



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

<b>Basic</b>	1/4" 1/2"
<b>Comfort</b>	1/4" 1/2"
<b>Comfort</b>	1/2" HP 1" 2"
<b>Comfort ATEX</b>	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



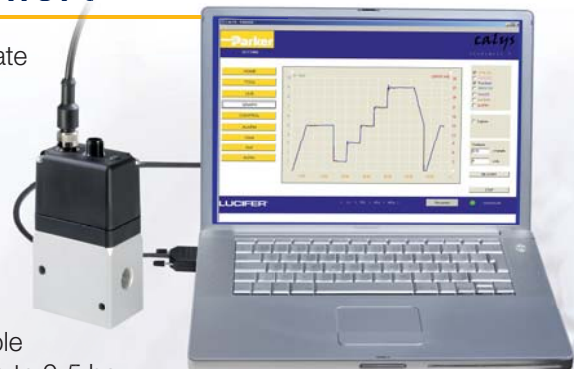
## *calys* Software - for EPP Comfort

Calys is a unique software in house developed to configure 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 which 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](http://www.parker.com/FCDE/Support)



# Summary

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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

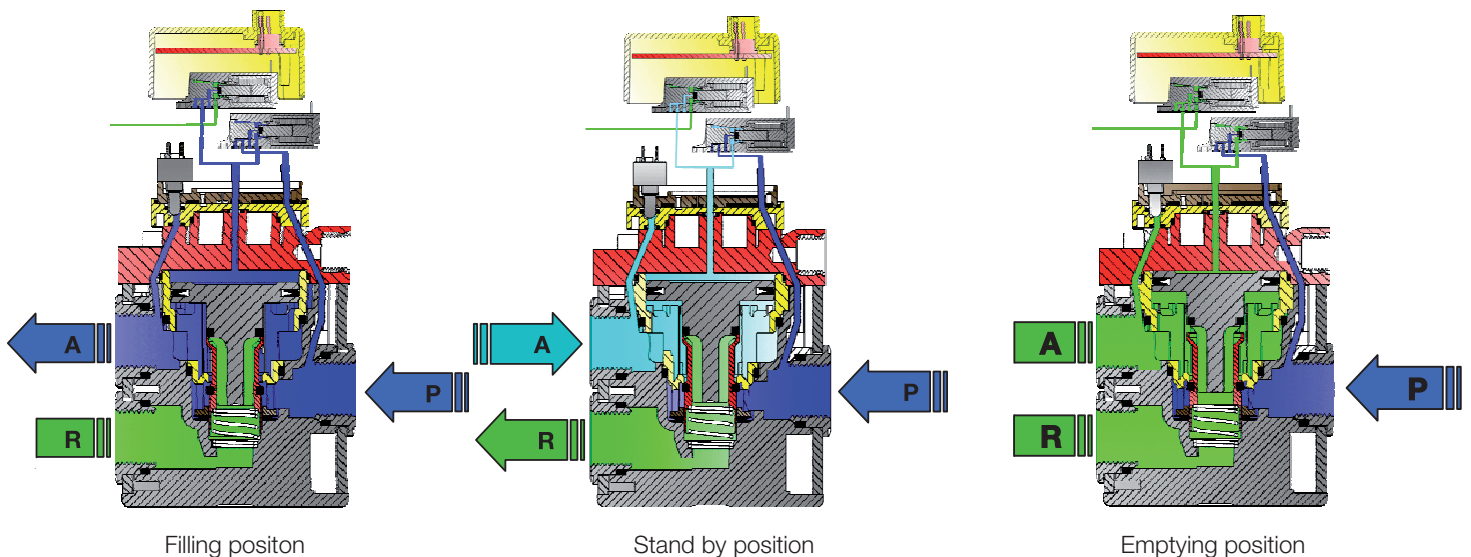
regulator; when energised this valve will fill the servo-chamber for increasing the pressure at the outlet A of the regulator.

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.



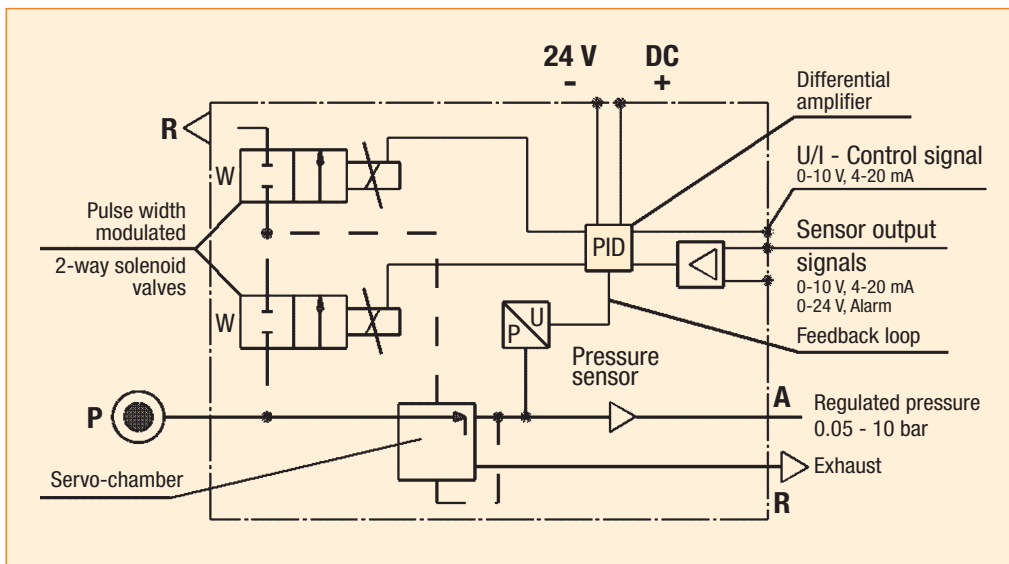
## Block Diagram



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.

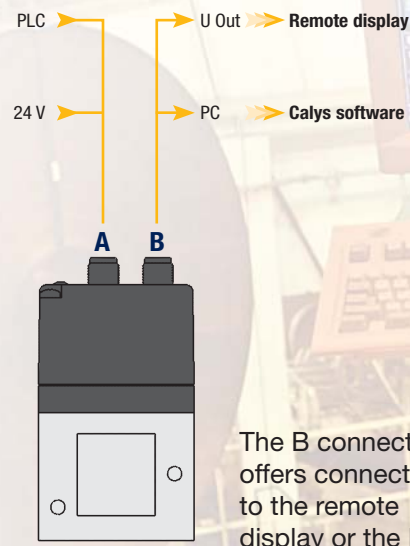
The same feedback signal from the sensor is used for the output feedback in voltage and current. The digital signal (alarm) is activated when the conditions (out of pressure or time tolerance) are met.



## 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"

## Technical Data

<b>Basic</b>	1/4" 1/2"
<b>Comfort</b>	1/4" 1/2"
<b>Comfort</b>	1/2" HP 1" 2"
<b>Comfort ATEX</b>	1/2" 1" 2"

	Basic 1/4"	Basic 1/2"
<b>Fluids:</b>	Lubricated or non lubricated air and neutral gases Recommended filtration: 50 µm	
<b>Temperature range:</b>	Ambient: 0°C to +50 °C Fluid: 0°C to +50 °C	
<b>Inlet pressure range:</b> The inlet pressure must always be at least 1 bar above the regulated pressure.	1 to 12 bar	1 to 12 bar
<b>Outlet pressure range:</b>	0.05 to 10 bar	
<b>Hysteresis:</b>	± 50 mbar (factory set up)	
<b>Air consumption at constant control signal:</b>	0	
<b>Supply voltage:</b>	24 V DC ± 15 % (Max. ripple 1 V)	
<b>Power consumption:</b>	Max. 2.8 W with 24 V DC and constant changes of the control signal < 1.5 W without change of control signal	
<b>Control signal:</b>	Analog 0 - 10 V Analog 4 - 20 mA	
<b>Max. flow:</b> Indicative response time: With a volume of 330 cm <sup>3</sup> at the outlet of the regulator	70 m <sup>3</sup> /h	150 m <sup>3</sup> /h
<b>Filling 2 to 4 bar:</b>	50 msec	60 msec
<b>Filling 2 to 8 bar:</b>	100 msec	120 msec
<b>Emptying 4 to 2 bar:</b>	70 msc	90 msec
<b>Emptying 8 to 2 bar:</b>	130 msc	190 msc
<b>Safety position:</b>	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.	
<b>Electrical connection:</b>	M12 - 4 pin; 4 x 0.34 mm <sup>2</sup>	
<b>Life expectancy:</b>	> 50 Million changes of control signal steps	
<b>Mounting position:</b>	Indifferent (recommended position: upright; electronic part on top)	
<b>Resistance to vibrations:</b>	30 g in all directions	
<b>Degree of protection:</b>	IP 65	
<b>Assembly:</b>	Silicone free	
<b>Electromagnetic compatibility: In accordance with:</b>	EN 61000-6-1: 2001 EN 61000-6-2: 2001 EN 61000-6-3: 2001 EN 61000-6-4: 2001	
<b>Installation and setting instructions:</b>	See our "Notice 408038, 408014" and appendix supplied with the product.	

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

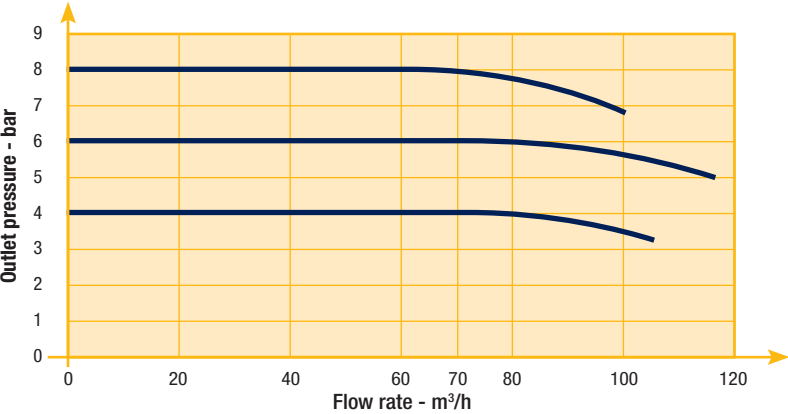


# Lucifer® EPP4 Basic 1/4" & 1/2"

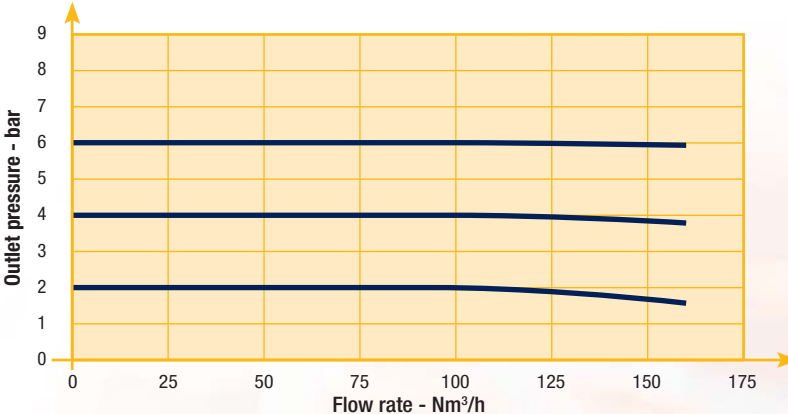
## Flow Curves



Flow Curve Basic 1/4"



Flow Curve Basic 1/2"



# Lucifer® EPP4 Basic 1/4" & 1/2"

## References

Codes	Pipe	Pressure Range (bar)	Control Signal (see options)	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

\* Integrated pilot exhaust

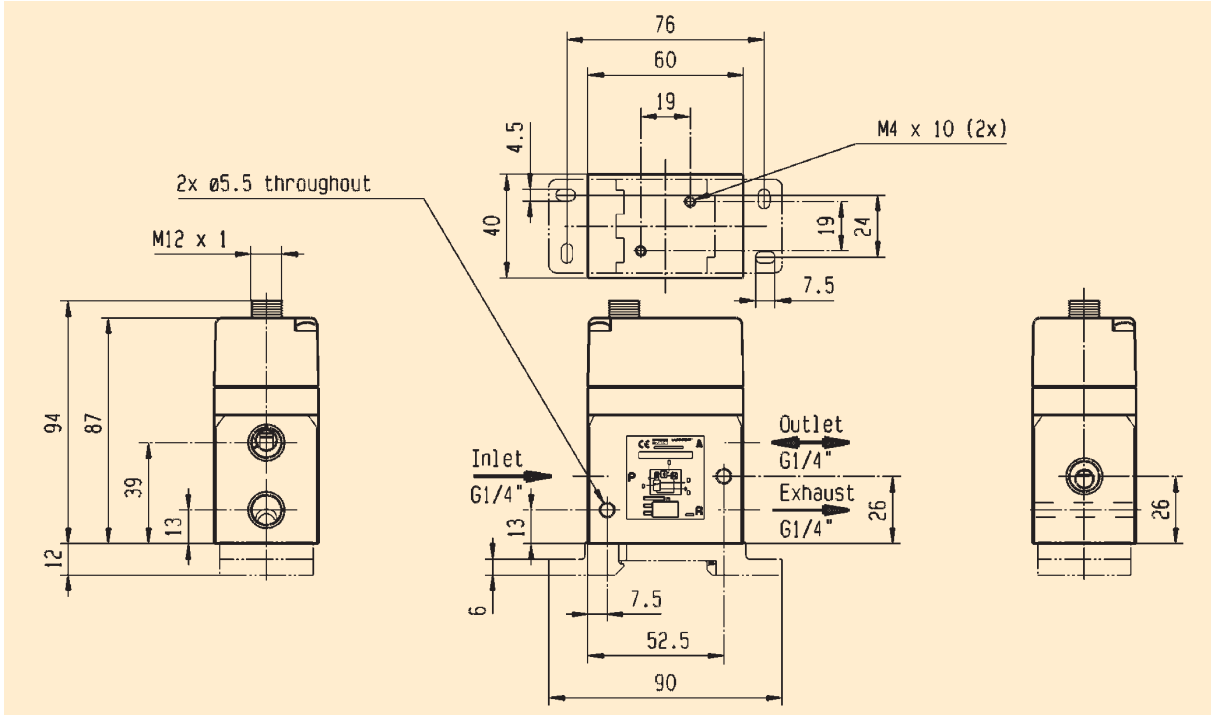
\*\* O2

\*\*\* External pressure supply



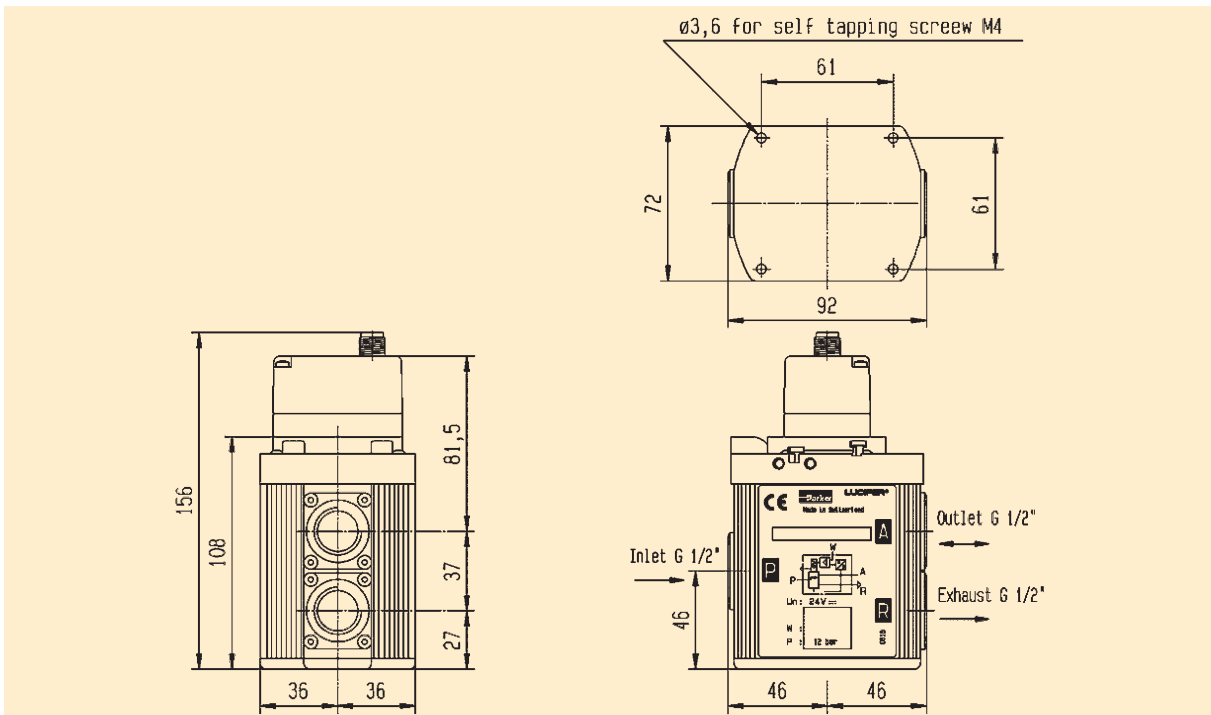
# Lucifer® EPP4 Basic 1/4" & 1/2"

## Dimensions Drawings EPP4 Basic 1/4"



Drawing 1

## Dimensions Drawings EPP4 Basic 1/2"



Drawing 2

# Lucifer® EPP4 Comfort 1/4" & 1/2"

## Technical Data

<b>Basic</b>	1/4" 1/2"
<b>Comfort</b>	1/4" 1/2"
<b>Comfort</b>	1/2" HP 1" 2"
<b>Comfort ATEX</b>	1/2" 1" 2"

	Comfort 1/4"	Comfort 1/2"
<b>Fluids:</b>	Lubricated or non lubricated air and neutral gases - Recommended filtration: 50 µm	
<b>Temperature range:</b>	Ambient: 0°C to +50 °C Fluid: 0°C to +50 °C	
<b>Inlet pressure range:</b> The inlet pressure must always be at least 1 bar above the regulated pressure.	1 to 12 bar	1 to 12 bar
<b>Outlet pressure range:</b>	0.05 to 10 bar	
<b>Hysteresis:</b>	± 50 mbar (factory set up)	
<b>Air consumption at constant control signal:</b>	0	
<b>Supply voltage:</b>	24 V DC ± 15 % (Max. ripple 1 V)	
<b>Power consumption:</b>	Max. 2.8 W with 24 V DC and constant changes of the control signal < 1.5 W without change of control signal	
<b>Control signal:</b>	Analog 0 - 10 V Analog 4 - 20 mA	
<b>Outlet sensor signal:</b>	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 (+/-)
<b>Max. flow:</b>	70 m³/h	150 m³/h
<b>Indicative response time:</b> 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 msec 100 msec 70 msc 130 msc	60 msec 120 msec 90 msec 190 msc
<b>Safety position:</b>	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.	
<b>Electrical connection:</b>	M12 - 8 pin; male connector power supply/control signal M12 - 5 pin; male connector communication	
<b>Life expectancy:</b>	> 50 Million changes of control signal steps	
<b>Mounting position:</b>	Indifferent (recommended position: upright; electronic part on top)	
<b>Resistance to vibrations:</b>	30 g in all directions	
<b>Degree of protection:</b>	IP 65	
<b>Assembly:</b>	Silicone free	
<b>Electromagnetic compatibility: In accordance with:</b>	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	
<b>Installation and setting instructions:</b>	See our "Notice 408128, 408134" and appendix supplied with the product.	

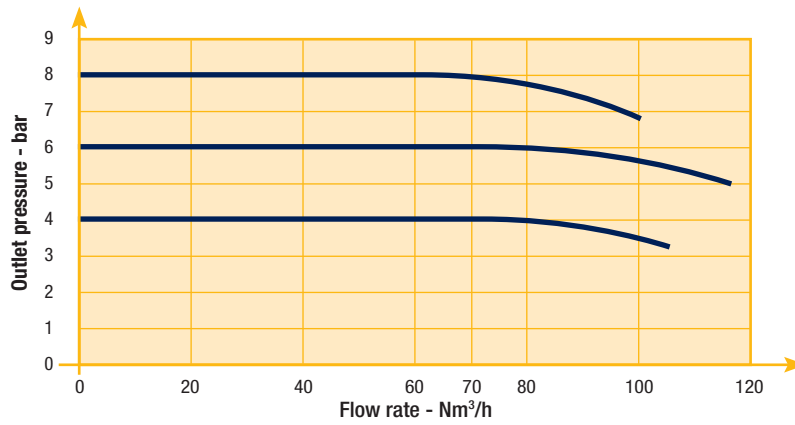
**Note:** Parker reserves the right to change specifications without notification.

# Lucifer® EPP4 Comfort 1/4" & 1/2"

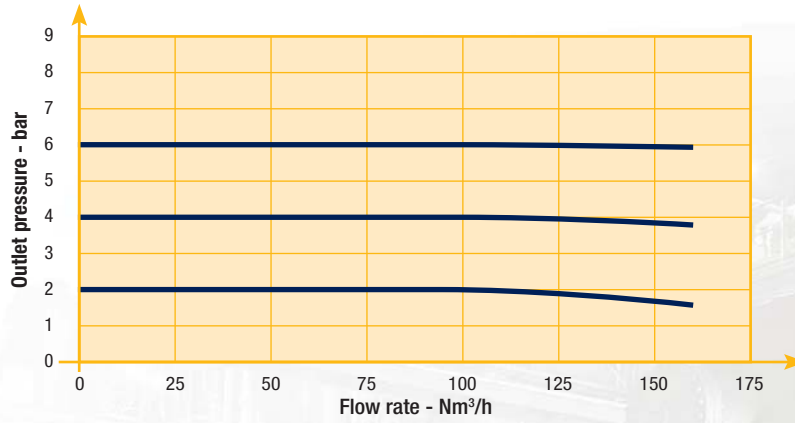
## Flow Curves



Flow Curve 1/4"



Flow Curve 1/2"



# Lucifer® EPP4 Comfort 1/4" & 1/2"

## References

Codes	Pipe	Pressure Range (bar)	Control Signal (see options)	Display	Drawing Number
P4CG2001C001	G 1/4	0 10	0-10 V	-	3
P4CG2001C002	G 1/4	0 10	4-20 mA	-	3
P4CG2001C005	G 1/4	0 7	0-10 V	-	3
P4CG2001C006	G 1/4	0 7	4-20 mA	-	3
P4CG2002C001	G 1/4	0 10	0-10 V	included	3
P4CG2002C002	G 1/4	0 10	4-20 mA	included	3
P4CG2003C001 *	G 1/4	0 10	0-10 V	-	3
P4CG2003C002 *	G 1/4	0 10	4-20 mA	-	3
P4CG2002C007	G 1/4	0 7	0-10 V	included	3
P4CG2002C008	G 1/4	0 7	4-20 mA	included	3
P4CN2001C001	1/4 NPT	0 10	0-10 V	-	3
P4CN2001C002	1/4 NPT	0 10	4-20 mA	-	3
P4CN2002C001	1/4 NPT	0 10	0-10 V	included	3
P4CN2002C002	1/4 NPT	0 10	4-20 mA	included	3
P4CG4001C001	G 1/2	0 10	0-10 V	-	4
P4CG4001C002	G 1/2	0 10	4-20 mA	-	4
P4CG4001C005	G 1/2	0 7	0-10 V	-	4
P4CG4001C006	G 1/2	0 7	4-20 mA	-	4
P4CG4002C001	G 1/2	0 10	0-10 V	included	4
P4CG4002C002	G 1/2	0 10	4-20 mA	included	4
P4CG4002C005	G 1/2	0 7	0-10 V	included	4
P4CG4002C006	G 1/2	0 7	4-20 mA	included	4
P4CG4051C001 **	G 1/2	0 10	0-10 V	-	4
P4CG4051C002 **	G 1/2	0 10	4-20 mA	-	4
P4CN4001C001	1/2 NPT	0 10	0-10 V	-	4
P4CN4001C002	1/2 NPT	0 10	4-20 mA	-	4
P4CN4002C001	1/2 NPT	0 10	0-10 V	included	4
P4CN4002C002	1/2 NPT	0 10	4-20 mA	included	4

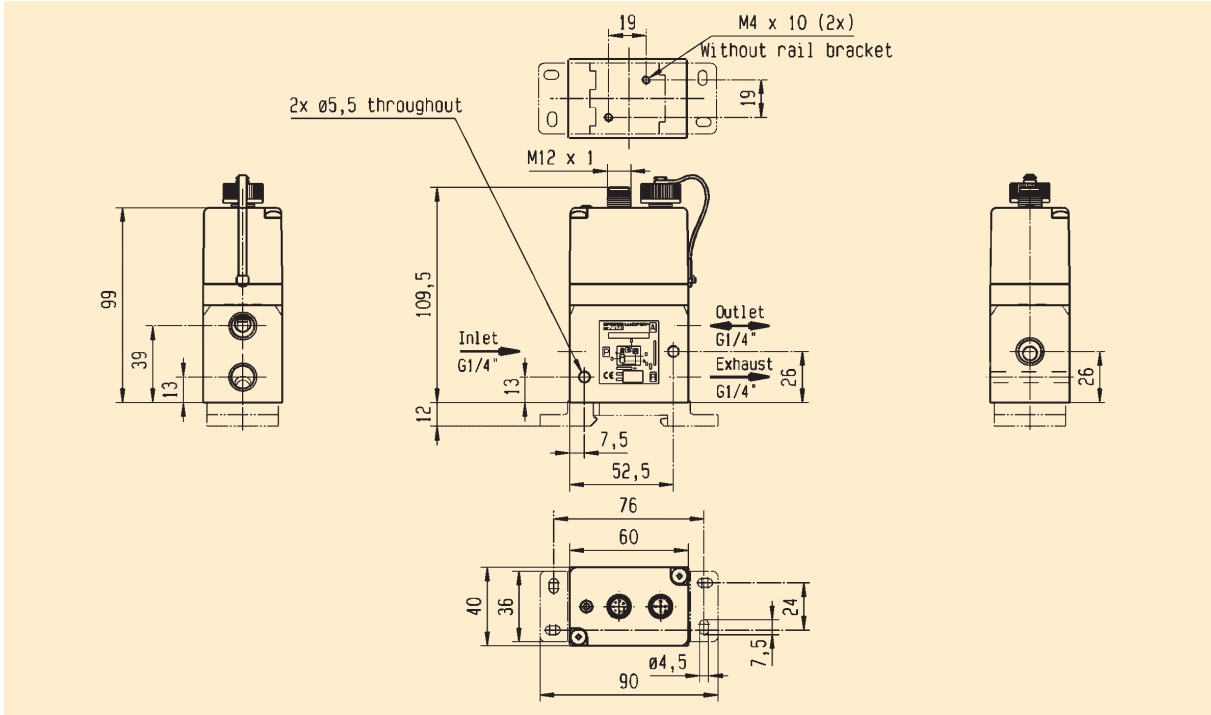
\* Integrated pilot exhaust

\*\* O2



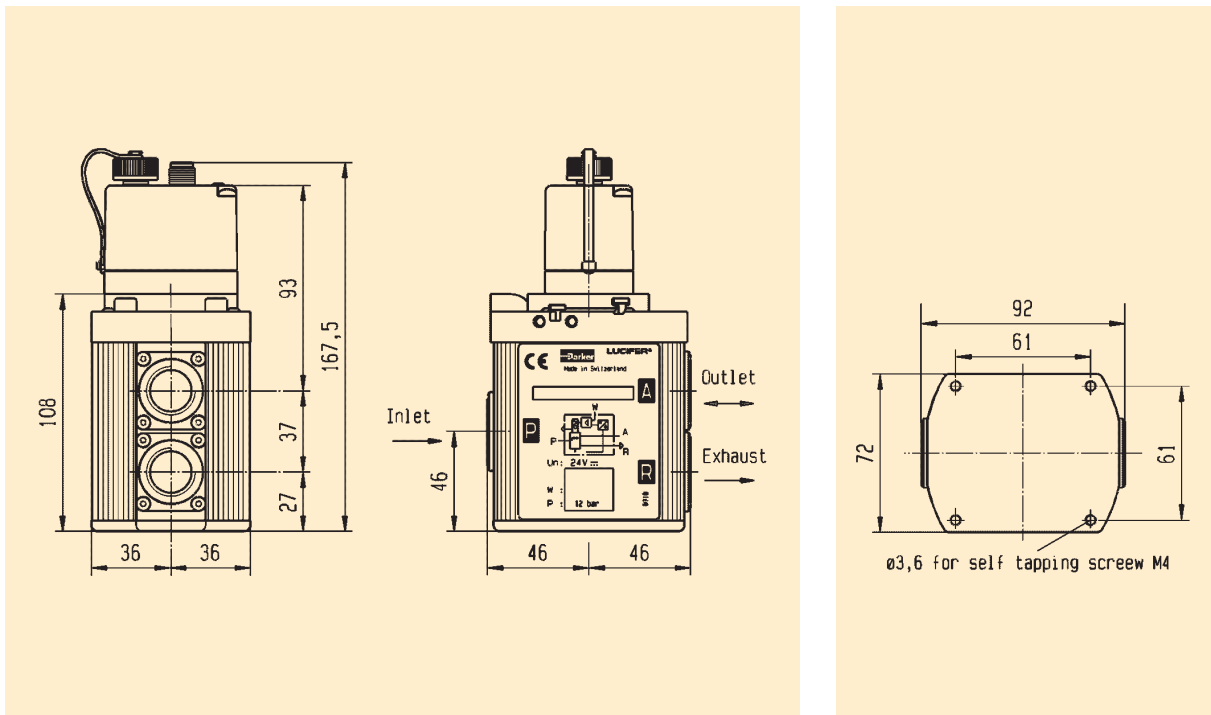
# Lucifer® EPP4 Comfort 1/4" & 1/2"

## Dimensions Drawings EPP4 Comfort Range 1/4"



Drawing 3

## Dimensions Drawings EPP4 Comfort Range 1/2"



Drawing 4

# Lucifer® EPP4 Comfort

## 1/2"HP, 1" & 2"

### Technical Data

Basic	1/4" 1/2"
Comfort	1/4" 1/2"
<b>Comfort</b>	<b>1/2" HP 1" 2"</b>
Comfort ATEX	1/2" 1" 2"

	Comfort 1/2" HP	Comfort 1"	Comfort 2"
<b>Fluids:</b>	Lubricated or non lubricated air and neutral gases - Recommended filtration: 50 µm		
<b>Temperature range:</b>	<b>Ambient:</b> 0°C to +50°C <b>Fluid:</b> 0°C to +50°C		
<b>Inlet pressure range:</b> 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
<b>Outlet pressure range:</b>	0.05 to 20 bar	0.05 to 20 bar	0.05 to 10 bar
<b>Hysteresis:</b>	≤ 100 mbar if P inlet ≤ 10 bar ≤ 200 mbar if P inlet > 10 bar		
<b>Air consumption at constant control signal:</b>	0		
<b>Supply voltage:</b>	24V DC ± 15%		
<b>Power consumption:</b>	Max. 6 W with 24 V DC and constant changes of the control signal < 2 W without change of control signal		
<b>Control signal:</b>	Analog 0 - 10 V Analog 4 - 20 mA		
<b>Outlet sensor signal:</b>	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 (+/-)	
<b>Max. flow:</b>	150 m³/h	1 000 m³/h	2 700 m³/h
<b>Indicative response time:</b>	With a volume of 330 cm³ at the outlet of the regulator		
Filling 2 to 8 bar:	120 msec	250 msec	250 msec
Emptying 8 to 2 bar:	190 msc	400 msc	400 msc
<b>Safety position:</b>	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.		
<b>Electrical connection:</b>	M12 - 8 pin; male connector power supply/control signal M12 - 5 pin; male connector communication		
<b>Life expectancy:</b>	> 20 Million changes of control signal steps		
<b>Mounting position:</b>	Indifferent (recommended position: upright; electronic part on top)		
<b>Resistance to vibrations:</b>	30 g in all directions		
<b>Degree of protection:</b>	IP 65		
<b>Assembly:</b>	Silicone free		
<b>Electromagnetic compatibility: In accordance with:</b>	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		
<b>Installation and setting instructions:</b>	See our "408 193" and appendix supplied with the product.		

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

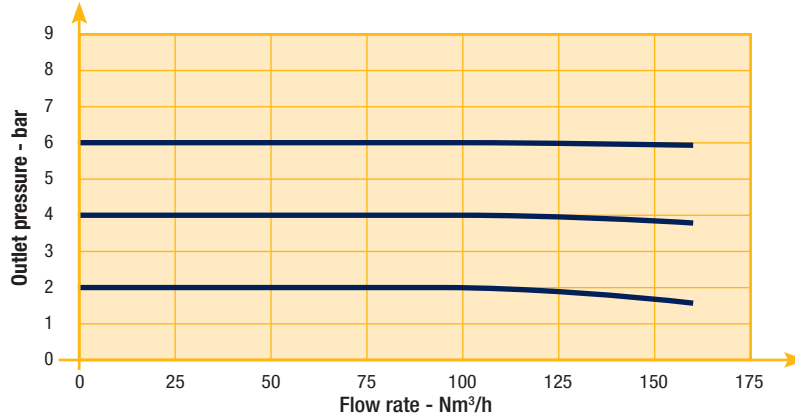


# Lucifer® EPP4 Comfort 1/2"HP, 1" & 2"

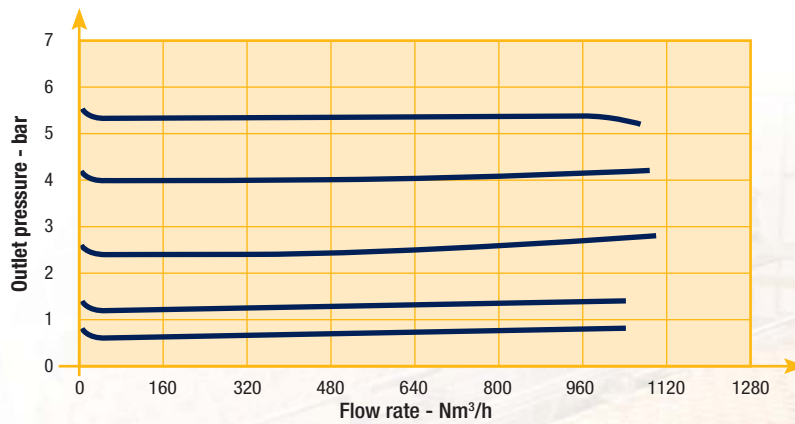
## Flow Curves



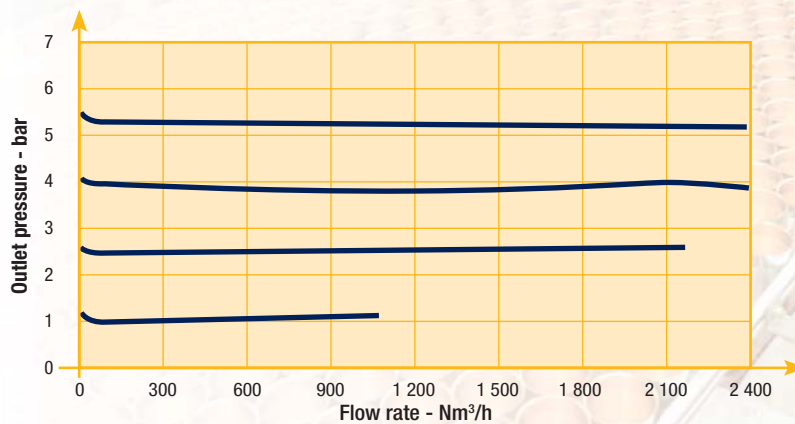
Flow Curve 1/2"HP



Flow Curve 1"



Flow Curve 2"



# Lucifer® EPP4 Comfort 1/2"HP

## References

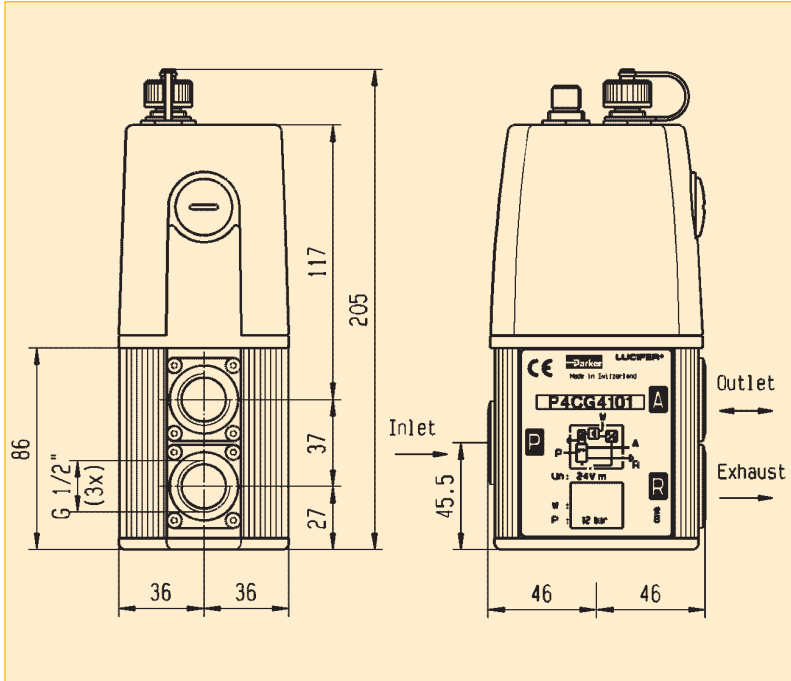
Codes	Pipe	Max inlet pressure (bar)	Pressure range (bar)		Control signal (see options)	Dimensional Drawing
P4CG4101D001	G1/2	15	0	12	0-10 V	5
P4CG4201D005	G1/2	21	0	16	0-10 V	6
P4CG4201D003	G1/2	21	0	20	0-10 V	6
P4CG4201D004	G1/2	21	0	20	4-20 mA	6

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

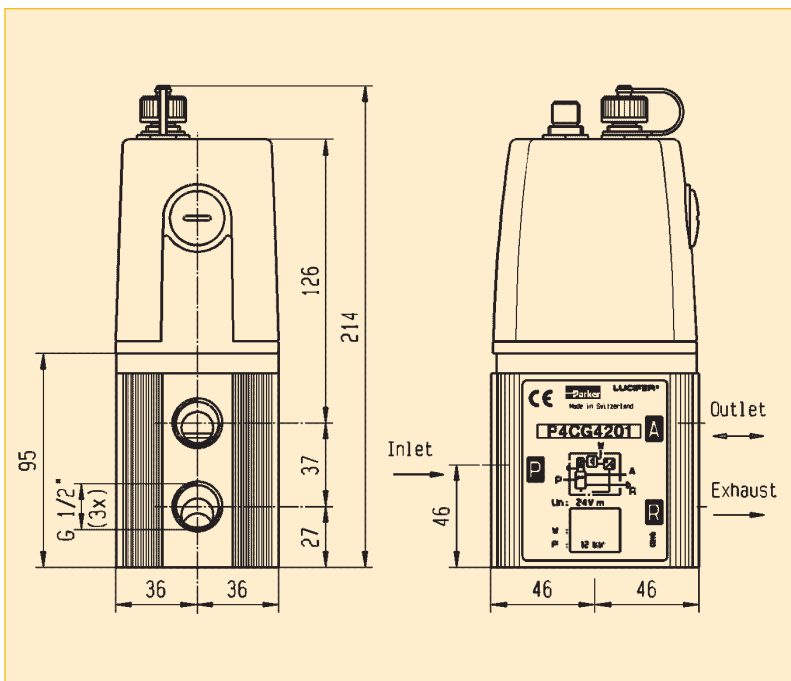
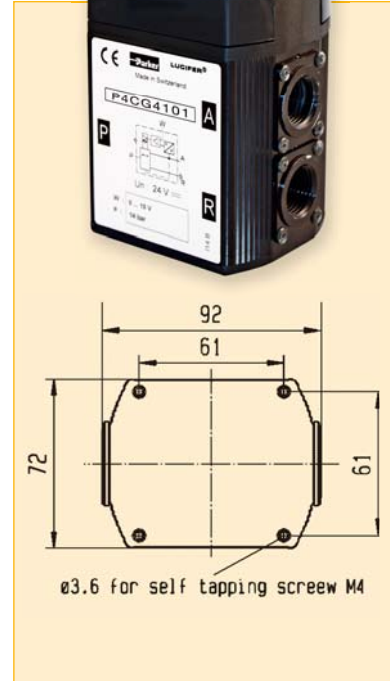


# Lucifer® EPP4 Comfort 1/2"HP

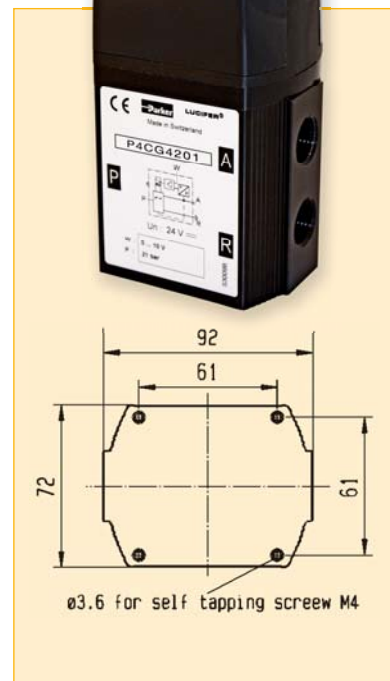
## Dimensions Drawings



Drawing 5



Drawing 6



# Lucifer® EPP4 Comfort 1" & 2"

## References

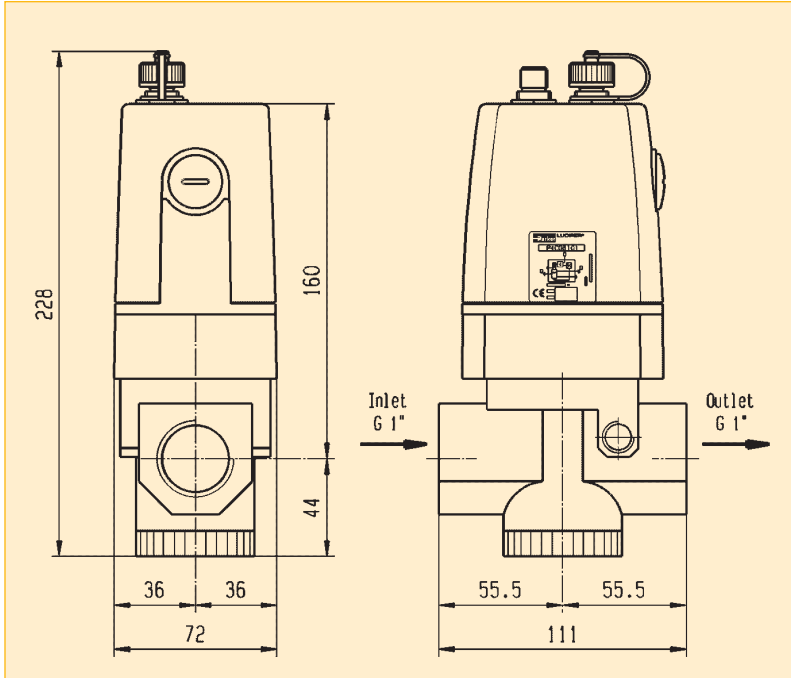
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Codes	Pipe	Max inlet pressure (bar)	Pressure range (bar)		Control signal (see options)	Dimensional Drawing
P4CG6101C009	G1	12	0	3.5	4-20 mA	7
P4CG6101C011	G1	12	0	5.0	0-10 V	7
P4CG6101C010	G1	12	0	6.0	4-20 mA	7
P4CG6101C001	G1	12	0	10	0-10 V	7
P4CG6101C002	G1	12	0	10	4-20 mA	7
P4CG6201D001	G1	21	0	12	-	7
P4CG6201D003	G1	21	0	20	0-10 V	7
P4CG9101C012	G2	12	0	4.0	4-20 mA	8
P4CG9101C010	G2	12	0	6.0	4-20 mA	8
P4CG9101C001	G2	12	0	10	0-10 V	8
P4CG9101C002	G2	12	0	10	4-20 mA	8

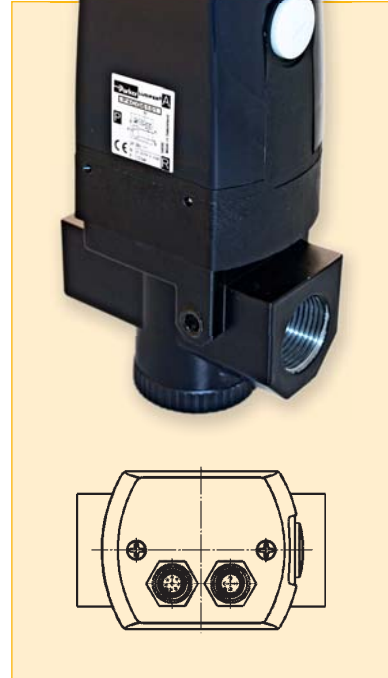
Other specific settings or specialties are available, please contact us.

# Lucifer® EPP4 Comfort 1" & 2"

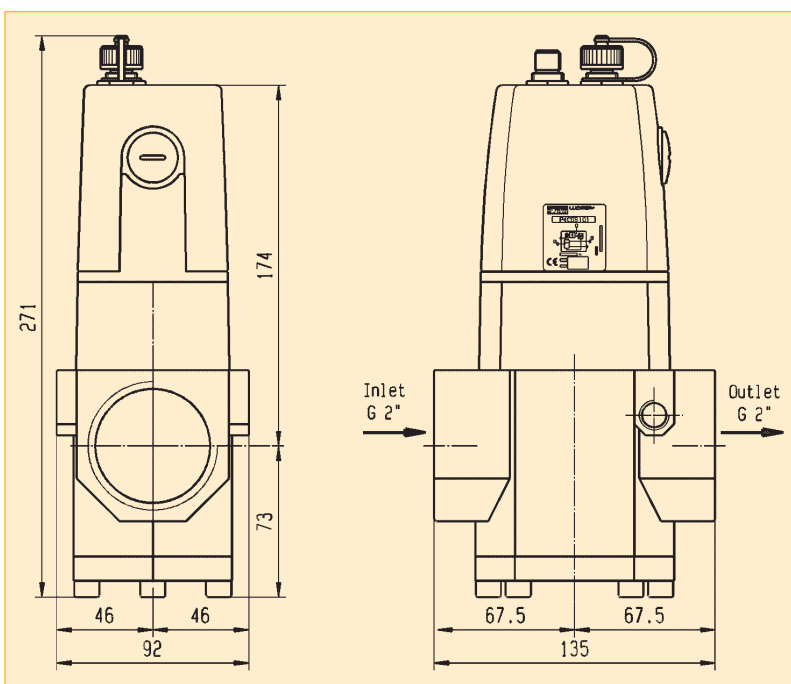
## Dimensions Drawings EPP4 Comfort Range 1"



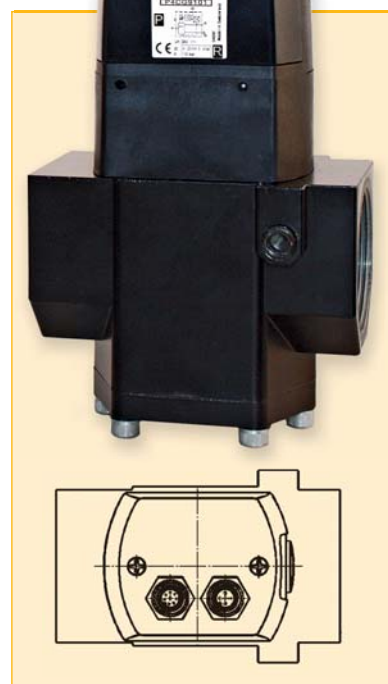
Drawing 7



## Dimensions Drawings EPP4 Comfort Range 2"



Drawing 8



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



## Technical Data

<b>Basic</b>	1/4" 1/2"
<b>Comfort</b>	1/4" 1/2"
<b>Comfort</b>	1/2" HP 1" 2"
<b>Comfort ATEX</b>	1/2" 1" 2"

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

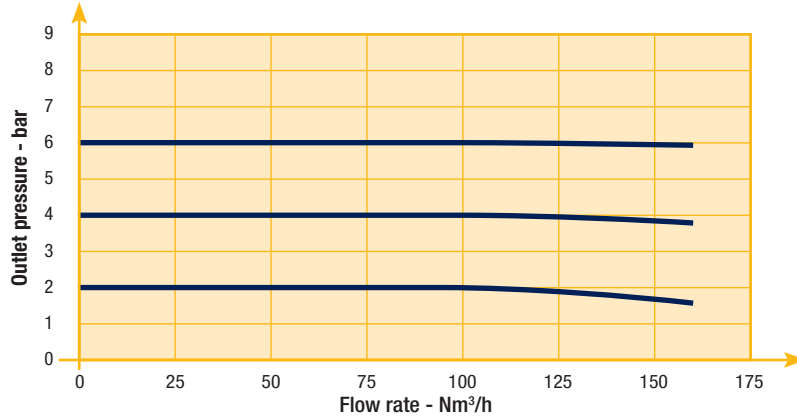
**Note:** Parker reserves the right to change specifications without notification.

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

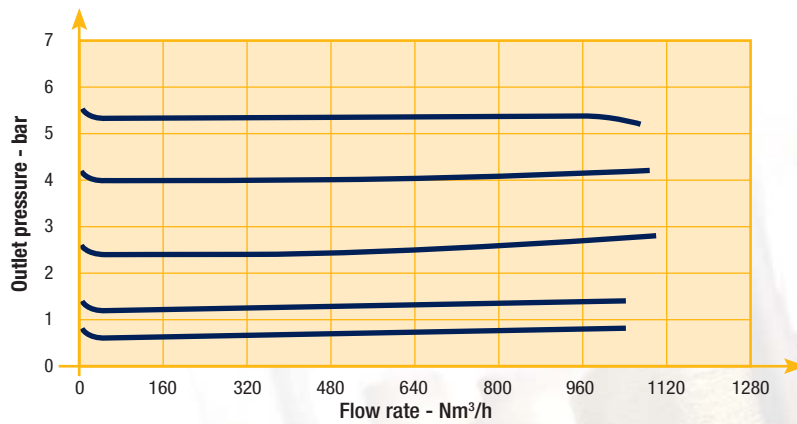


## Flow Curves

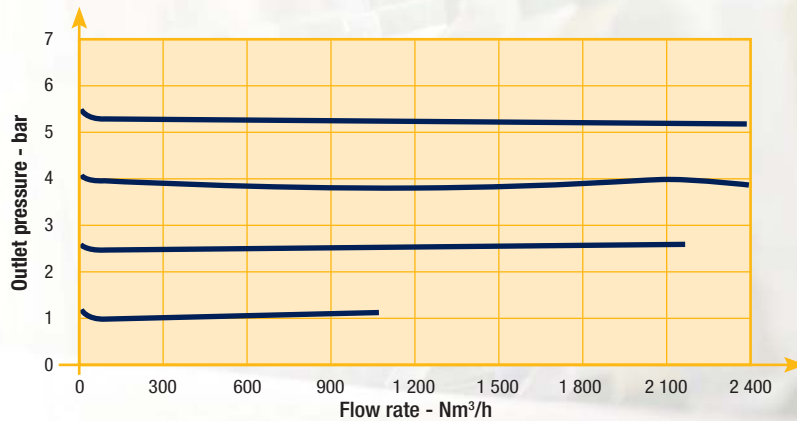
Flow Curve 1/2"



Flow Curve 1"



Flow Curve 2"



# Lucifer® EPP4 Comfort 1/2" ATEX



## References

Codes	Pipe	Max inlet pressure (bar)	Pressure range (bar)		Control signal (see options)	Dimensional Drawing
P4CG4461C001	G1/2	12	0	10	0-10 V	9
P4CG4461C002	G1/2	12	0	10	4-20 mA	9
P4CG4465C001 **	G1/2	12	0	10	0-10 V	9
P4CG4465C002 **	G1/2	12	0	10	4-20 mA	9

\*\* O2

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

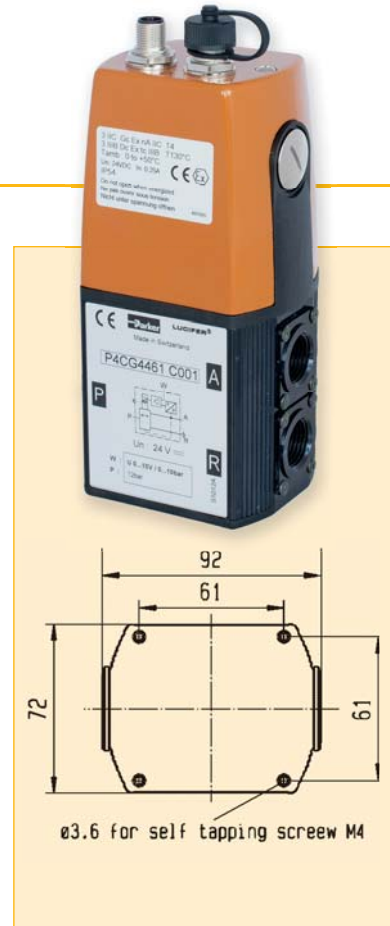
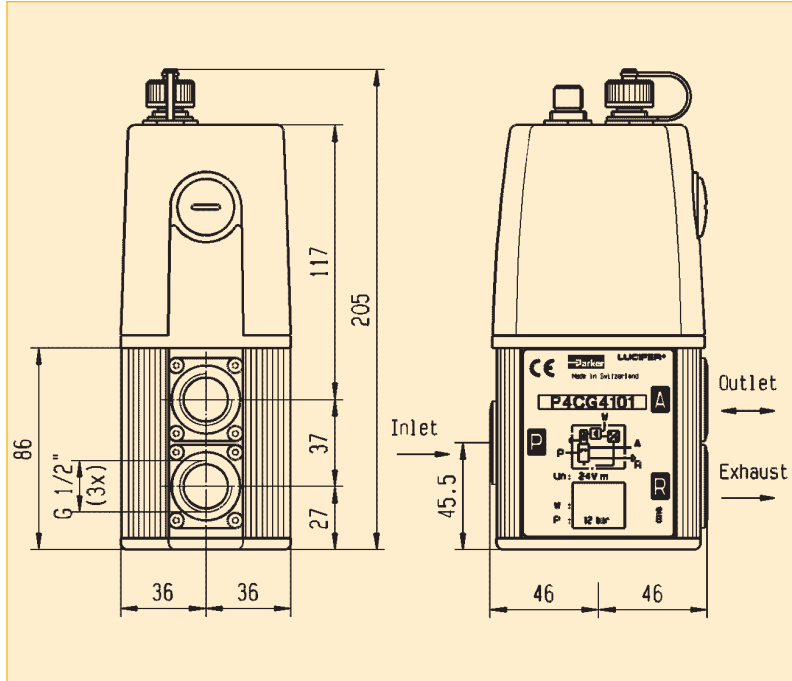




# Lucifer® EPP4 Comfort 1/2" ATEX



## Dimensions Drawings



Drawing 9

# Lucifer® EPP4 Comfort 1" & 2" ATEX



## References

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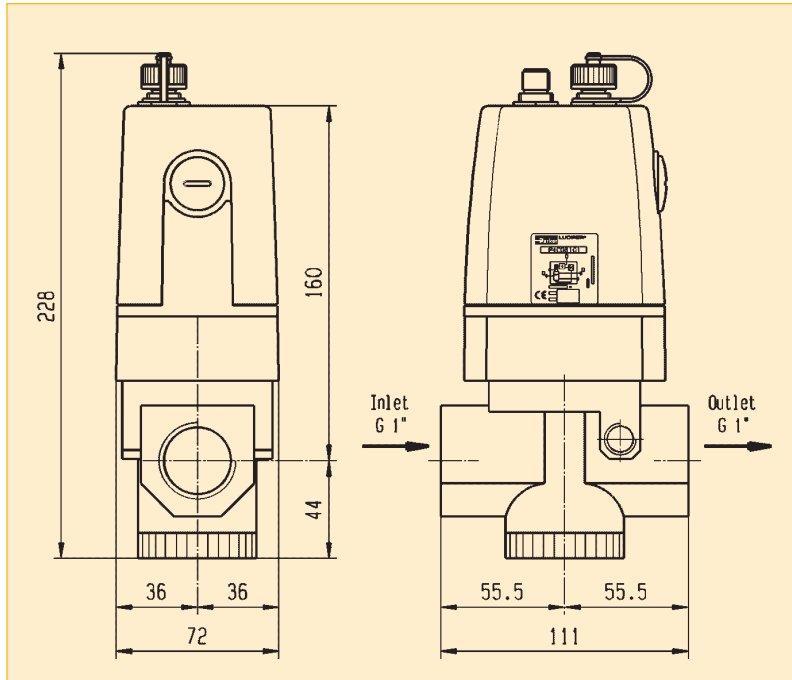
Codes	Pipe	Max inlet pressure (bar)	Pressure range (bar)		Control signal (see options)	Dimensional Drawing
P4CG6161C001	G1	12	0	10	0-10 V	11
P4CG6161C002	G1	12	0	10	4-20 mA	11
P4CG9161C001	G2	12	0	10	0-10 V	12
P4CG9161C002	G2	12	0	10	4-20 mA	12

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

# Lucifer® EPP4 Comfort 1" & 2" ATEX

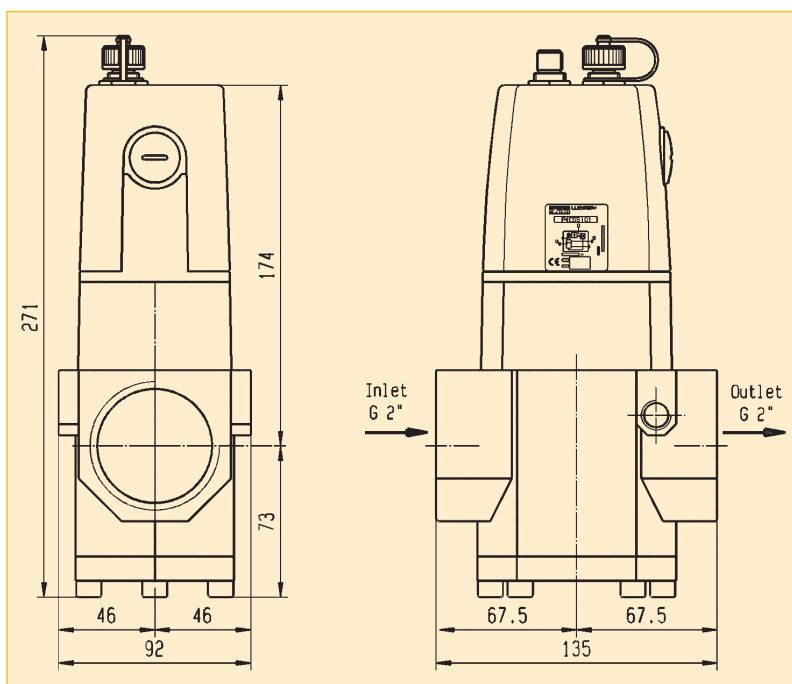


## Dimensions Drawings EPP4 Comfort Range 1"



Drawing 11

## Dimensions Drawings EPP4 Comfort Range 2"



Drawing 12

# Lucifer® EPP4 Accessories

## Mounting Brackets for EPP4 1/4" Basic / Comfort

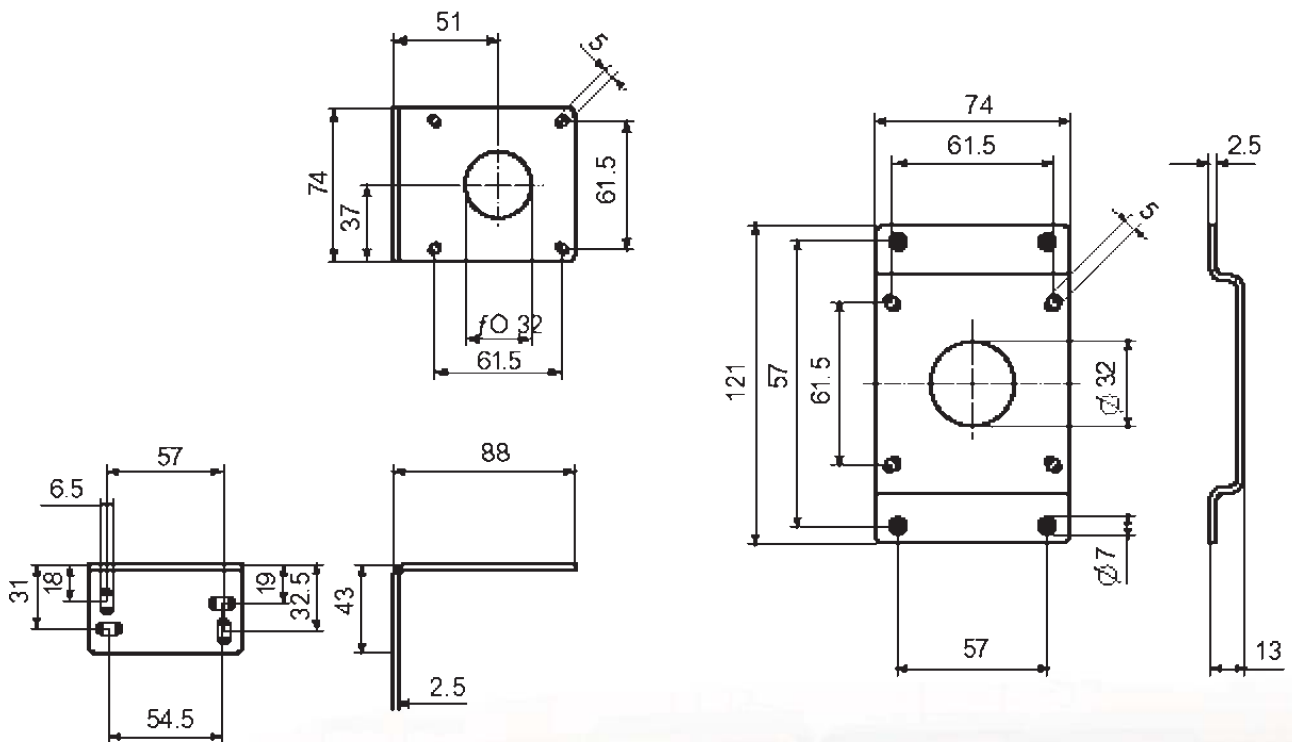
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**This mounting bracket is delivered as a standard with all EPP4 1/4".**

# 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

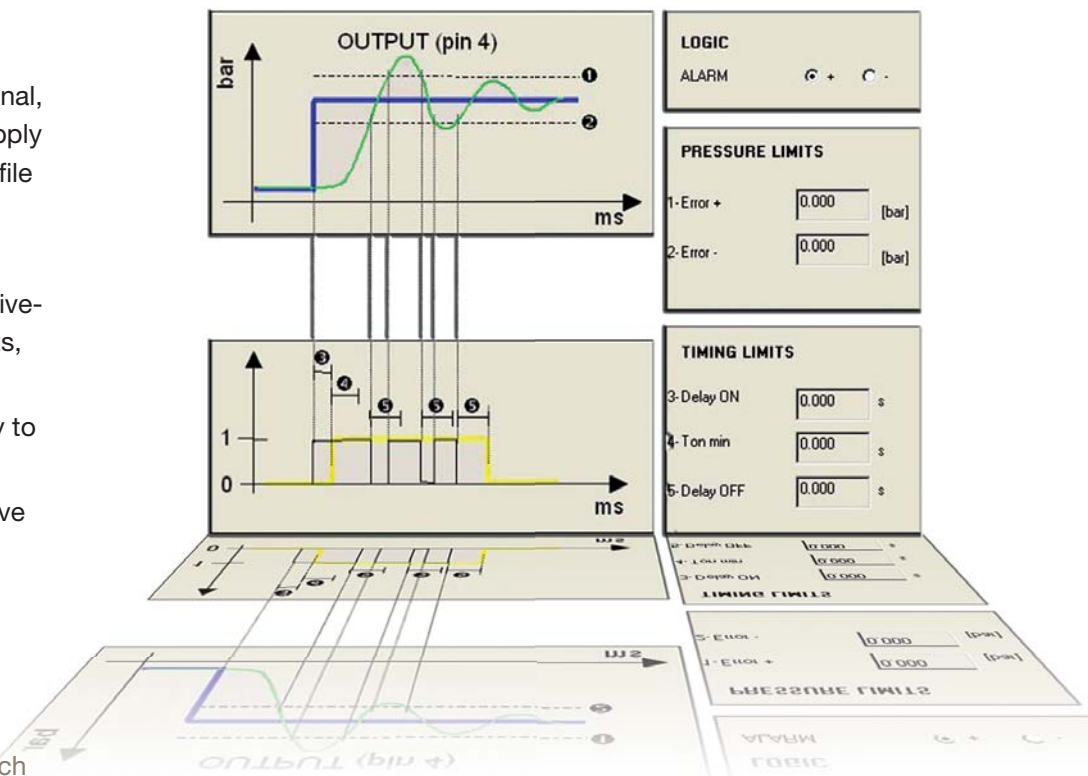
## calys Software

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](http://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:

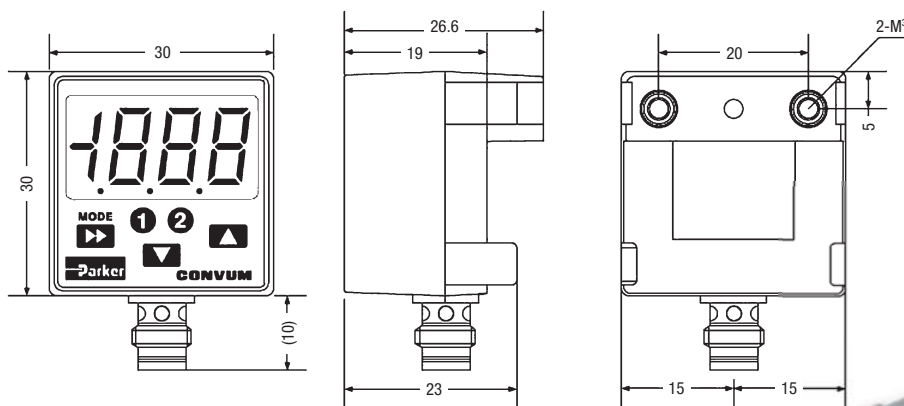
- Bar and PSI scales
- Security lock
- 1.5 m cable
- Mounting brackets

**Order the Remote Display under reference 496490**

This option is for safe area only.



## Panel Mounting Kit



**Order the Panel Mounting Kit under reference 496610**



### 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<sup>1</sup>/<sub>2</sub>" & 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



- Integral 1/4 ports (BSPP & NPT)
- High efficiency 5 micron element as standard
- Excellent water removal efficiency
- Robust lightweight construction
- Secondary pressure ranges 2, 4 & 8 bar

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<sup>®</sup> Miniature FRLs



- Compact body ported units.
- Port sizes G<sup>1</sup>/<sub>8</sub> and G<sup>1</sup>/<sub>4</sub>.
- 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
- 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 lightweight 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  
CO<sub>2</sub> 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  
Metal & plastic retained composite seals  
Shielded optical windows  
Silicone tubing & extrusions  
Thermal management  
Vibration dampening

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Free phone: 00 800 27 27 5374

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## US Product Information Centre

Toll-free number: 1-800-27 27 537

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