



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

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



Lucifer® EPP4 Proportional Pressure Regulator Range



ENGINEERING YOUR SUCCESS.

Lucifer® EPP4 Programmable 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
- Flexible remote display positioning
- Proven expertise of Parker, a pioneer in pressure regulation technology



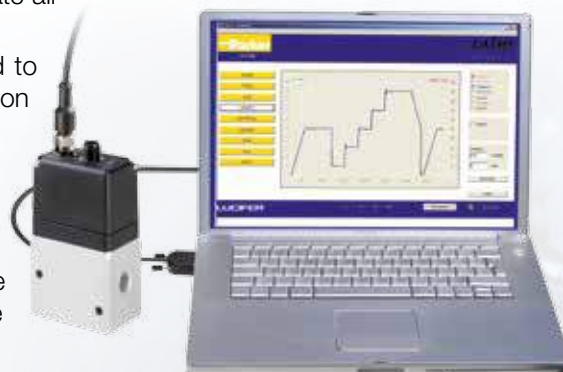
calys Software - for EPP Comfort

Calys is a unique software in house developed to configurate all the parameters of the EPP4 Comfort range.

Calys is an option of the EPP4. To use CALYS, you need to order cable reference 496449 wich permits the communication between the EPP4 and a PC.

Calys offers many capabilities:

- It enables distributors to reduce inventory by keeping a generic EPP4 in stock and adjust it to the needs of each customer application. They can switch for example from 0-10 V to 4-20 mA, or from 0-7 bar pressure range to 0-5 bar.
- Engineers designing a pneumatic system are able to monitor precisely all the important values (electrical or pneumatical) directly on their laptop.
- After sales technicians are able to receive via email all the parameters measured by the EPP4 installed on a machine wherever its location allowing remote maintenance operation.
- PID regulation parameters can be adjusted with Calys to match required regulator response (like slow or reactive).



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



Summary

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EPP4 Comfort Range page 12



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EPP4 Comfort Range ATEX page 20



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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

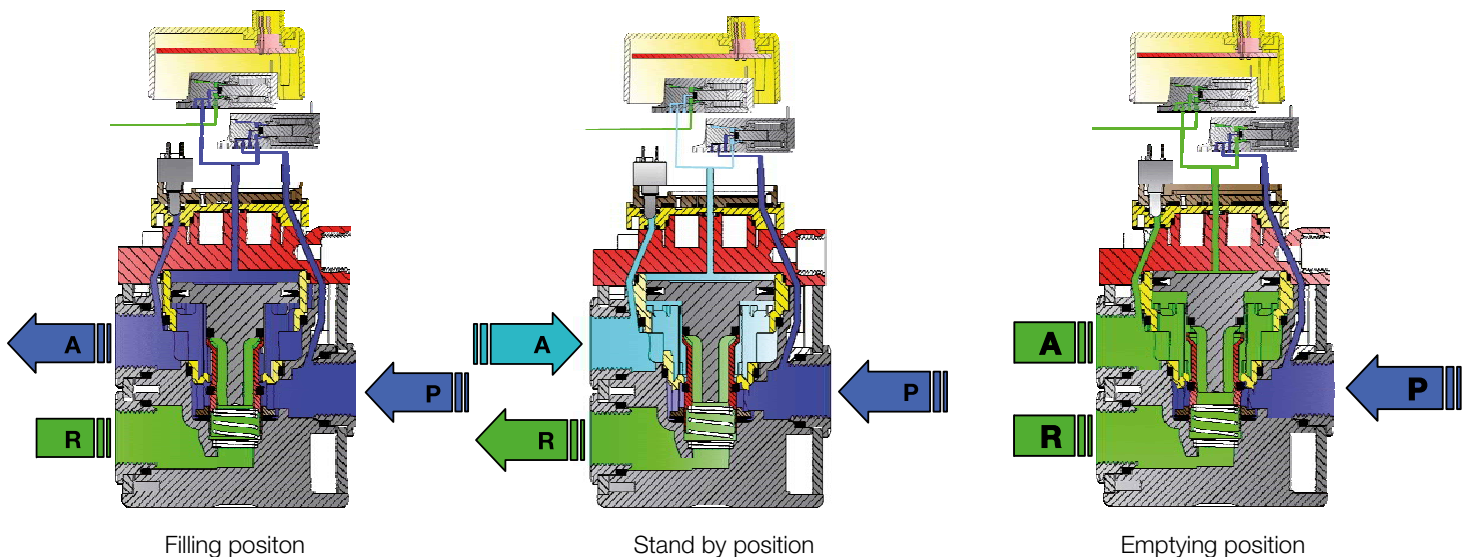
regulator; when energised this valve will fill the servo-chamber for increasing the pressure at the outlet A of the regulator.

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.





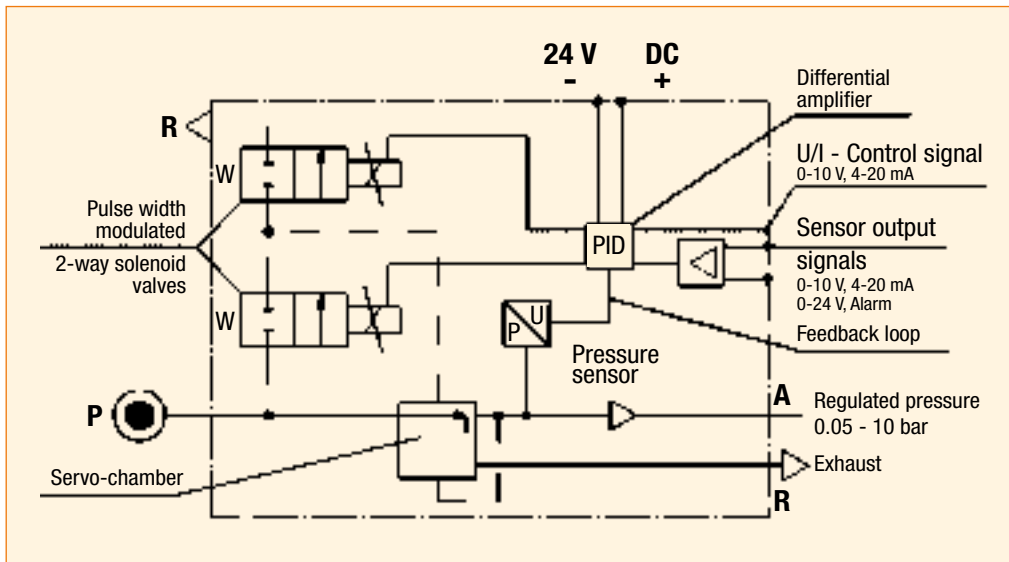
Block Diagram

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.

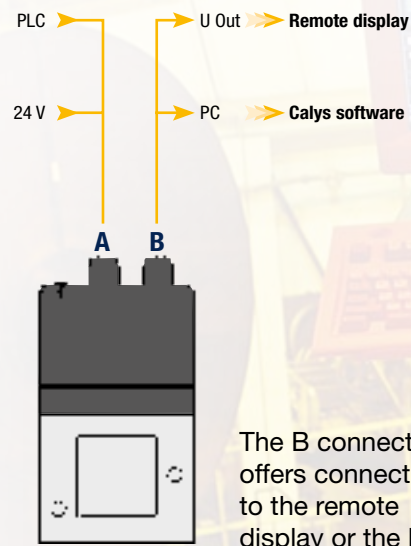
The digital signal (alarm) is activated when the conditions (out of pressure or time tolerance) are met.



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 remote display showing the current regulated pressure, or a PC to easily set the regulation's parameters. These are the key feature options for a comfortable use.



Lucifer® EPP4 Basic

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

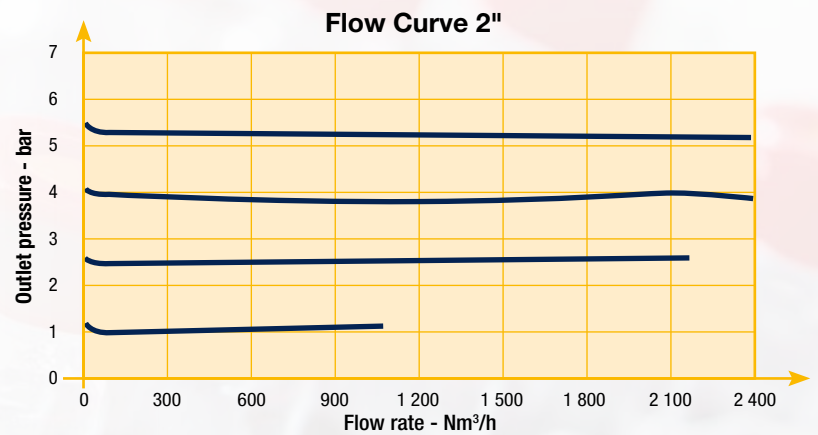
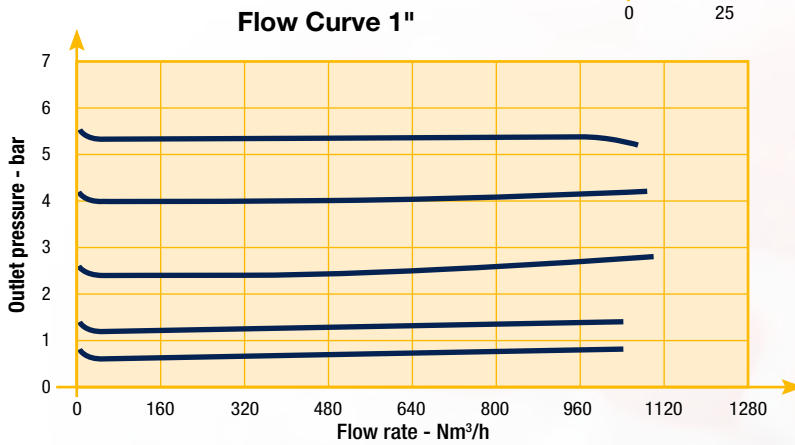
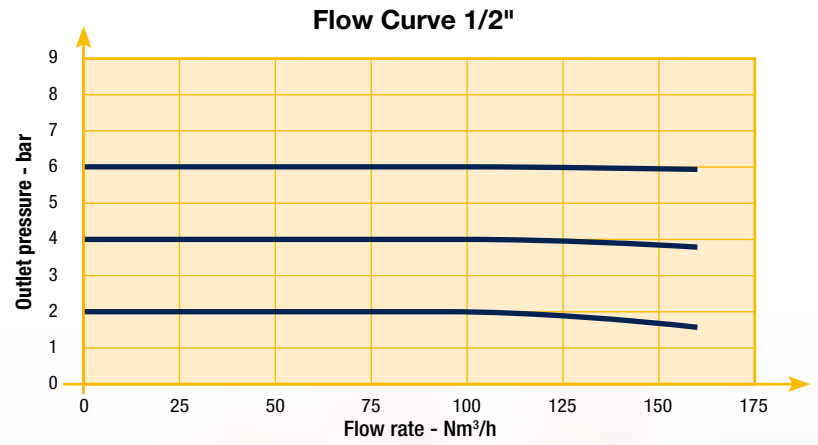
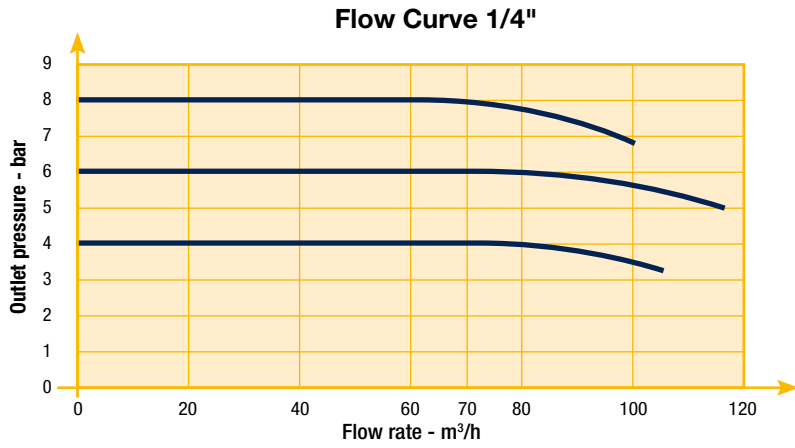
Technical Data

| | |
|---------------------|--------------------|
| 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) | | | |
| 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



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

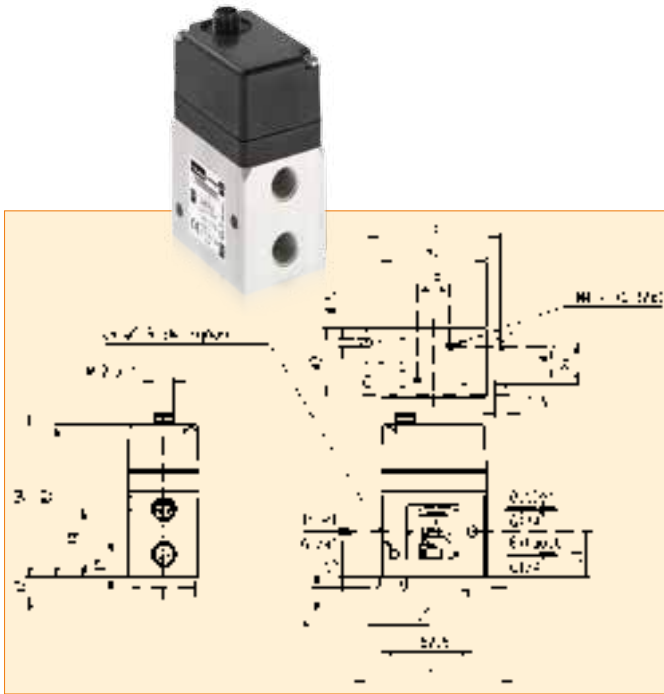
References

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

- * Integrated pilot exhaust
- ** O₂
- *** External pressure supply

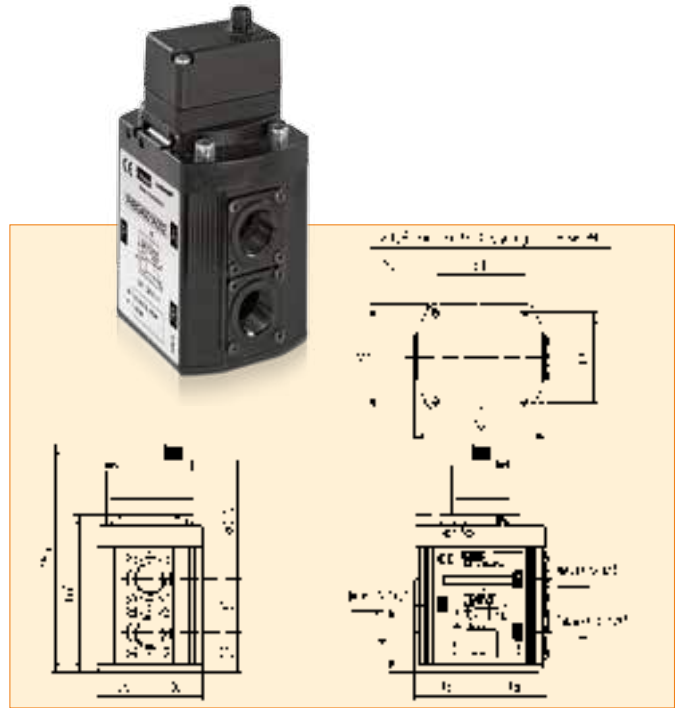


Dimensions EPP4 1/4"



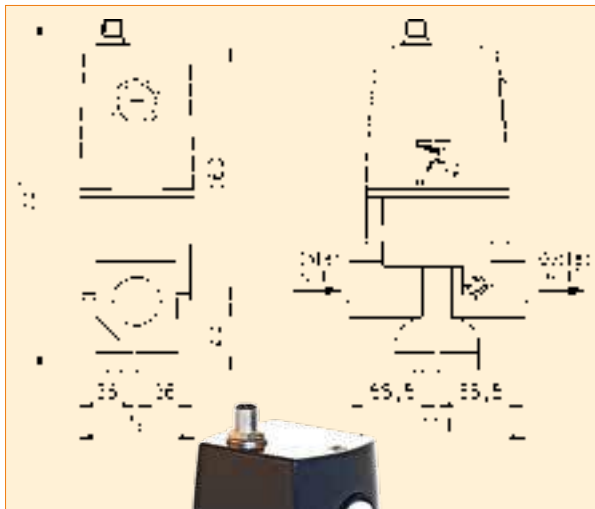
Drawing 1

Dimensions EPP4 1/2"



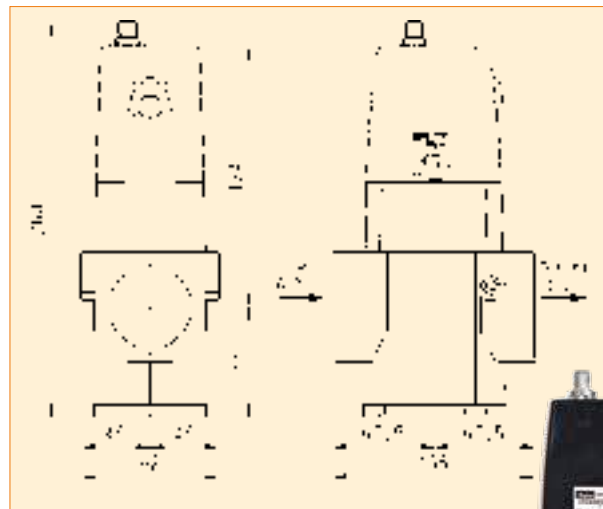
Drawing 2

Dimensions EPP4 1"



Drawing 3

Dimensions EPP4 2"



Drawing 4

Lucifer® EPP4 Comfort 1/4" & 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" |

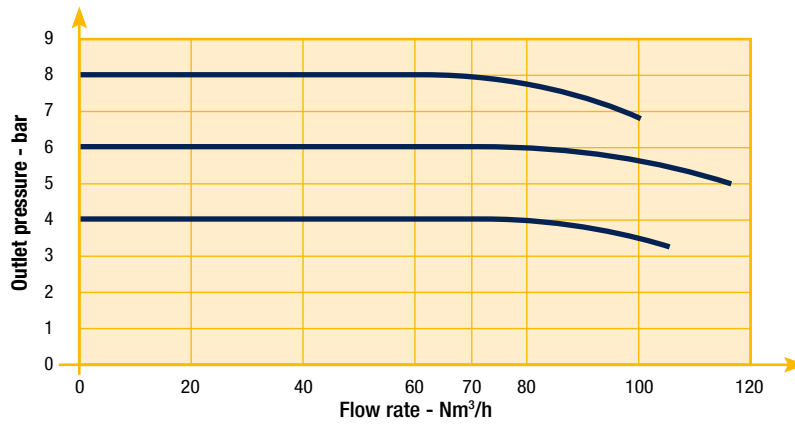
| | Comfort 1/4" | Comfort 1/2" |
|---|--|--|
| Fluids: | Lubricated or non lubricated air and neutral gases - Recommended filtration: 50 µm | |
| Temperature range: | Ambient: 0°C to +50 °C Fluid: 0°C to +50 °C | |
| Inlet pressure range: The inlet pressure must always be at least 1 bar above the regulated pressure. | 1 to 12 bar | 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.

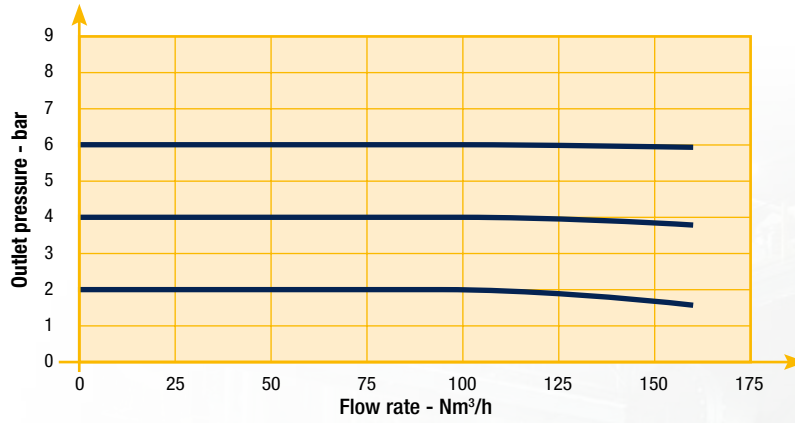
Flow Curves



Flow Curve 1/4"



Flow Curve 1/2"



Lucifer® EPP4 Comfort 1/4" & 1/2"

References

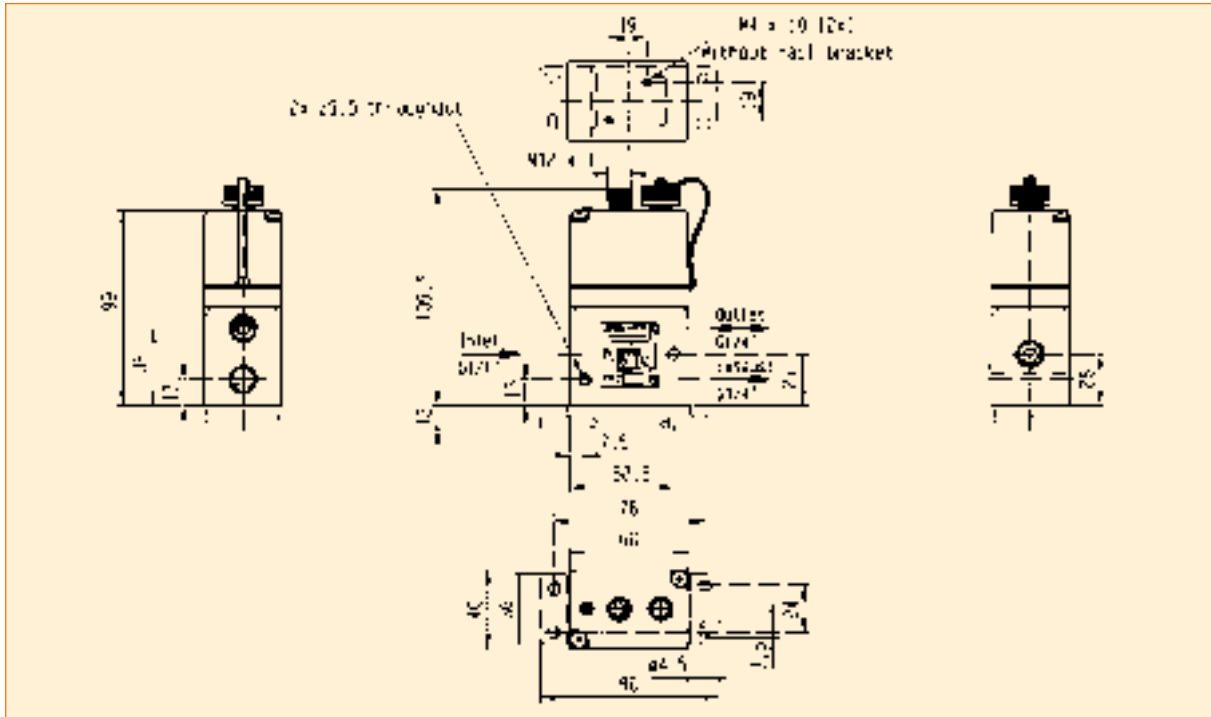
| Codes | Pipe | Pressure Range (bar) | | Control Signal | Display | Drawing Number |
|-----------------|---------|----------------------|----|----------------|----------|----------------|
| P4CG2001C001 | G 1/4 | 0 | 10 | 0-10 V | - | 5 |
| P4CG2001C002 | G 1/4 | 0 | 10 | 4-20 mA | - | 5 |
| P4CG2001C005 | G 1/4 | 0 | 7 | 0-10 V | - | 5 |
| P4CG2001C006 | G 1/4 | 0 | 7 | 4-20 mA | - | 5 |
| P4CG2002C001 | G 1/4 | 0 | 10 | 0-10 V | included | 5 |
| P4CG2002C002 | G 1/4 | 0 | 10 | 4-20 mA | included | 5 |
| P4CG2003C001 * | G 1/4 | 0 | 10 | 0-10 V | - | 5 |
| P4CG2003C002 * | G 1/4 | 0 | 10 | 4-20 mA | - | 5 |
| P4CG2002C007 | G 1/4 | 0 | 7 | 0-10 V | included | 5 |
| P4CG2002C008 | G 1/4 | 0 | 7 | 4-20 mA | included | 5 |
| P4CN2001C001 | 1/4 NPT | 0 | 10 | 0-10 V | - | 5 |
| P4CN2001C002 | 1/4 NPT | 0 | 10 | 4-20 mA | - | 5 |
| P4CN2002C001 | 1/4 NPT | 0 | 10 | 0-10 V | included | 5 |
| P4CN2002C002 | 1/4 NPT | 0 | 10 | 4-20 mA | included | 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 |
| P4CG4002C001 | G 1/2 | 0 | 10 | 0-10 V | included | 6 |
| P4CG4002C002 | G 1/2 | 0 | 10 | 4-20 mA | included | 6 |
| P4CG4002C005 | G 1/2 | 0 | 7 | 0-10 V | included | 6 |
| P4CG4002C006 | G 1/2 | 0 | 7 | 4-20 mA | included | 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 |
| P4CN4002C001 | 1/2 NPT | 0 | 10 | 0-10 V | included | 6 |
| P4CN4002C002 | 1/2 NPT | 0 | 10 | 4-20 mA | included | 6 |

* Integrated pilot exhaust

** O2

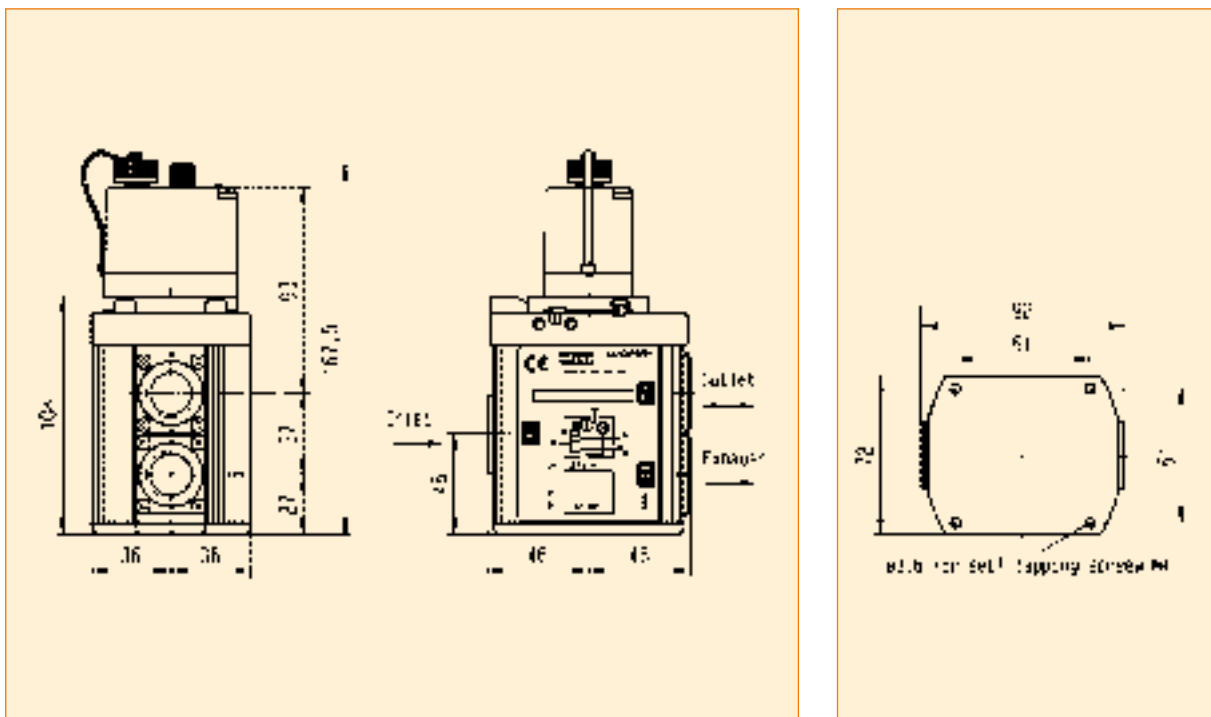


Dimensions Drawings EPP4 Comfort Range 1/4"



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" |

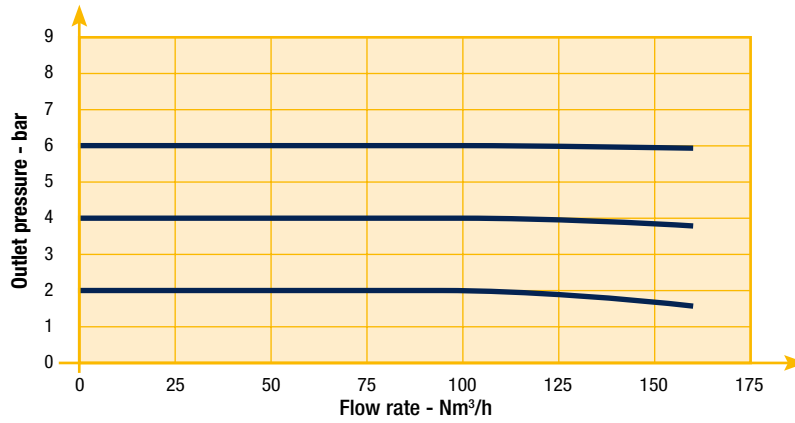
| | Comfort 1/2" HP | Comfort 1" | Comfort 2" |
|--|---|--|----------------|
| Fluids: | Lubricated or non lubricated air and neutral gases - Recommended filtration: 50 µm | | |
| Temperature range: | Ambient: 0°C to +50°C Fluid: 0°C to +50°C | | |
| Inlet pressure range: The inlet pressure must always 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.

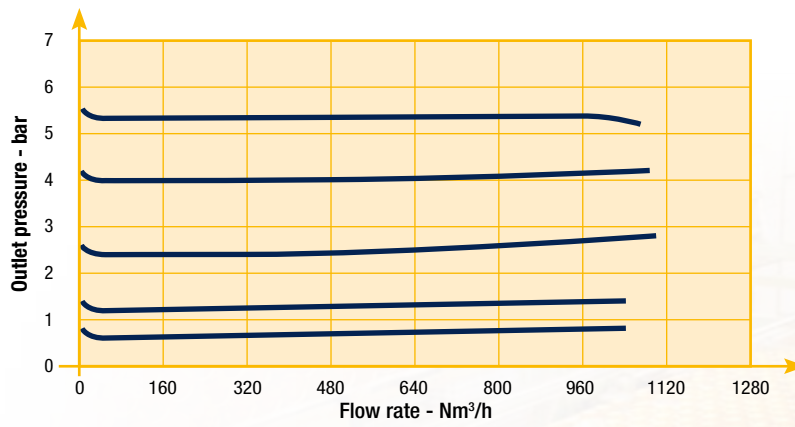
Flow Curves



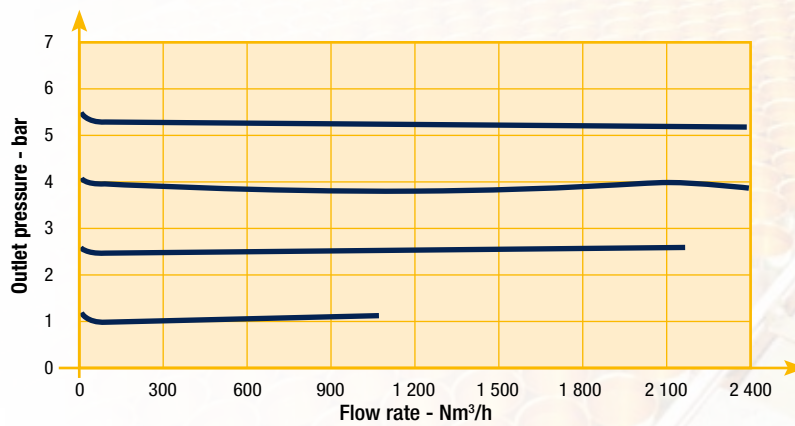
Flow Curve 1/2"HP



Flow Curve 1"



Flow Curve 2"

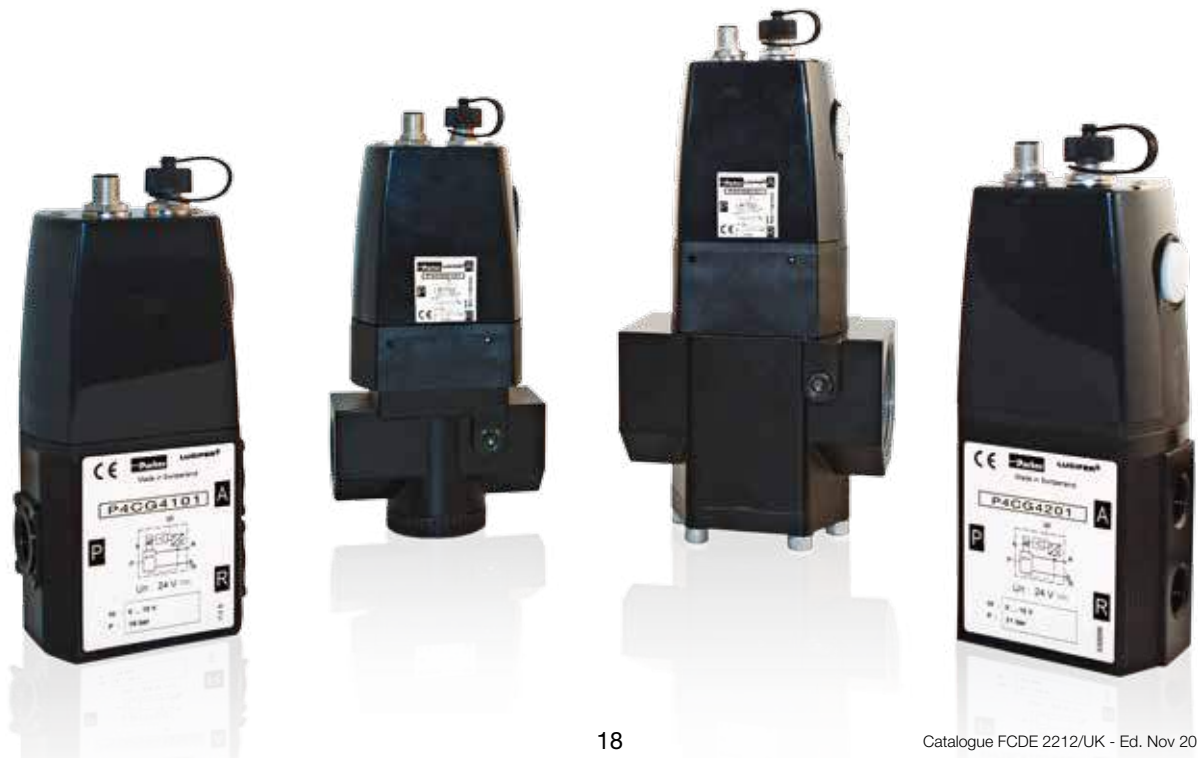


Lucifer® EPP4 Comfort 1/2"HP, 1" & 2"

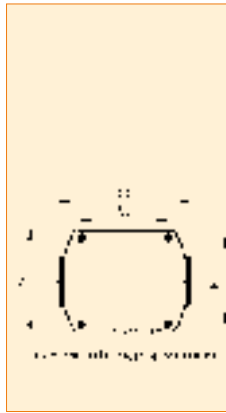
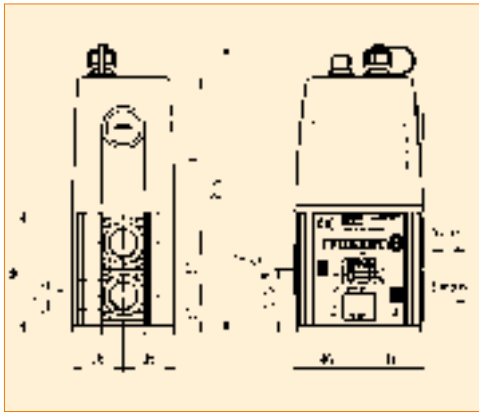
References

| 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 |

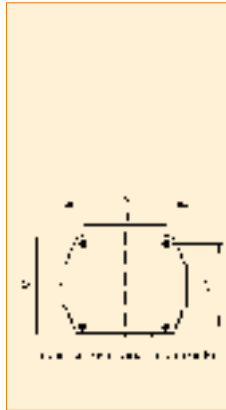
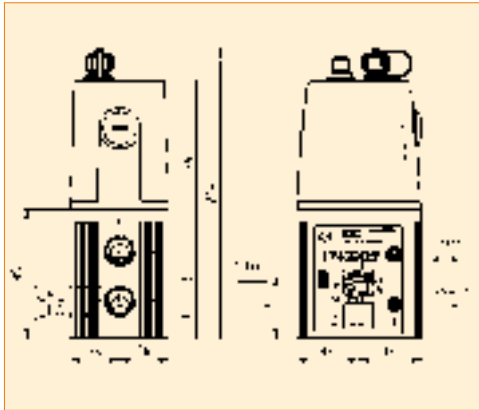
Other specific settings or specialties are available, please contact us.



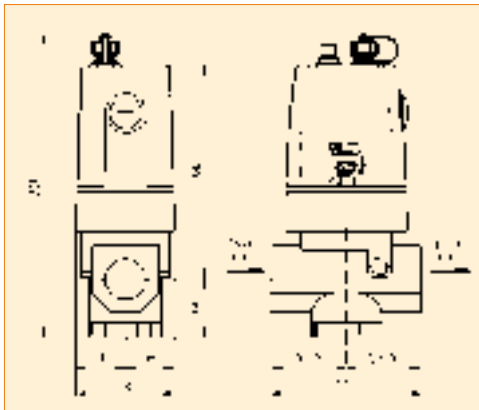
Dimensions Drawings



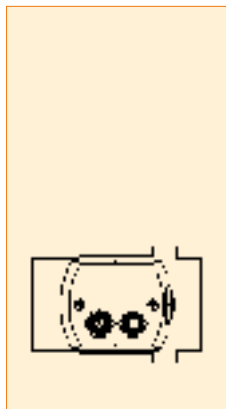
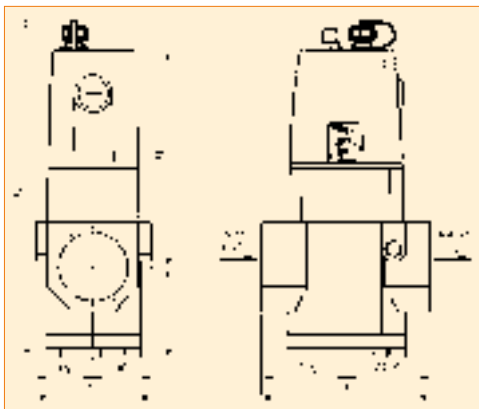
Drawing 7



Drawing 8



Drawing 9



Drawing 10



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



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

Technical Data

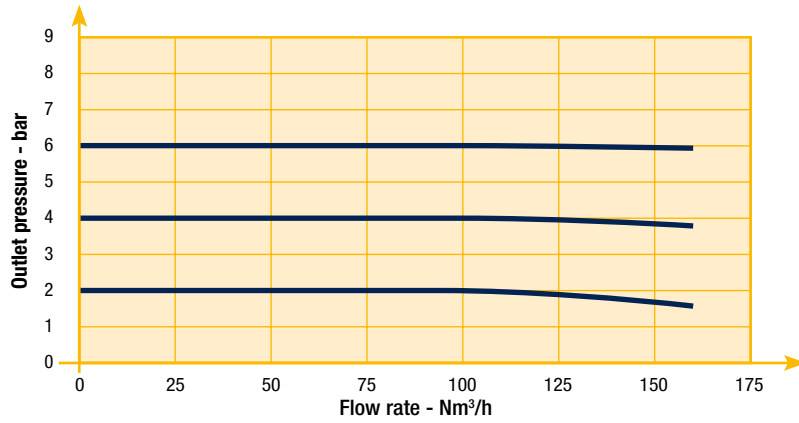
| | Comfort 1/2" ATEX | Comfort 1" ATEX | Comfort 2" ATEX |
|--|---|--|--------------------|
| Fluids: | Lubricated or non lubricated air and neutral gases - Recommended filtration: 50 µm | | |
| Temperature range: | Ambient: 0°C to +50°C Fluid: 0°C to +50°C | | |
| Inlet pressure range: The inlet pressure 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 | Digital 0/24 V for alarm features: Adjustable pressure error (+/-) Adjustable delay ON Adjustable delay OFF Adjustable logic (+/-) | |
| | Analog 4 - 20 mA Standard for 0 - 10 bar; Adjustable | | |
| 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.

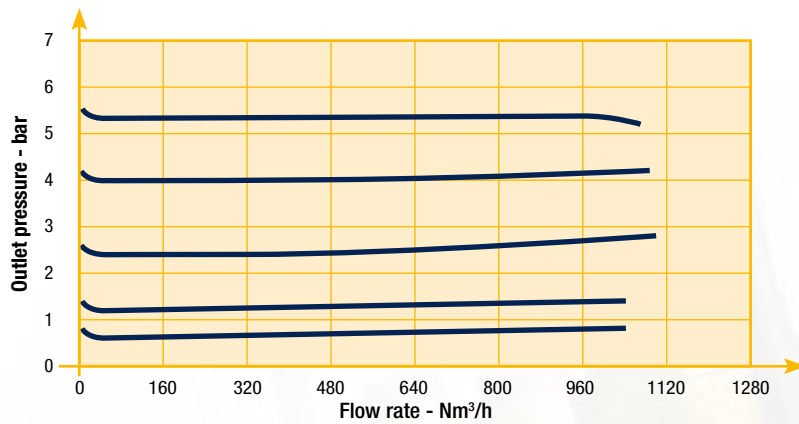


Flow Curves

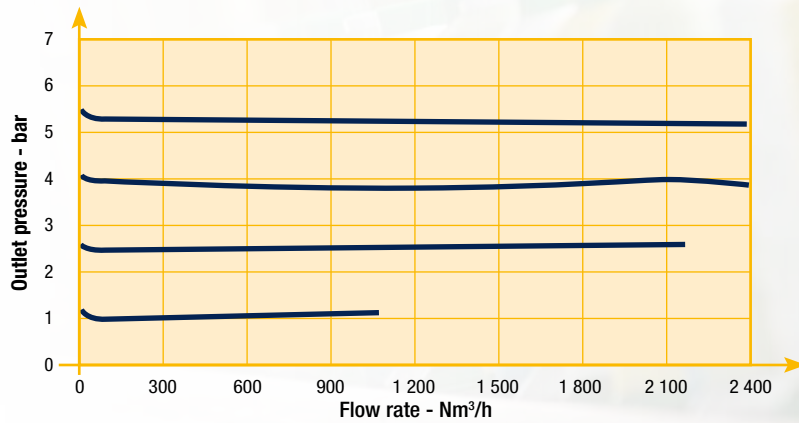
Flow Curve 1/2"



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.



Lucifer® EPP4 Accessories

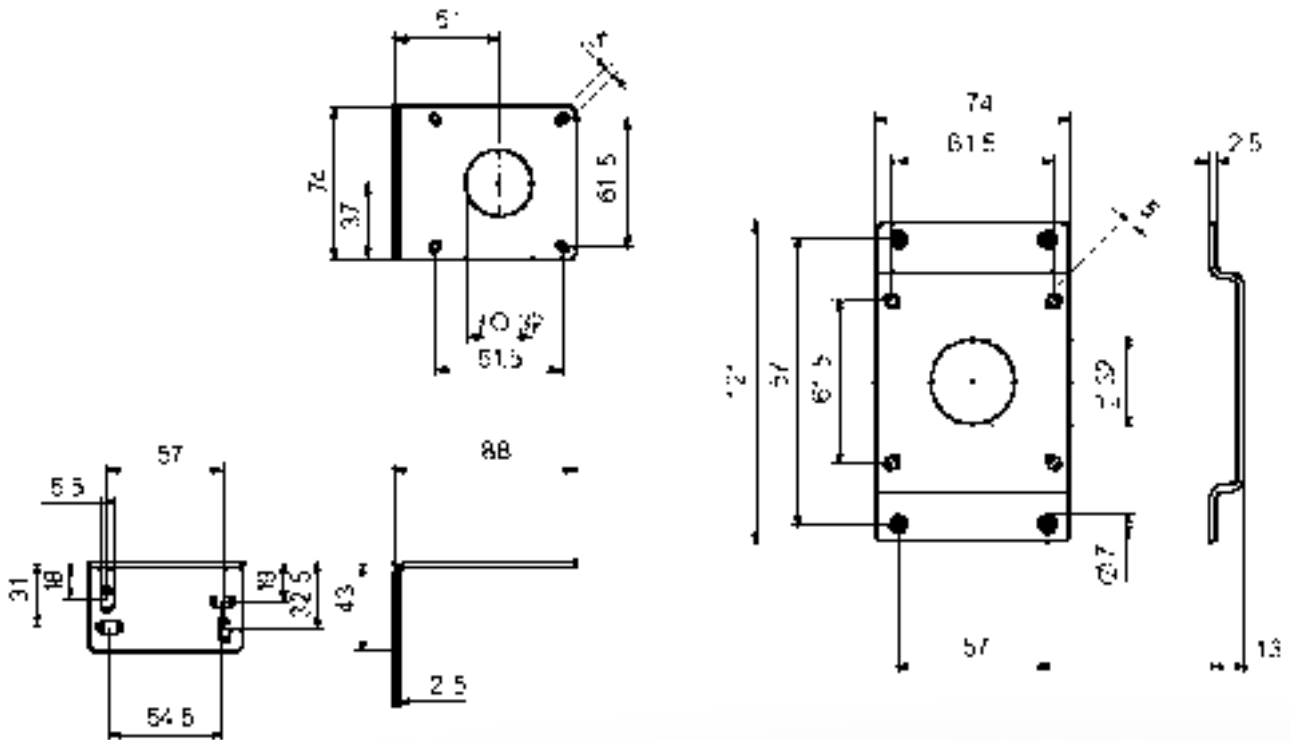
Mounting Brackets for EPP4 1/4" Basic / Comfort



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

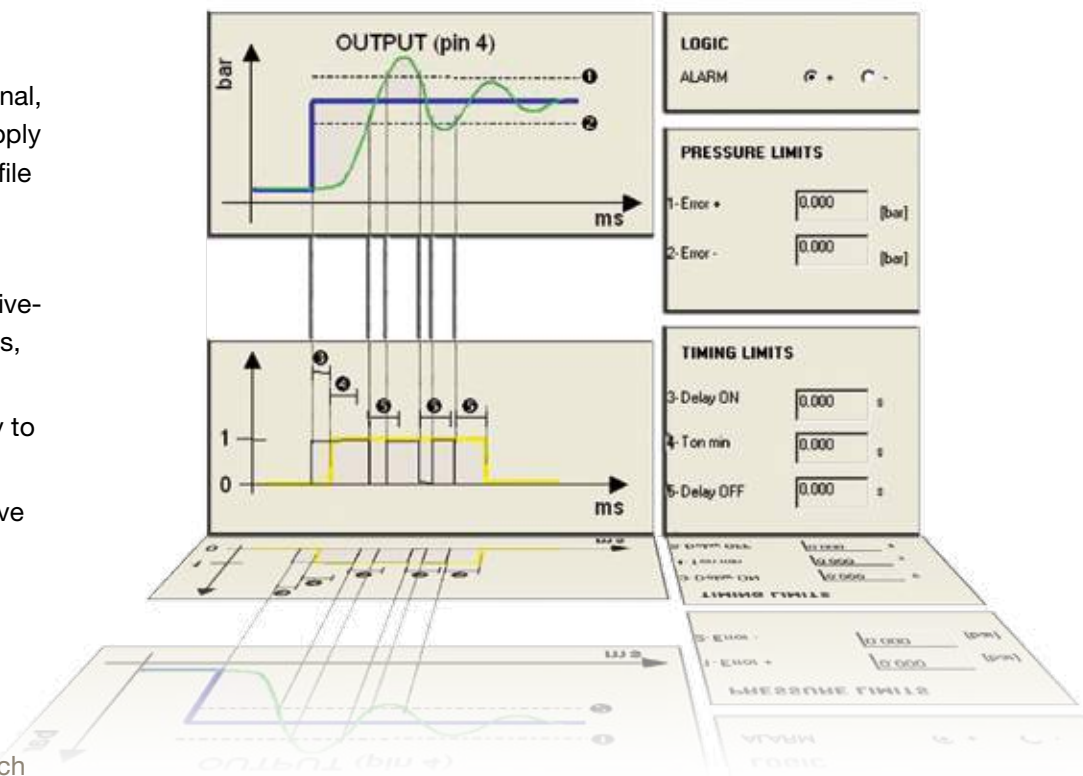
calys Software

Calys is a unique software in house developed to configure all the parameters of the EPP4 Comfort range. Calys is an option of the EPP4. 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
-
- Data in 4 different pressure units
 - 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

Lucifer® EPP4 Comfort Accessories

Remote Display

This option includes the Remote Display and 1.5 meter connecting cable. Connected to the pressure regulator, it offers flexible monitoring.

Compact and highly readable remote LED display:

- Bar and PSI scales
- Security lock
- 1.5 m cable



**Order the Remote Display
under reference 496490**

This option is for safe area only.



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 G1 1/2" & 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



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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
Solenoid valves
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
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
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