

- 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
- P31P flows to 19 dm³/s (40 scfm)
- P32P flows to 57 dm³/s (120 scfm)



P31PA Series
Bottom exhaust



P32PA Series
Bottom exhaust

Order Key

P 3

PA

Port size	
Global Mini (1/4")	1
Global Compact (1/2")	2

Thread type	
BSPP	1
NPT	9

Port size	
Global Mini (1/4")	2
Global Compact (1/2")	4

Version	
Bottom ported exhaust NC	A
Bottom ported forced exhaust (NO) *	E

Pressure Range	
0 - 2 bar	Z
0 - 7 bar	S
0 - 10 bar	D

Power supply	
24 volts	2

Control Signal	
0-10 V	V
4-20 mA	A

Output Signal		
Digital, PNP 1)		D
PNP or 0-10V 2)		P
NPN or 0-10V 3)		N
4-20mA fixed 4)		M

Input connector	
M12 (4 pin)	1

* When the supply voltage is lost the unit will automatically exhaust the regulated pressure to 0 bar (atmospheric pressure)

1) Digital PNP output only, no analogue output selectable

2) Digital PNP and analogue 0-10V outputs selectable, by means of parameter 6. (Factory default 0-10V)

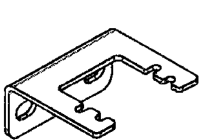
3) Digital NPN and analogue 0-10 V outputs selectable by means of parameter 6. (Factory default 0-10V)

4) Analogue 4-20mA output only.

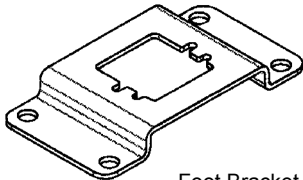
Note: On all analogue outputs the F.S. value can be adjusted by means of parameter 8

P31P Mounting brackets

Order Code	Description
P3HKA00ML	L-Bracket mounting kit
P3HKA00MC	Foot bracket mounting kit



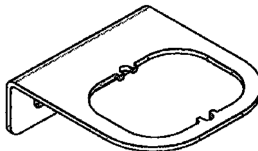
L-Bracket



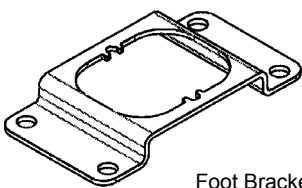
Foot Bracket

P32P Mounting brackets

Order Code	Description
P3KKA00ML	L-Bracket mounting kit
P3KKA00MC	Foot bracket mounting kit



L-Bracket



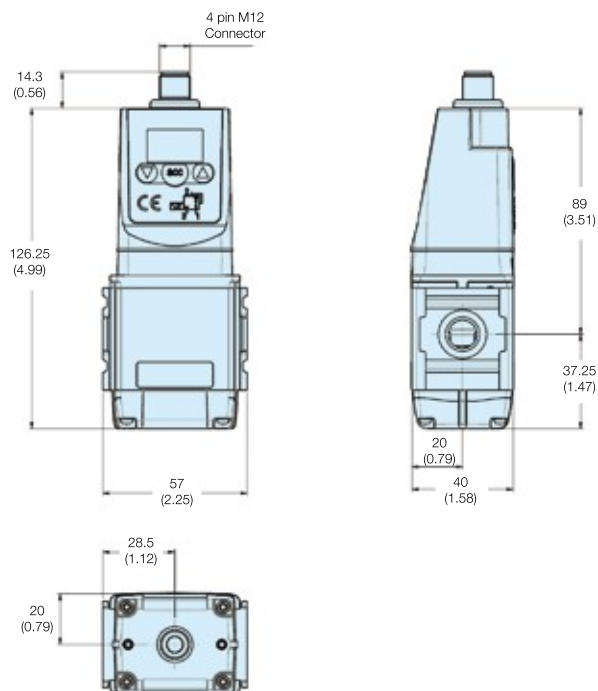
Foot Bracket

Cables

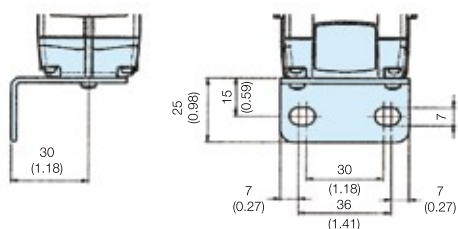
Order Code	Description
P8L-MC04A2A-M12	2 mtr. cable with moulded straight M12x1 connector
P8L-MC04R2A-M12	2 mtr. cable with moulded 90 degree M12x1 connector.

Note:
These brackets fit both Proportional Regulators and Combined Soft Start & Dump Valves.

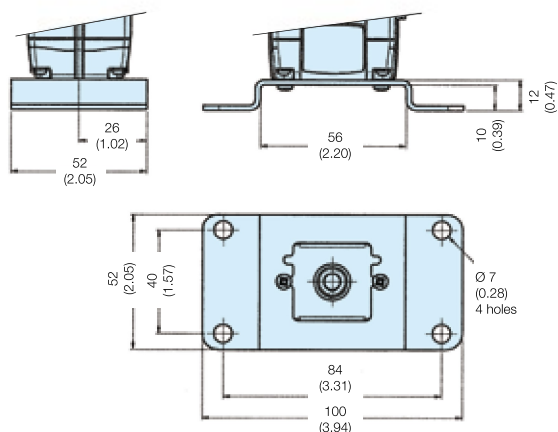
P31P



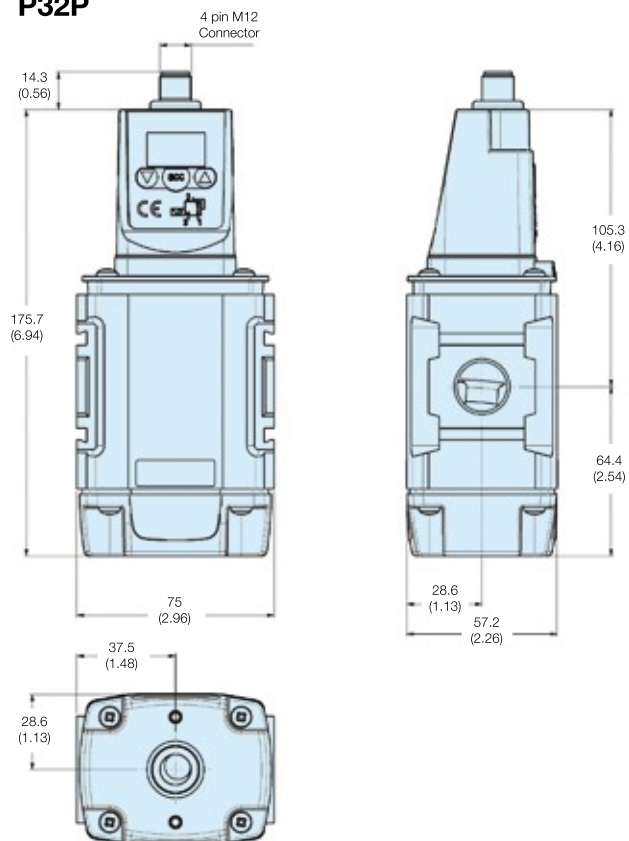
L-Bracket



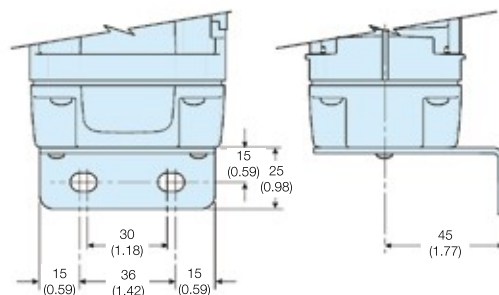
Foot Bracket



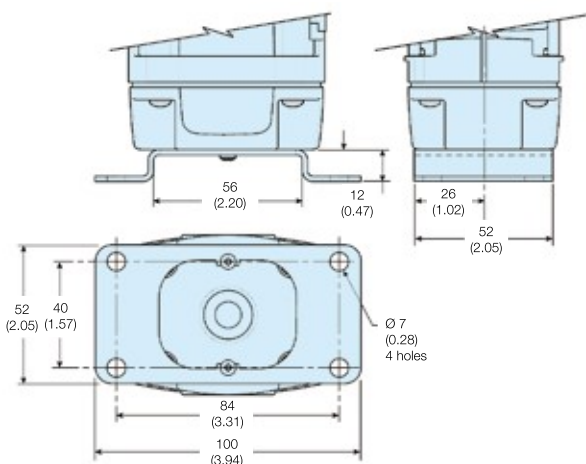
P32P



L-Bracket



Foot Bracket



Dimensions are in mm (Inches)

P3X Proportional Pressure Regulator



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

Options:

P 3 X P A

BSPP (G)	1
NPT *	9

* NPT Ports on request 1/2” size only

1/2	4
3/4	6

Side exhaust NC (Normally closed)	B
Side exhaust NO (Normally open)	C

0 - 7 bar	S
0 - 10 bar	D

* Other pressures available on request.

24 volts	2
----------	----------

4-20mA	A
0-20mA	B
0-10V	V

Analogue 0-10V	A
----------------	----------

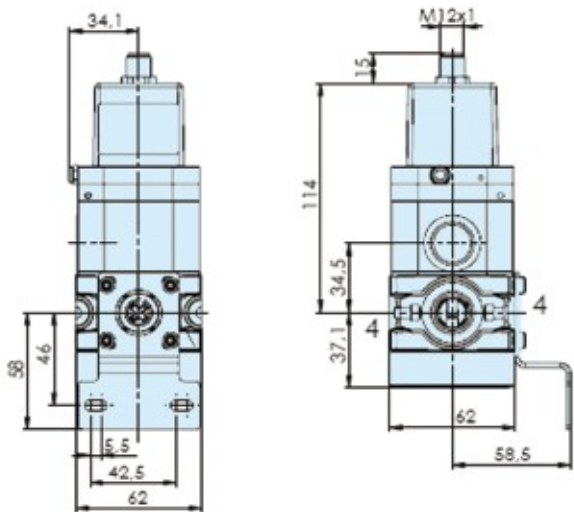
M12 (5 pin)	2
-------------	----------

Without bracket	A
-----------------	----------

Popular options:

Port size	Description	Order Code	Control signal	Output signal	Output pressure	Weight kg
1/2	Normally closed	P3XPA14BD2VA2A	0 - 10 V	0 - 10 V	0 - 10 bar	0.75
3/4	Normally closed	P3XPA16BD2VA2A	0 - 10 V	0 - 10 V	0 - 10 bar	0.75

Dimensions (mm)



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

P3Y Proportional Pressure Regulator



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

Options:

P 3 Y P A

BSPP (G)	1
NPT	9

3/4	6
1"	8

Side exhaust NC (Normally closed)	B
Side exhaust NO (Normally open)	C

0 - 7 bar	S
0 - 10 bar	D

* Other pressures
available on request.

24 volts	2
----------	---

4-20mA	A
0-20mA	B
0-10V	V

Analogue 0-10V	A
----------------	---

M12 (5 pin)	2
-------------	---

Without bracket	A
--------------------	---

Popular options:

Port size	Description	Order Code	Control signal	Output signal	Output pressure	Weight kg
3/4	Normally closed	P3YPA16BD2VA2A	0 - 10 V	0 - 10 V	0 - 10 bar	1.2
1"	Normally closed	P3YPA18BD2VA2A	0 - 10 V	0 - 10 V	0 - 10 bar	1.2

Dimensions (mm)

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

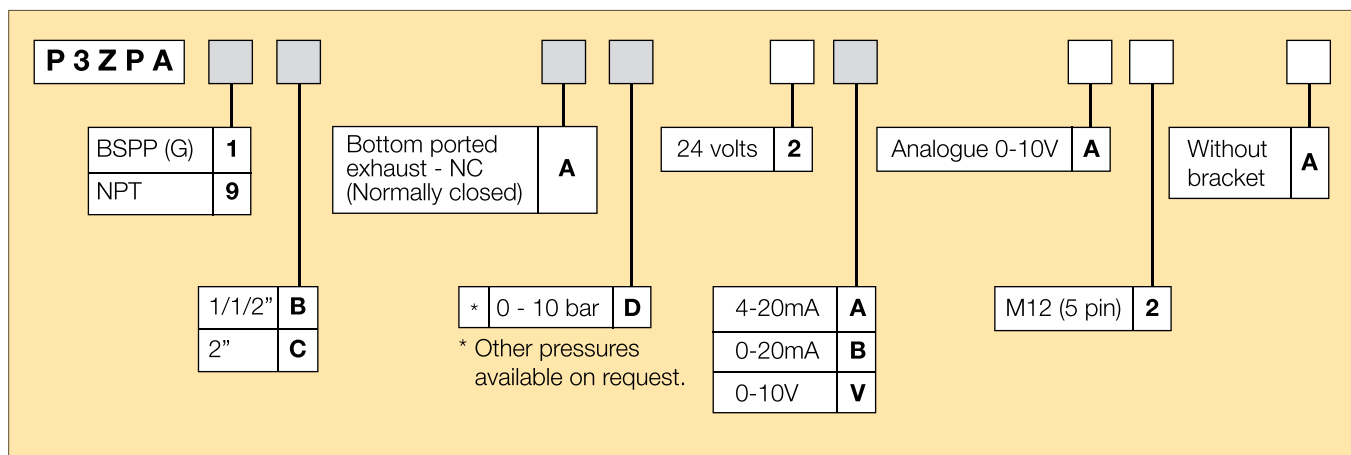
** Connection for 5-pin plug M12 x 1

P3Z Proportional Pressure Regulator



- Flanged 1-1/2" or 2" ports (BSPP & NPT)
- Accurate output pressure
- Very fast response times
- Robust die-cast aluminium construction

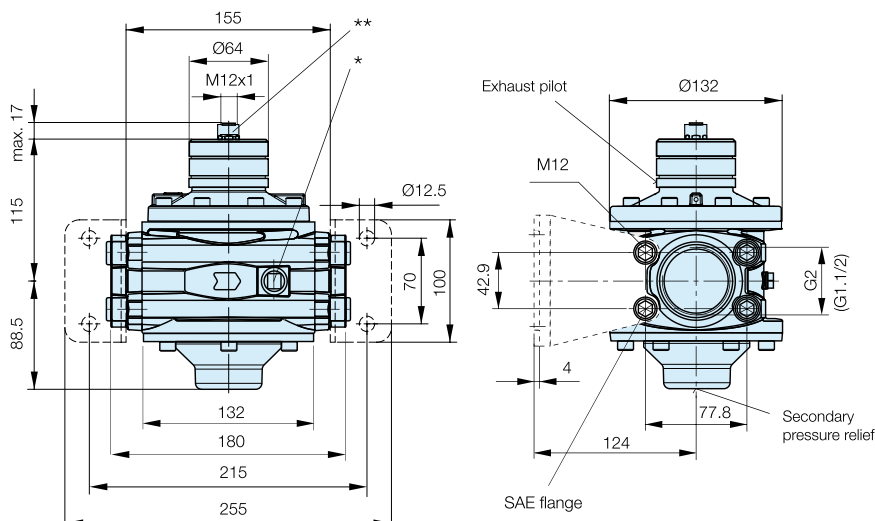
Options:



Popular options:

Port size	Description	Order Code	Control signal	Output signal	Output pressure	Weight kg
1-1/2"	Normally closed	P3ZPA1BAD2VA2A	0 - 10 V	0 - 10 V	0 - 10 bar	1.2
2"	Normally closed	P3ZPA1CAD2VA2A	0 - 10 V	0 - 10 V	0 - 10 bar	1.2

Dimensions (mm)



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

Lucifer® EPP4 Basic and Comfort 1/4" and 1/2" Technical Data

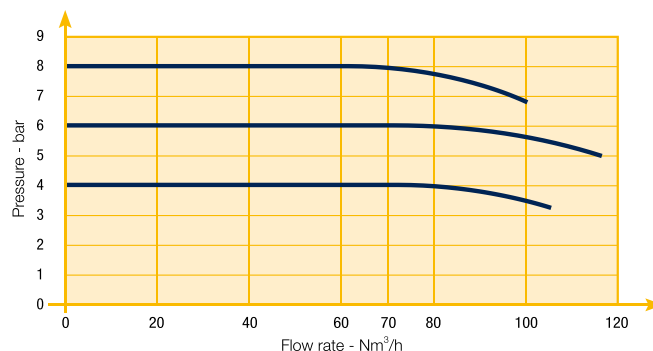
	Basic 1/4"	Basic 1/2"
Fluids:	Lubricated or non lubricated air and neutral gases Recommended filtration: 50 µm	
Temperature range:	Ambient: 0°C to +50 °C Fluid: 0°C to +50 °C	
Inlet pressure range: The inlet pressure must always be at least 1 bar above the regulated pressure.	1 to 12 bar	1 to 12 bar
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	
Max. flow: Indicative response time: With a volume of 300 cm³ at the outlet of the regulator	70 m³/h	150 m³/h
Filling 2 to 4 bar: Filling 2 to 8 bar: Emptying 4 to 2 bar: Emptying 8 to 2 bar:	50 msec 100 msec 70 msc 130 msc	60 msec 120 msec 90 msec 190 msc
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; 4 x 0.34 mm²	
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 EN 61000-6-4: 2001	
Installation and setting instructions:	See our "Notice 408038, 408014" and appendix supplied with the product.	

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

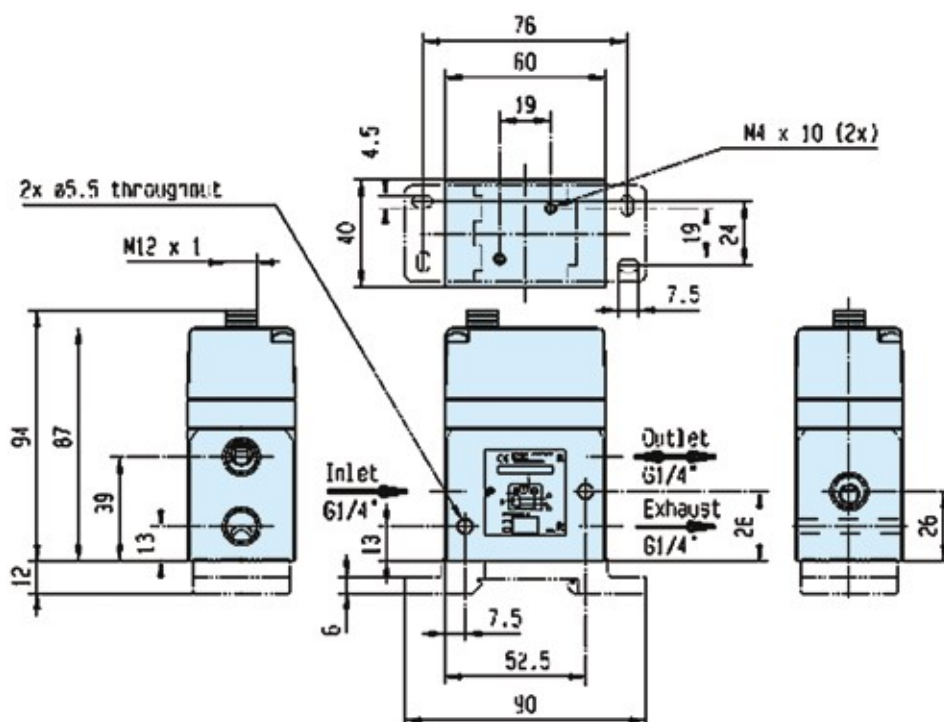
EPP4 Pressure Regulator Basic G 1/4"



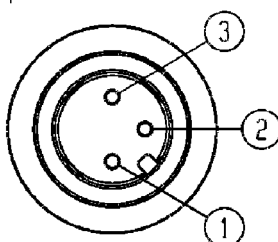
Flow Curve 1/4"



Dimensions

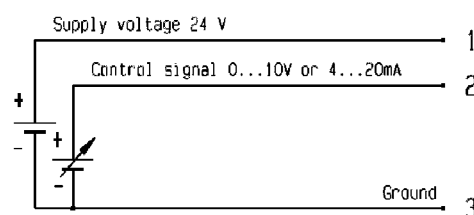


The male connector adopted on the EPP4 is a standard 4 pole M12, without the pin number 4:



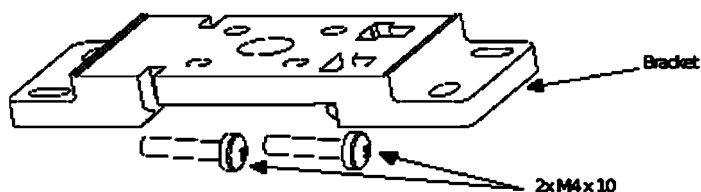
The female connector to mount is the 4 pole M12 connector (IEC 61076-2-101 model LF) where the pin number 4 is not connected.

ELECTRICAL CONNECTION



Accessories

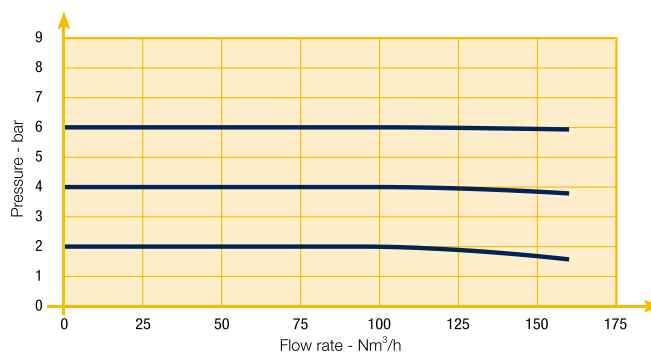
Mounting bracket
(automatically supplied with each EPP4)



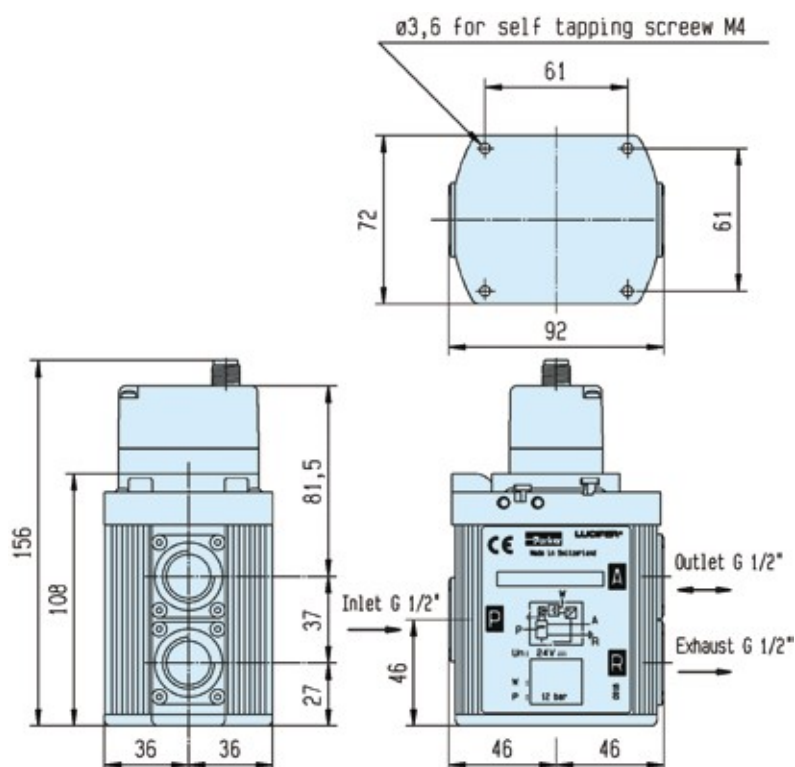
EPP4 Pressure Regulator Basic G 1/2"



Flow Curve 1/2"



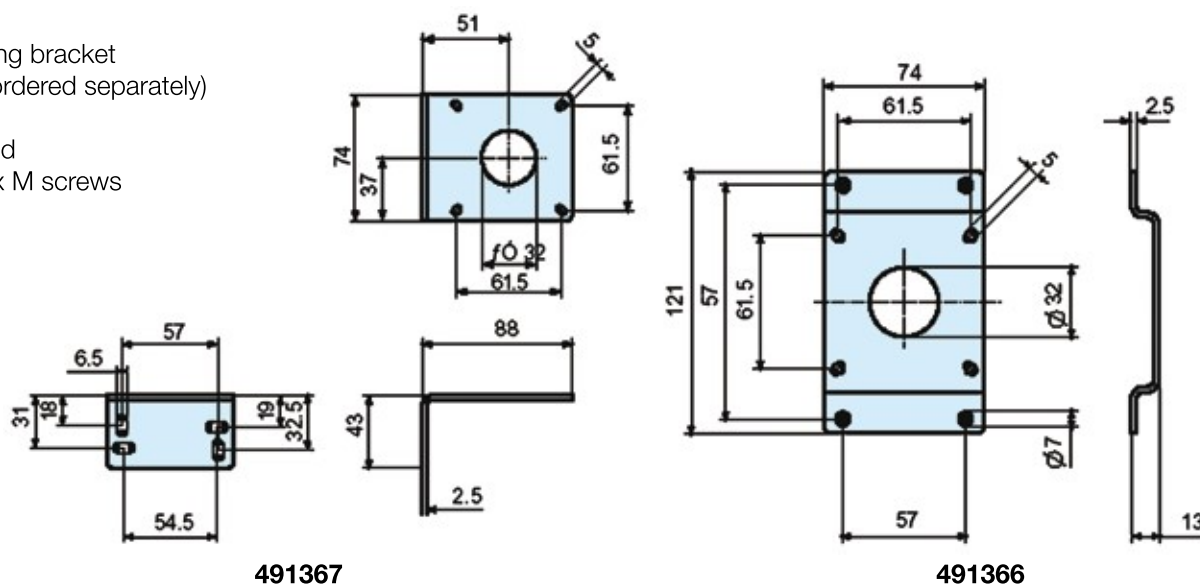
Dimensions



Accessories

Mounting bracket
(to be ordered separately)

Supplied
with 4 x M screws



EPP4 Pressure Regulator Basic

G 1/4" and G 1/2"

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

* Integrated pilot exhaust

** O₂

*** External pressure supply



Lucifer® EPP4 Comfort 1/4" and 1/2"

References

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

* Integrated pilot exhaust

** O2



Lucifer® EPP4 Comfort 1/2" High Pressure, 1" and 2" Technical Data

	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 msec	250 msec	250 msec
Emptying 8 to 2 bar:	190 msec	400 msec	400 msec
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.

Lucifer® EPP4 Comfort Options

Calys Software

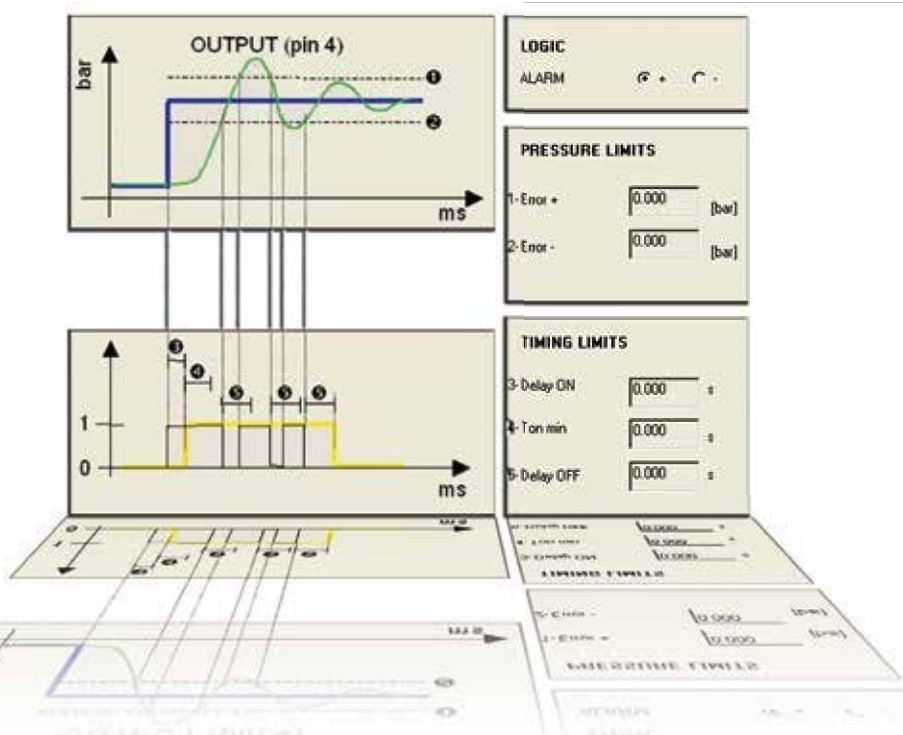
Calys is a unique software in house developed to configurate all the parameters of the EPP4 Comfort range. Calys is an option of the EPP4. A specific cable is needed for the communication between the EPP4 and a PC.



Calys offers the following features:

- 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)

calys



**Specific communication
cable PC-EPP4 with RS232
and USB connection**

Order Reference 496449

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

Lucifer® EPP4 Comfort 1/2" HP, 1" and 2"

References

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

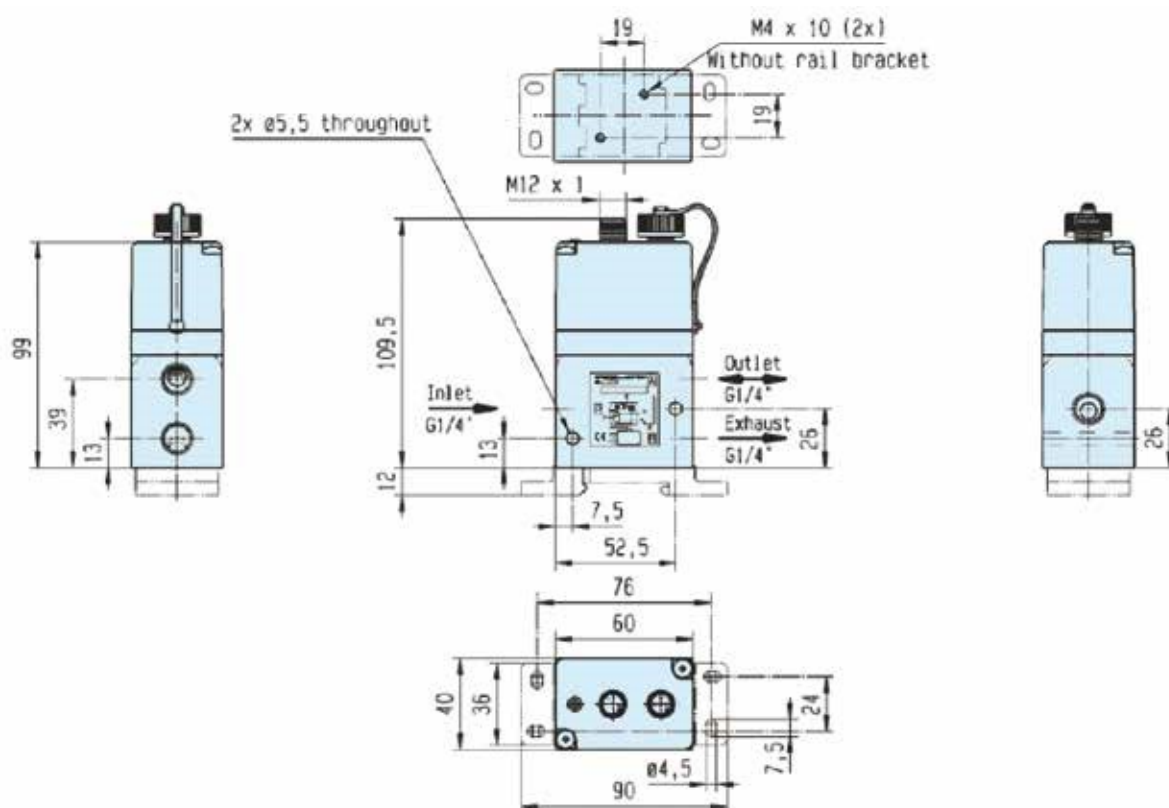
Other specific settings or specialties are available, please contact us.



Lucifer® EPP4 Comfort Range 1/4"

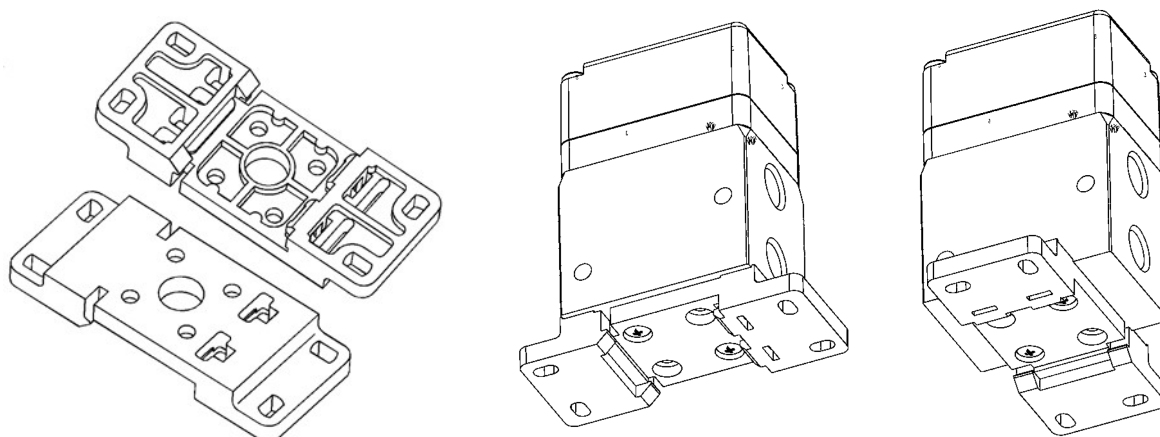


Dimensions



Accessories

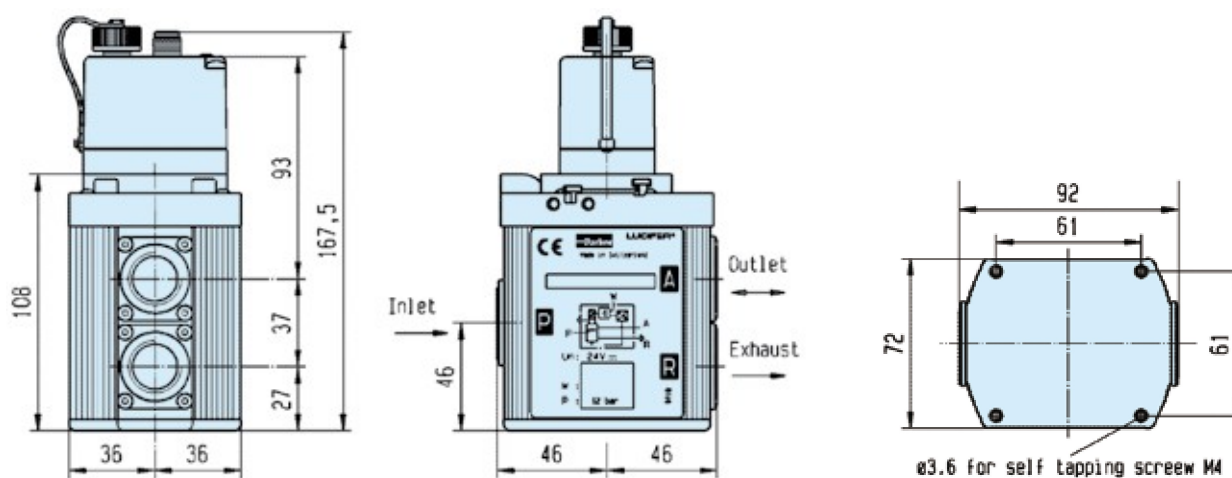
Mounting bracket
(supplied as a standard with each Lucifer® EPP4 1/4")



Lucifer® EPP4 Comfort Range 1/2"

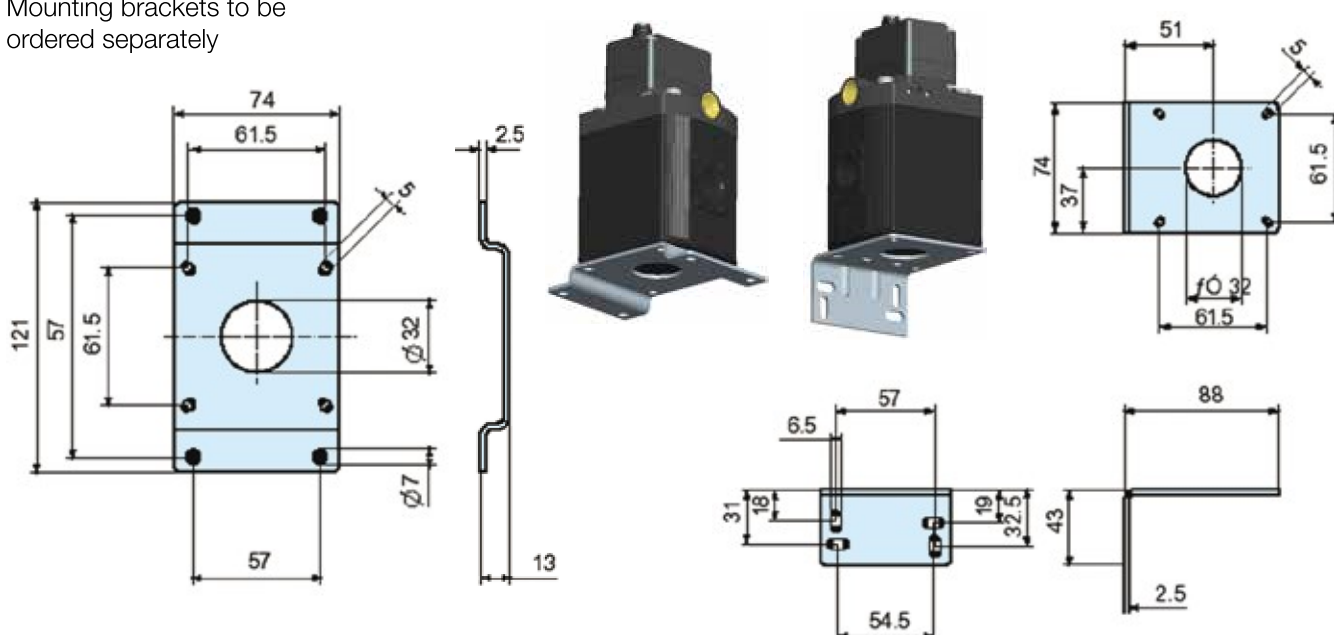


Dimensions



Accessories

Mounting brackets to be ordered separately



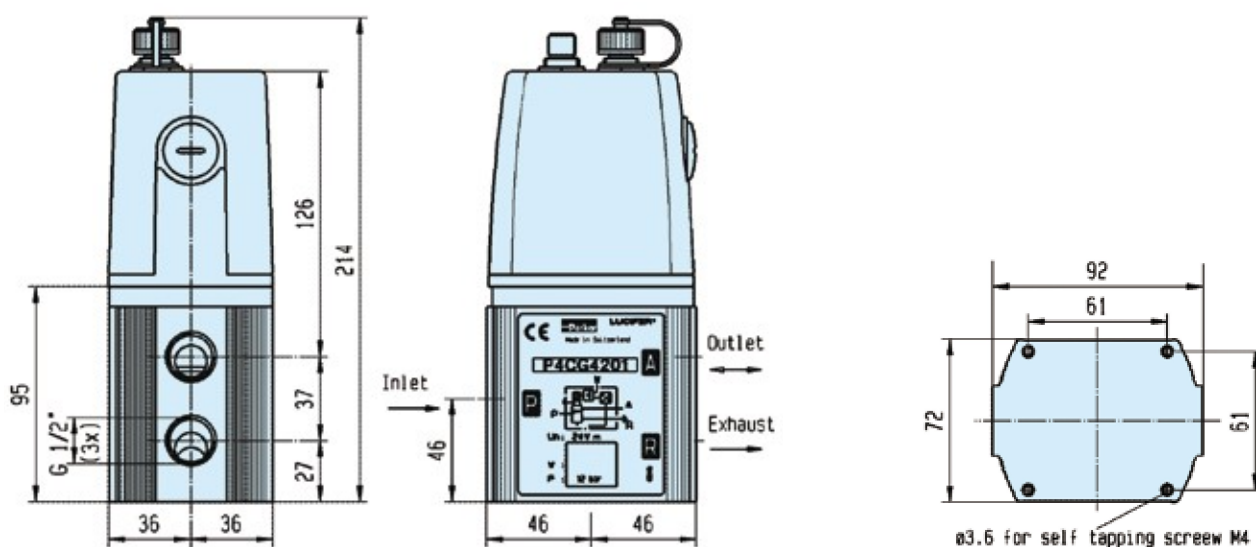
Order reference 491366

Order reference 491367

Lucifer® EPP4 Comfort Range 1/2"
High Pressure 21 bar

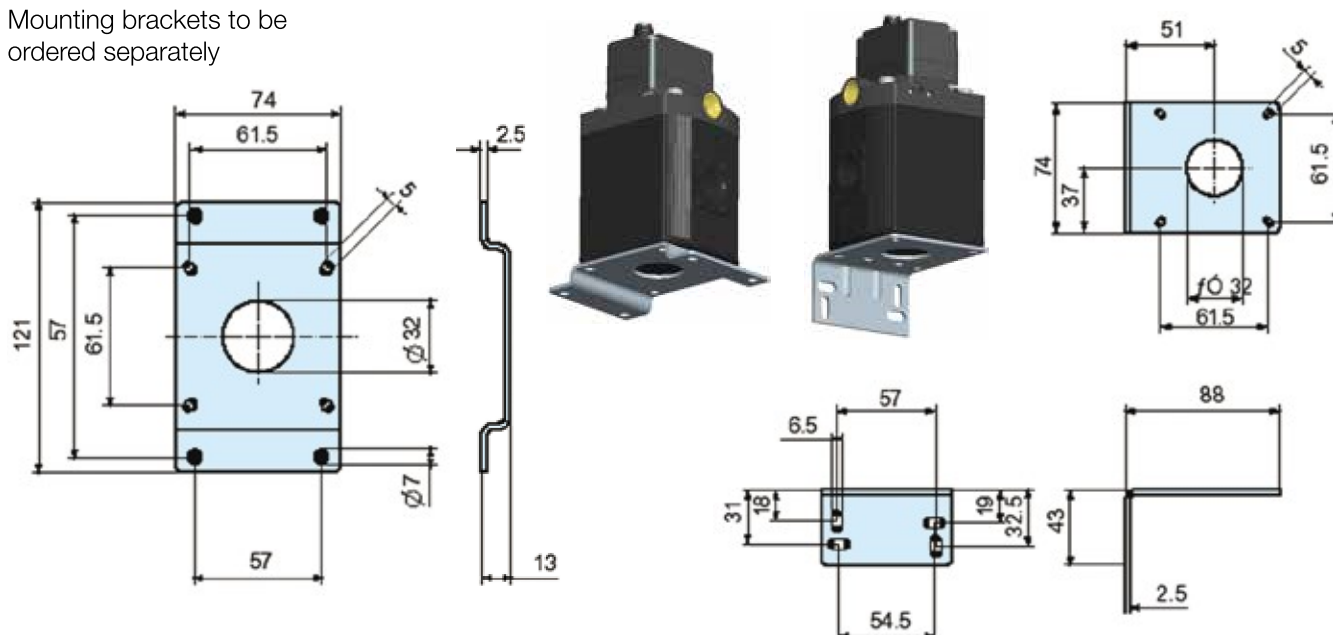


Dimensions



Accessories

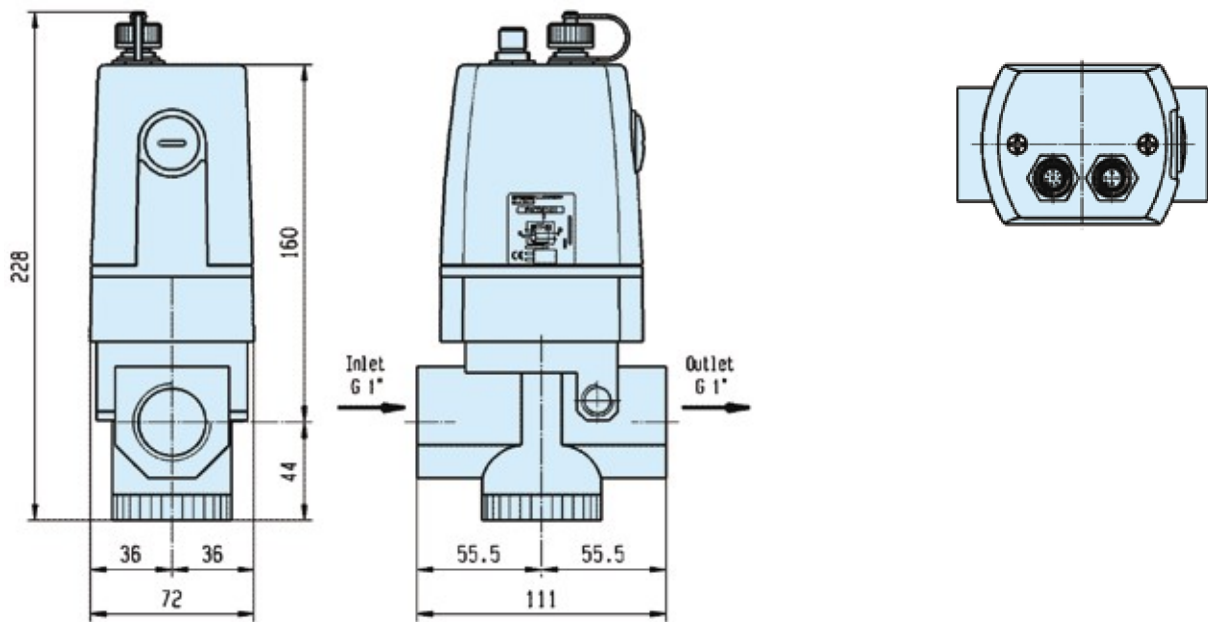
Mounting brackets to be ordered separately

**Order reference 491366****Order reference 491367**

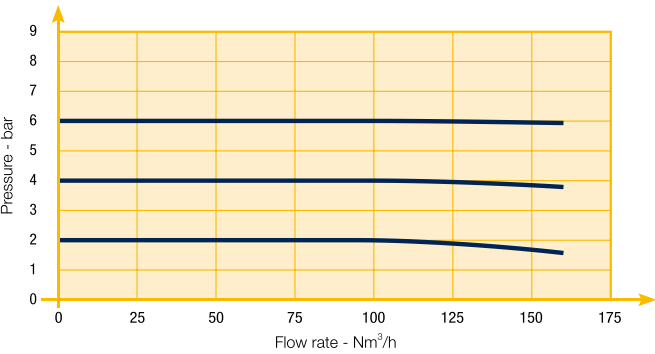
Lucifer® EPP4 Comfort Range 1"



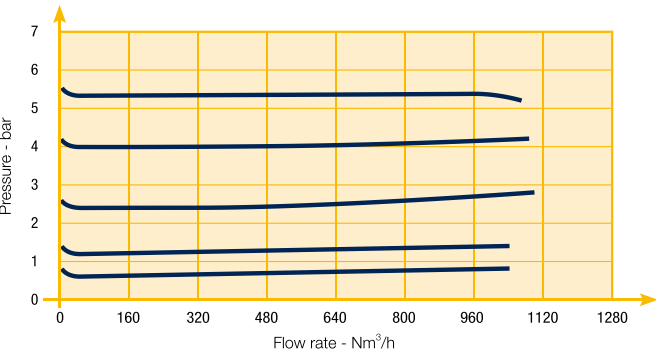
Dimensions



Flow Curve 1/2"



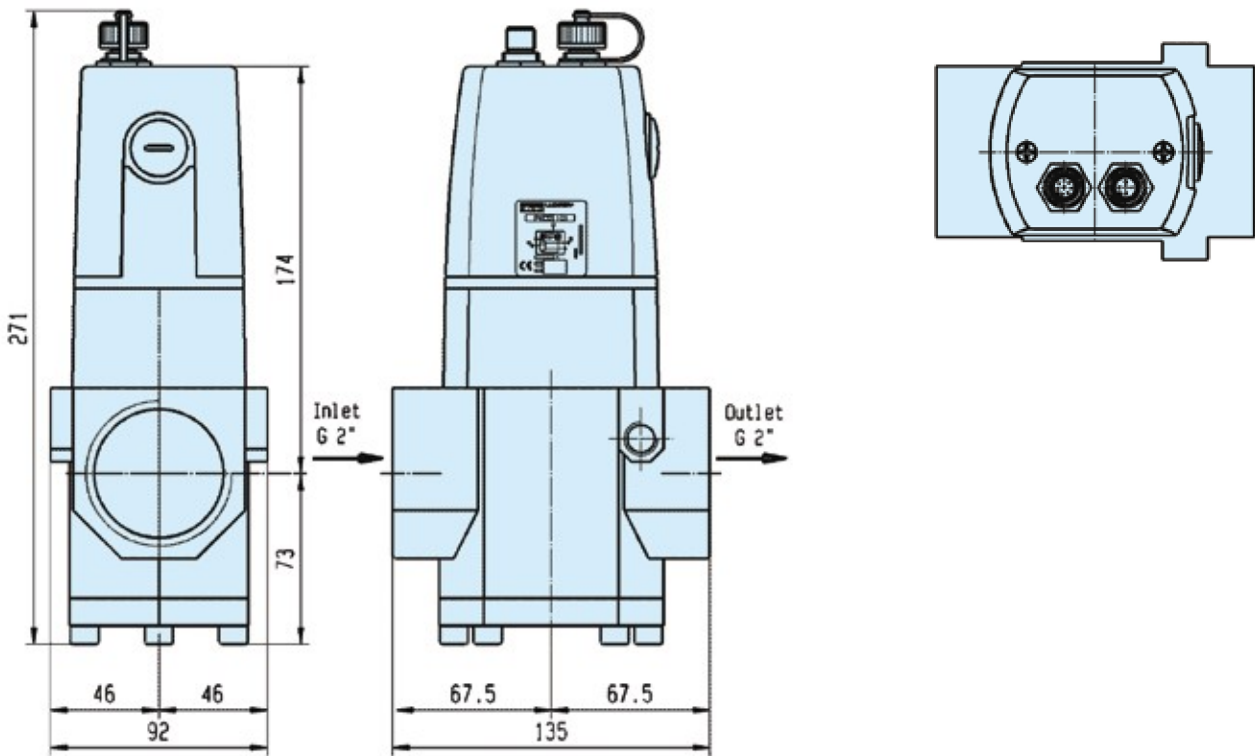
Flow Curve 1"



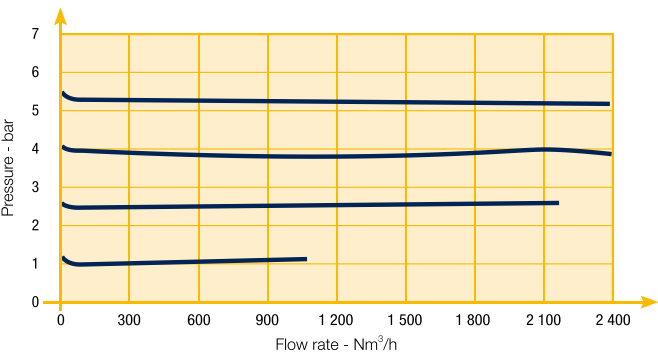
Lucifer® EPP4 Comfort Range 2"



Dimensions



Flow Curve 2"

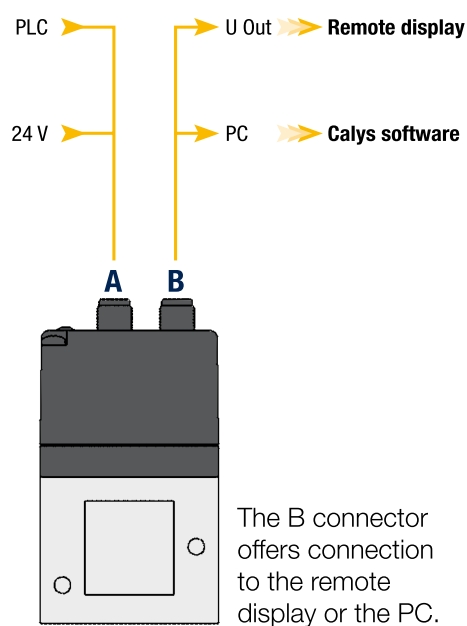


Lucifer® EPP4 Comfort Options

Additional Features

The EPP4 Comfort offers two main options - a remote display and a software to easily set the regulator's parameters.

These are the key feature options for a comfortable use.



- A remote display connected to the pressure regulator offers flexible monitoring.
- A panel mounting kit is available to install the remote display.
- Calys is an easy-to-use software package designed to allow the user to match their regulators performance directly to their specific application.
- A power supply and control signal cable.

Lucifer® EPP4 Comfort 1/4" & 1/2"

Technical Data

	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:	With a volume of 330 cm³ at the outlet of the regulator	
Filling 2 to 4 bar :	50 msec	60 msec
Filling 2 to 8 bar:	100 msec	120 msec
Emptying 4 to 2 bar:	70 msc	90 msec
Emptying 8 to 2 bar:	130 msc	190 msc
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.	

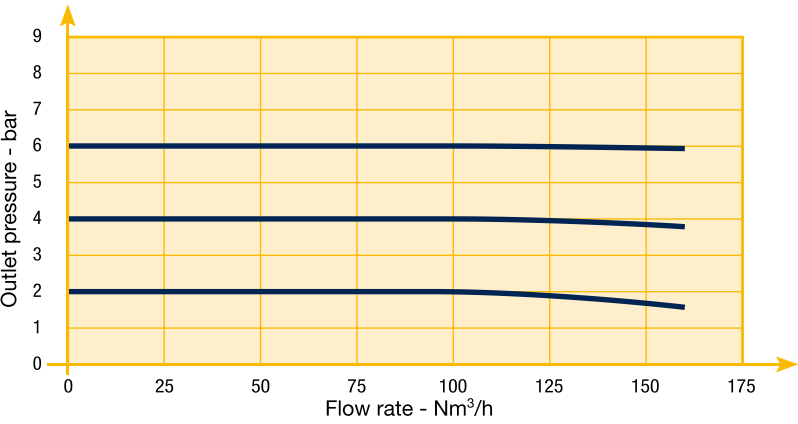
Note: Parker reserves the right to change specifications without notification.

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

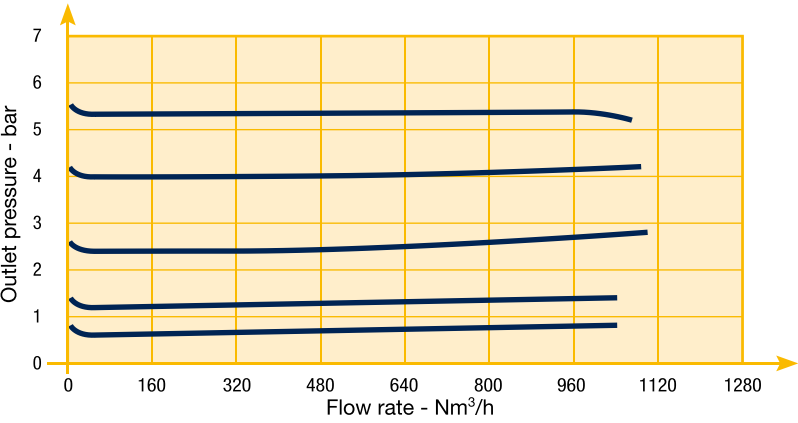


Flow Curves

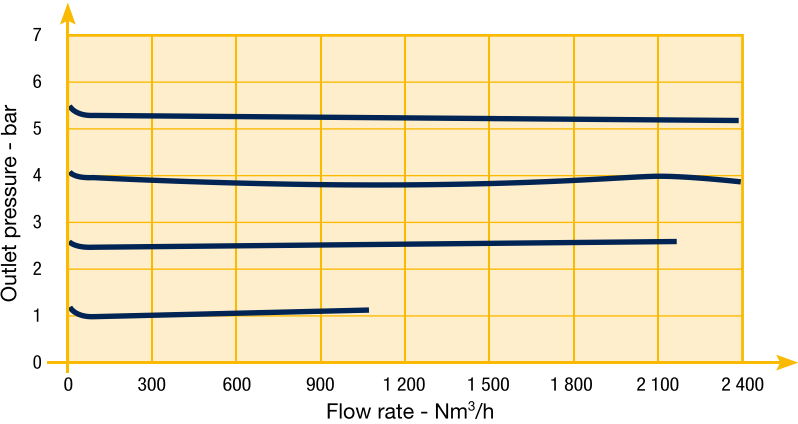
Flow Curve 1/2"



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

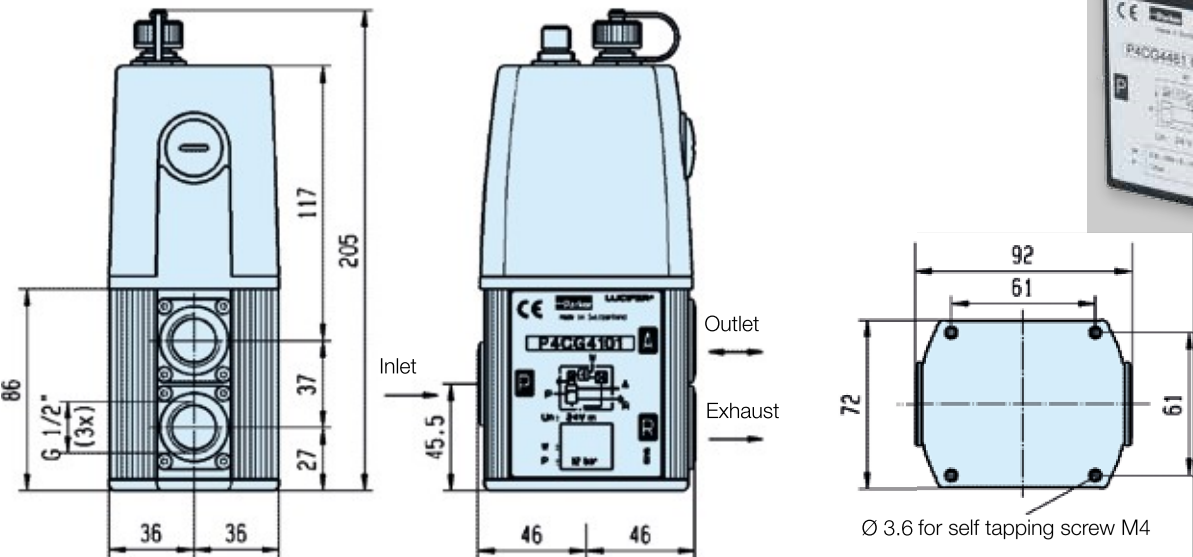
Other specific settings or specialties are available, please contact us.



Lucifer® EPP4 Comfort
1/2" ATEX



Dimensions (mm)



Drawing 9

Lucifer® EPP4 Comfort
1" & 2" ATEX



References

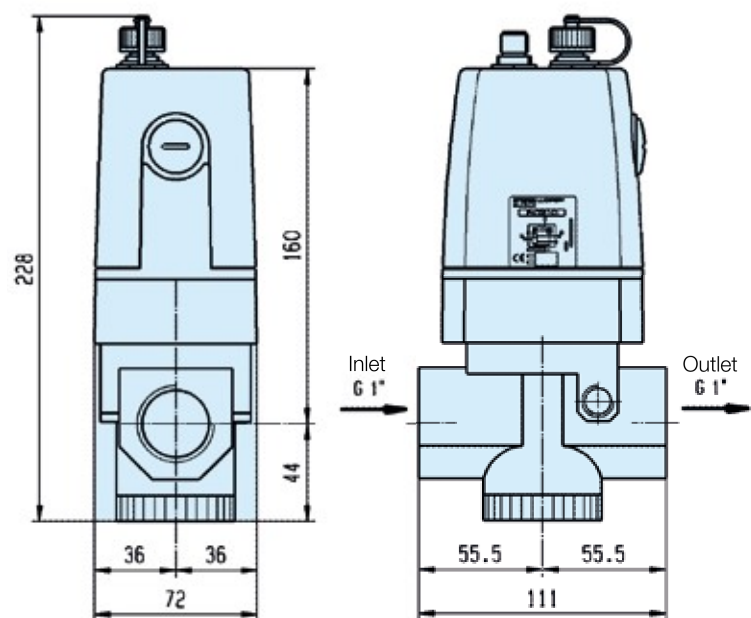
Codes	Pipe	Max inlet pressure (bar)	Pressure range (bar)		Control signal (see options)	Dimensional Drawing
P4CG6161C001	G1	12	0	10	0-10 V	11
P4CG6161C002	G1	12	0	10	4-20 mA	11
P4CG9161C001	G2	12	0	10	0-10 V	12
P4CG9161C002	G2	12	0	10	4-20 mA	12

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

Lucifer® EPP4 Comfort
1" & 2" ATEX

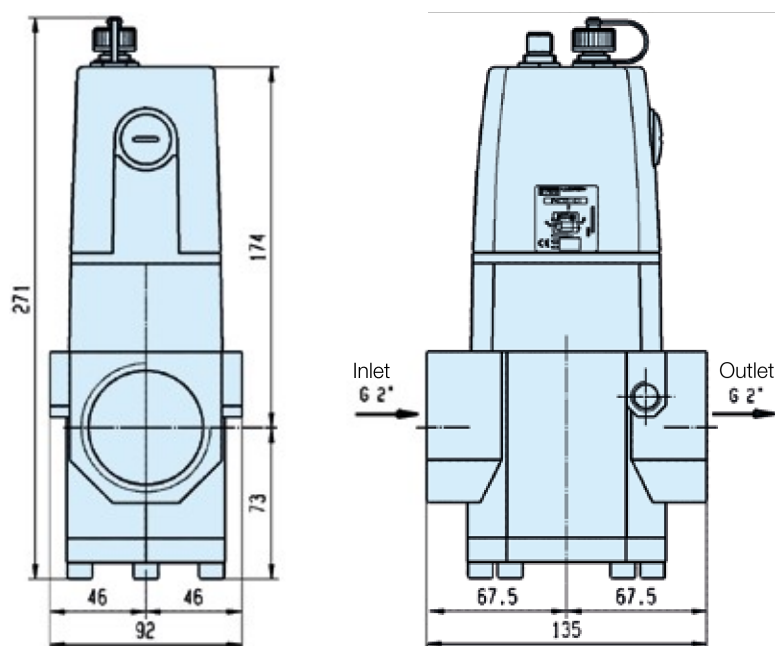


Dimensions (mm) - EPP4 Comfort Range 1"



Drawing 11

Dimensions (mm) - EPP4 Comfort Range 2"



Drawing 12