	0-10 V	8
P4CG4201D003	G1/2	21	0	20	0-10 V	8
P4CG4201D004	G1/2	21	0	20	4-20 mA	8
P4CG6101C009	G1	12	0	3.5	4-20 mA	9
P4CG6101C011	G1	12	0	5.0	0-10 V	9
P4CG6101C010	G1	12	0	6.0	4-20 mA	9
P4CG6101C001	G1	12	0	10	0-10 V	9
P4CG6101C002	G1	12	0	10	4-20 mA	9
P4CG6201D001	G1	21	0	12	0-10 V	9
P4CG6201D003	G1	21	0	20	0-10 V	9
P4CG9101C012	G2	12	0	4.0	4-20 mA	10
P4CG9101C010	G2	12	0	6.0	4-20 mA	10
P4CG9101C001	G2	12	0	10	0-10 V	10
P4CG9101C002	G2	12	0	10	4-20 mA	10

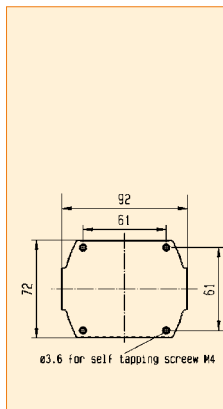
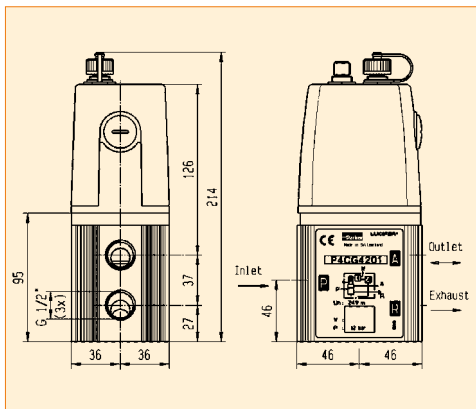
Other specific settings or specialties are available, please contact us.



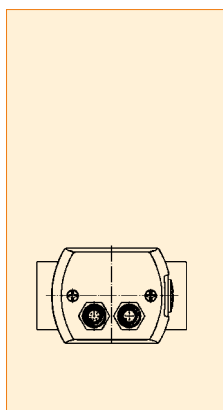
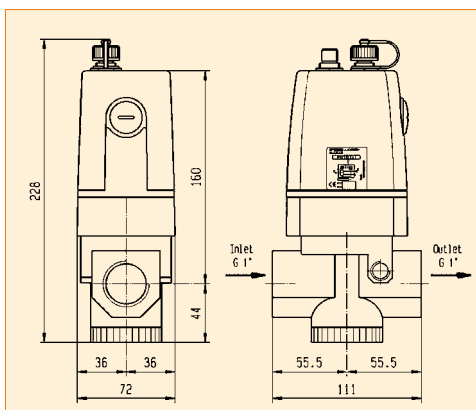
Dimensions Drawings



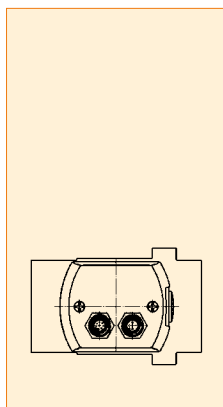
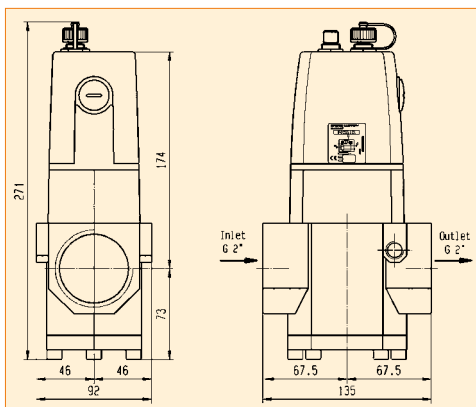
Drawing 7



Drawing 8



Drawing 9



Drawing 10



Lucifer® EPP4 Comfort 1/2", 1" & 2" ATEX



Technical Data

Basic	1/4" 1/2"
Comfort	1/4" 1/2"
Comfort	1/2" HP 1" 2"
Comfort ATEX	1/2" 1" 2"

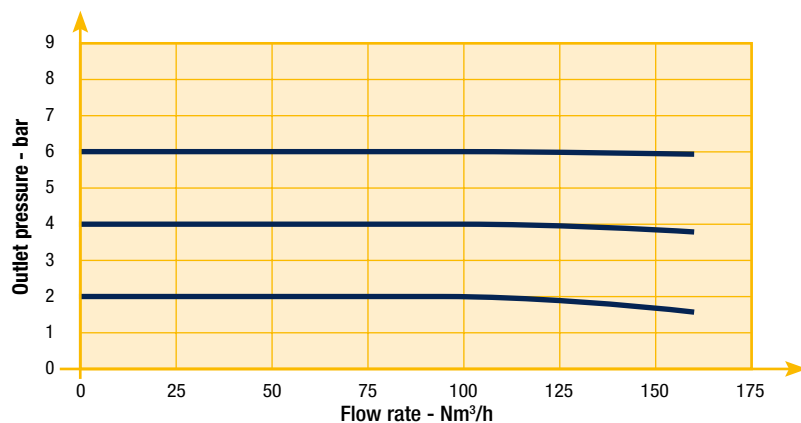
	Comfort 1/2" ATEX	Comfort 1" ATEX	Comfort 2" ATEX
Fluids:	Lubricated or non lubricated air and neutral gases - Recommended filtration: 50 µm		
Temperature range:	Ambient: 0°C to +50°C Fluid: 0°C to +50°C		
Inlet pressure range: The inlet pressure must always be at least 1 bar above the regulated pressure.	Inlet pressure range: 1 to 12 bar		
Outlet pressure range:	Outlet pressure range: 0.05 to 10 bar		
Hysteresis:	≤ 100 mbar		
Air consumption at constant control signal:	0		
ATEX certification:	Ex II 3 G/D Ex nA IIC T4 Gc Ex tc IIIB T130°C Dc		
Supply voltage:	24V DC ± 15 %		
Power consumption:	Max. 6 W with 24 V DC and constant changes of the control signal < 2 W without change of control signal		
Control signal:	Analog 0 - 10 V Analog 4 - 20 mA		
Outlet sensor signal:	Analog 0 - 10 V Standard for 0 - 10 bar; Adjustable Analog 4 - 20 mA Standard for 0 - 10 bar; Adjustable Digital 0/24 V for alarm features: Adjustable pressure error (+/-) Adjustable delay ON Adjustable delay OFF Adjustable logic (+/-)		
Max. flow:	150 m³/h	1 000 m³/h	2 700 m³/h
Indicative response time:	With a volume of 330 cm³ at the outlet of the regulator		
Filling 2 to 8 bar:	120 ms	250 ms	250 ms
Emptying 8 to 2 bar:	190 ms	400 ms	400 ms
Safety position:	In case of control signal failure or if it is less than 50 mV, the regulated pressure drops automatically to 0 bar atmospheric pressure (for pressure ranges from 0-10 bar, 100 mV for pressure range over 10 bar). In case of voltage supply failure, the regulated pressure will be kept constant.		
Electrical connection:	M12 - 8 pin; male connector power supply/control signal M12 - 5 pin; male connector communication		
Life expectancy:	> 20 Million changes of control signal steps		
Mounting position:	Indifferent (recommended position: upright; electronic part on top)		
Resistance to vibrations:	30 g in all directions		
Degree of protection:	IP 54		
Assembly:	Silicone free		
Electromagnetic compatibility: In accordance with:	EN 61000-6-1: 2001 EN 61000-6-2: 2001 EN 61000-6-3: 2001 + A11 2004 edition (01/07/07) EN 61000-6-4: 2001		
Installation and setting instructions:	See our "408 283" and appendix supplied with the product.		

Note: Parker reserves the right to change specifications without notification.

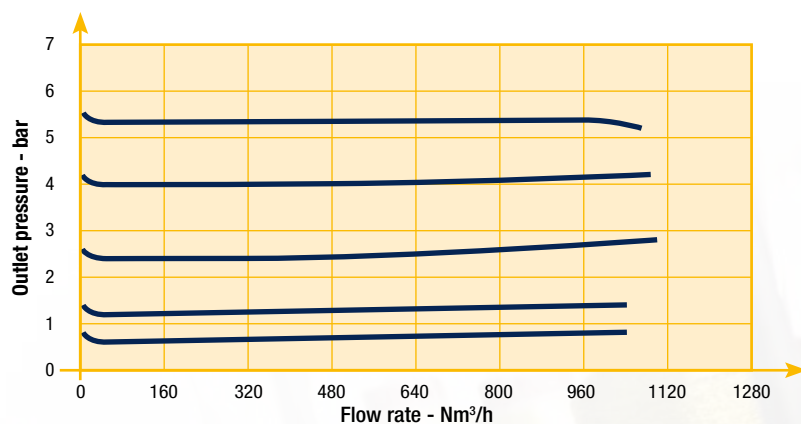
Flow Curves



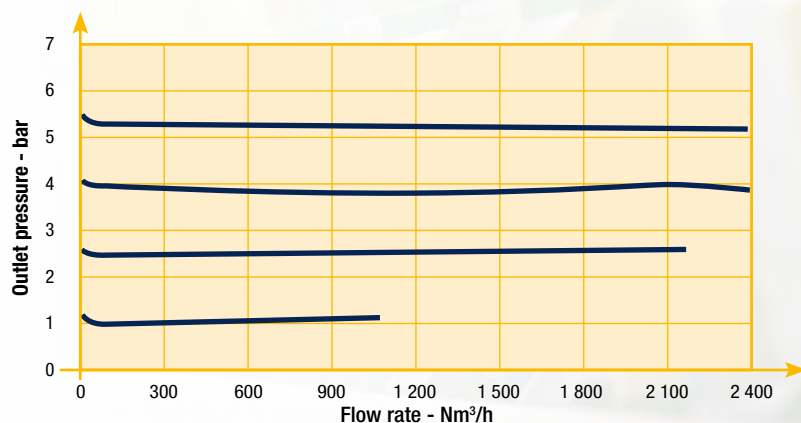
Flow Curve 1/2"



Flow Curve 1"



Flow Curve 2"



Lucifer® EPP4 Comfort 1/2", 1" & 2" ATEX



References

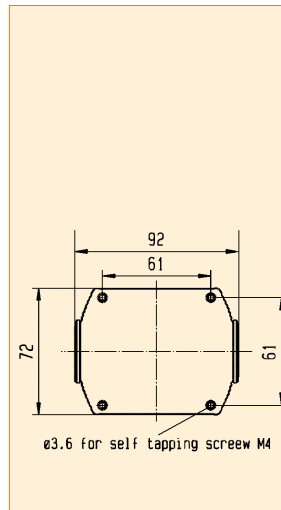
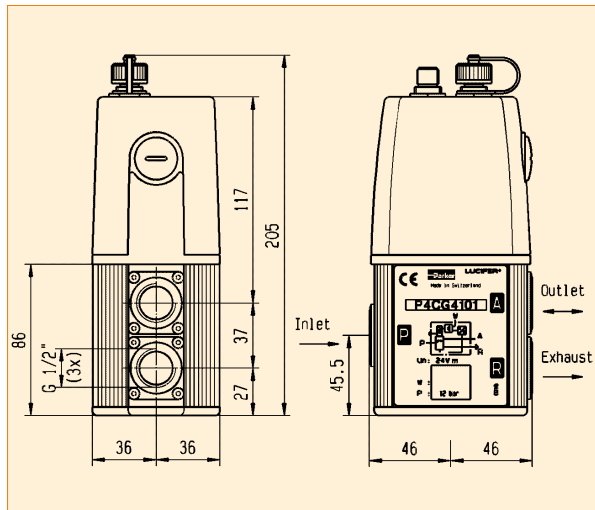
Codes	Pipe	Max inlet pressure (bar)	Pressure range (bar)		Control signal	Dimensional Drawing
P4CG4461C001	G1/2	12	0	10	0-10 V	11
P4CG4461C002	G1/2	12	0	10	4-20 mA	11
P4CG4465C001 **	G1/2	12	0	10	0-10 V	11
P4CG4465C002 **	G1/2	12	0	10	4-20 mA	11
P4CG6161C001	G1	12	0	10	0-10 V	12
P4CG6161C002	G1	12	0	10	4-20 mA	12
P4CG9161C001	G2	12	0	10	0-10 V	13
P4CG9161C002	G2	12	0	10	4-20 mA	13

** O2

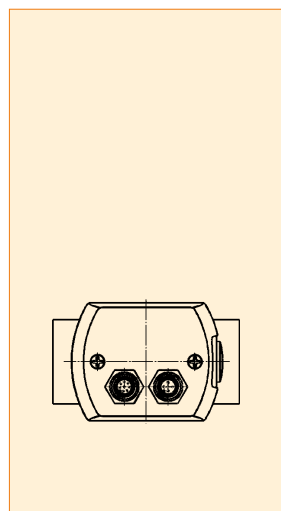
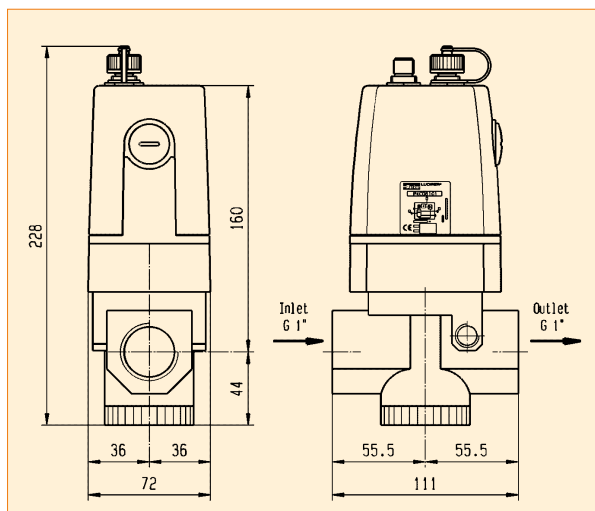
Other specific settings or specialties are available, please contact us.



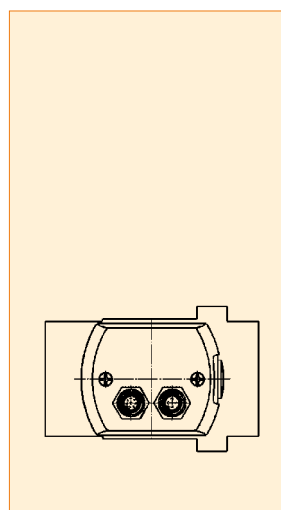
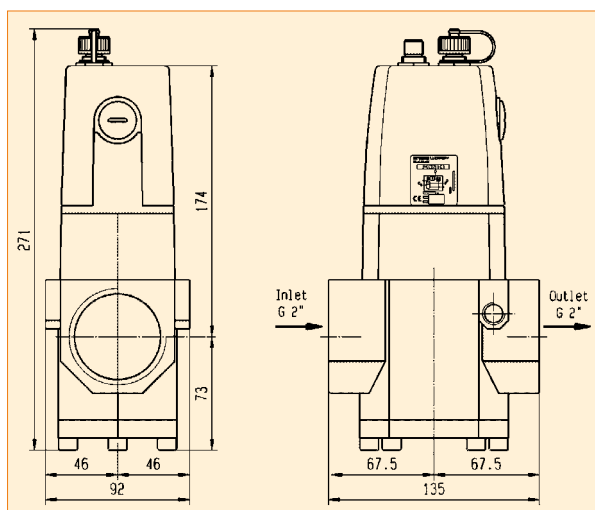
Dimensions Drawings



Drawing 11



Drawing 12



Drawing 13



Lucifer® EPP4 Accessories

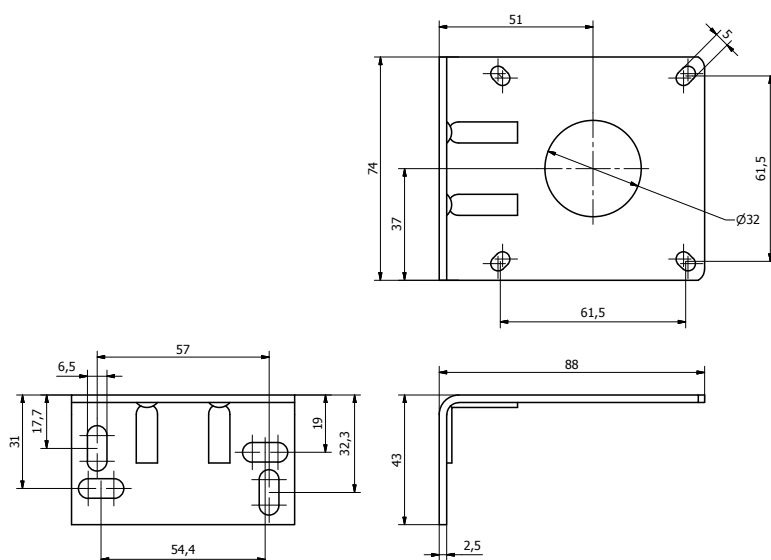
Mounting Brackets for EPP4 1/4" Basic / Comfort



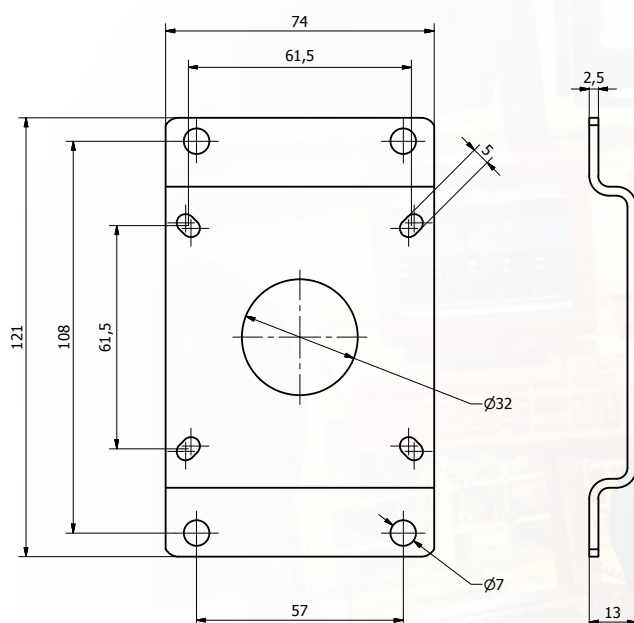
This mounting bracket is delivered as a standard with all EPP4 1/4".

Lucifer® EPP4 Accessories

Mounting Brackets for EPP4 1/2" Basic / Comfort



Order reference 491367



Order reference 491366

Lucifer® EPP4 Accessories

Power supply/control signal cable
for Basic and Comfort versions.



Cable for Basic EPP4

- 2 m cable with moulded straight M12-4 pole

Order Ref. P8L-MC04A2A-M12

Cable for Comfort EPP4

- 2 m cable with moulded straight M12-8 pole

Order Reference 496796



Lucifer® EPP4 Comfort Accessories

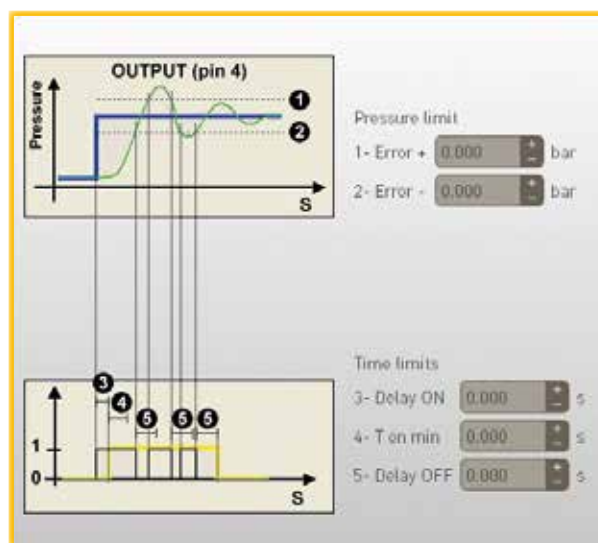
calys Software

Calys is a unique in-house developed software that easily configures all the parameters of the EPP4 Comfort range. A specific cable is needed for the communication between the EPP4 and a PC.



Calys offers many capabilities:

- Live monitoring (control signal, regulated pressure, supply voltage,...)
- Recording of the main parameters (control signal, regulated pressure, supply voltage,...) in an Excel file
- Free calibration for the inputs and outputs
- Adjustable alarm (positive-negative, pressure limits, delays)
- Configuration files easy to duplicate
- Complete and interactive help file
- Adjusting PID parameters to match any application
- Regulation based on internal or external pressure sensor can be chosen and adjusted
- Menus in 4 languages (English, German, French and Italian)



Specific communication cable PC-EPP4 with RS232 and USB connection

Order Reference 496449

This option is for safe area only.

To download free Calys software click on **www.parker.com/FCDE/Support**

**WARNING - USER RESPONSIBILITY**

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

- This document and other information from Parker-Hannifin Corporation, its subsidiaries and authorized distributors provide product or system options for further investigation by users having technical expertise.
- The user, through its own analysis and testing, is solely responsible for making the final selection of the system and components and assuring that all performance, endurance, maintenance, safety and warning requirements of the application are met. The user must analyze all aspects of the application, follow applicable industry standards, and follow the information concerning the product in the current product catalog and in any other materials provided from Parker or its subsidiaries or authorized distributors.
- To the extent that Parker or its subsidiaries or authorized distributors provide component or system options based upon data or specifications provided by the user, the user is responsible for determining that such data and specifications are suitable and sufficient for all applications and reasonably foreseeable uses of the components or systems.

Air Preparation & Airline Accessories

Global Air Preparation System



- Space saving integral gauge (P31 size only)
- Manifold style regulators available
- OSHA compliant shut-off valves
- Soft-Start & Quick Dump valves
- Electronic Proportional Regulator

For more details refer to catalogue: 0750-UK

Global Proportional Technology



- Very fast response times
- Accurate output pressure
- Micro parameter settings
- Selectable I/O parameters
- Quick, full flow exhaust
- LED display indicates output pressure
- No air consumption in steady state
- Multiple mounting options
- Protection to IP65

For more details refer to catalogue: PDE2600TCUK

P3X Lite Air Preparation System



- 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
- Membrane dryers

For more details refer to catalogue: PDE2620TCUK

Heavy Duty FRLs - P3Z Series



- Self relieving feature plus balanced poppet provides quick response and accurate pressure regulation.
- Port flanges G1¹/₂" & 2" to a 2" body.
- Proportional oil delivery over a wide range of air flows.

For more details refer to catalogue: PDE2641TCUK

P3L Lite Air Preparation System



- Compact body ported units
- Port size G1/4
- Unique deflector plate ensuring maximum water and particulate removal
- Solid control piston with lip seal for extended life.
- Proportional oil delivery over a wide range of air flows.

For more details refer to catalogue: PDE2661TCUK

Stainless Steel FRLs



- Suitable for Marine & Offshore applications
- Chemical / Petroleum and process industries
- Coalescing filters are designed for removing oil and water aerosols down to 0.01µ
- Suitable for food industry applications

For more details refer to catalogue: PDE2504TCUK

Modular FRLs - P3Y Series



- Integral 3/4 or 1" ports (BSPP or NPT)
- High efficiency element as standard
- Excellent water removal efficiency
- Secondary pressure ranges 12 and 16 bar

For more details refer to catalogue: PDE2631TCUK

Prep-Air II® Miniature FRLs



- Compact body ported units.
- Port sizes G1/8 and G1/4.
- Unique deflector plate ensuring maximum water and particulate removal.
- Solid control piston with lip seal for extended life.
- Proportional oil delivery over a wide range of air flows.

For more details refer to catalogue: PDE2591TCUK

Air Preparation & Airline Accessories

P3T Compressed Air Filters



- Tested in accordance with ISO 8573.9
- High liquid removal efficiencies at all flow conditions
- Low pressure losses for low operational costs
- Multiple port sizes for a given flow rate provides increased flexibility during installation

For more details refer to catalogue: PDE2603TCUK

Precision Pressure Regulators



- High repeatability
- High relief capacity on R220 model
- High flow capacity on R230 model

For more details refer to catalogue: PDE2542TCUK

Modular Membrane Dryers - P3X



- 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

For more details refer to catalogue: PDE2640TCUK

P3TJ Dry Air System



- Designed in accordance with ASME VIII Div.1, approved to CSA/UL/CRN and fully CE Marked (PED, EMC, LVD) as standard.
- Flexible installation utilising the multiple in-line inlet & outlet connection ports.
- Can be Floor, Bench or Wall/Canopy mounted.

For more details refer to catalogue: PDE2602TCUK

AirGuard Protection System



- Maintenance friendly, Repair possible while plant is still operating.
- Reliable and tamperproof, No adjustment necessary.
- Complies with EU current standard
- Complies with the 2009 ISO4414 (5.4.5.11.1)

For more details refer to catalogue: PDE2604TCUK

Cylinder Controls



- "Push-in" or threaded connection
- Multifunction options
- Fit directly to cylinder ports
- Swivelling pilot banjo
- Pneumatic, Electric or Electronic back pressure sensor

For more details refer to catalogue: 0093/UK

Shuttle Valve & Quick Exhaust Valves



- Increases piston speeds, super sensitive diaphragm.
- May be used as differential shuttle valve.
- Allows two separate signals to be applied to the air pilot.
- 0,6 bar differential, Viton seals as standard.
- Aluminium or polymer bodies

For more details refer to catalogue: 0093/UK

Exhaust Silencers



- All plastic ultra light weight versions
- Sintered metal
- All metal versions for heavy duty applications
- Versions with push-in connections
- High noise level reduction
- Low back pressure generation

For more details refer to catalogue: 0093/UK



Parker's Motion & Control Technologies

At Parker, we're guided by a relentless drive to help our customers become more productive and achieve higher levels of profitability by engineering the best systems for their requirements. It means looking at customer applications from many angles to find new ways to create value. Whatever the motion and control technology need, Parker has the experience, breadth of product and global reach to consistently deliver. No company knows more about motion and control technology than Parker. For further info call 00800 27 27 5374



Aerospace Key Markets

Aftermarket services
Commercial transports
Engines
General & business aviation
Helicopters
Launch vehicles
Military aircraft
Missiles
Power generation
Regional transports
Unmanned aerial vehicles

Key Products

Control systems & actuation products
Engine systems & components
Fluid conveyance systems & components
Fluid metering, delivery & atomization devices
Fuel systems & components
Fuel tank inerting systems
Hydraulic systems & components
Thermal management
Wheels & brakes



Climate Control Key Markets

Agriculture
Air conditioning
Construction Machinery
Food & beverage
Industrial machinery
Life sciences
Oil & gas
Precision cooling
Process
Refrigeration
Transportation

Key Products

Accumulators
Advanced actuators
CO₂ controls
Electronic controllers
Filter driers
Hand shut-off valves
Heat exchangers
Hose & fittings
Pressure regulating valves
Refrigerant distributors
Safety relief valves
Smart pumps
Thermostatic expansion valves



Electromechanical Key Markets

Aerospace
Factory automation
Life science & medical
Machine tools
Packaging machinery
Paper machinery
Plastics machinery & converting
Primary metals
Semiconductor & electronics
Textile
Wire & cable

Key Products

AC/DC drives & systems
Electric actuators, gantry robots & slides
Electrohydraulic actuation systems
Electromechanical actuation systems
Human machine interface
Linear motors
Stepper motors, servo motors, drives & controls
Structural extrusions



Filtration Key Markets

Aerospace
Food & beverage
Industrial plant & equipment
Life sciences
Marine
Mobile equipment
Oil & gas
Power generation & renewable energy
Process
Transportation
Water Purification

Key Products

Analytical gas generators
Compressed air filters & dryers
Engine air, coolant, fuel & oil filtration systems
Fluid condition monitoring systems
Hydraulic & lubrication filters
Hydrogen, nitrogen & zero air generators
Instrumentation filters
Membrane & fiber filters
Microfiltration
Sterile air filtration
Water desalination & purification filters & system



Fluid & Gas Handling Key Markets

Aerial lift
Agriculture
Bulk chemical handling
Construction machinery
Food & beverage
Fuel & gas delivery
Industrial machinery
Life sciences
Marine
Mining
Mobile
Oil & gas
Renewable energy
Transportation

Key Products

Check valves
Connectors for low pressure fluid conveyance
Deep sea umbilicals
Diagnostic equipment
Hose couplings
Industrial hose
Mooring systems & power cables
PTFE hose & tubing
Quick couplings
Rubber & thermoplastic hose
Solenoid valves
Tube fittings & adapters
Tubing & plastic fittings



Hydraulics Key Markets

Aerial lift
Agriculture
Alternative energy
Construction machinery
Forestry
Industrial machinery
Machine tools
Marine
Material handling
Mining
Oil & gas
Power generation
Refuse vehicles
Renewable energy
Truck hydraulics
Turf equipment

Key Products

Accumulators
Cartridge valves
Electrohydraulic actuators
Human machine interfaces
Hybrid drives
Hydraulic cylinders
Hydraulic motors & pumps
Hydraulic systems
Hydraulic valves & controls
Hydrostatic steering
Integrated hydraulic circuits
Power take-offs
Power units
Rotary actuators
Sensors



Pneumatics Key Markets

Aerospace
Conveyor & material handling
Factory automation
Life science & medical
Machine tools
Packaging machinery
Transportation & automotive

Key Products

Air preparation
Brass fittings & valves
Manifolds
Pneumatic accessories
Pneumatic actuators & grippers
Pneumatic valves & controls
Quick disconnects
Rotary actuators
Rubber & thermoplastic hose & couplings
Structural extrusions
Thermoplastic tubing & fittings
Vacuum generators, cups & sensors



Process Control Key Markets

Alternative fuels
Biopharmaceuticals
Chemical & refining
Food & beverage
Marine & shipbuilding
Medical & dental
Microelectronics
Nuclear Power
Offshore oil exploration
Oil & gas
Pharmaceuticals
Power generation
Pulp & paper
Steel
Water/wastewater

Key Products

Analytical Instruments
Analytical sample conditioning products & systems
Chemical injection fittings & valves
Fluoropolymer chemical delivery fittings, valves & pumps
High purity gas delivery fittings, valves, regulators & digital flow controllers
Industrial mass flow meters/ controllers
Permanent no-weld tube fittings
Precision industrial regulators & flow controllers
Process control double block & bleeds
Process control fittings, valves, regulators & manifold valves



Sealing & Shielding Key Markets

Aerospace
Chemical processing
Consumer
Fluid power
General industrial
Information technology
Life sciences
Microelectronics
Military
Oil & gas
Power generation
Renewable energy
Telecommunications
Transportation

Key Products

Dynamic seals
Elastomeric o-rings
Electro-medical instrument design & assembly
EMI shielding
Extruded & precision-cut, fabricated elastomeric seals
High temperature metal seals
Homogeneous & inserted elastomeric shapes
Medical device fabrication & assembly
Metal & plastic retained composite seals
Shielded optical windows
Silicone tubing & extrusions
Thermal management
Vibration dampening

ENGINEERING YOUR SUCCESS.