

- 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

1	A
----------	----------

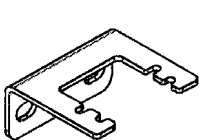
* When the supply voltage is lost the unit will automatically exhaust the regulated pressure to 0 bar (atmospheric pressure)

- 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.

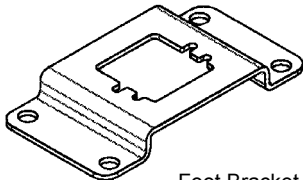
Note: On all analogue outputs the F.S. value can be adjusted by means of parameter 8

P31P Mounting brackets

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



L-Bracket



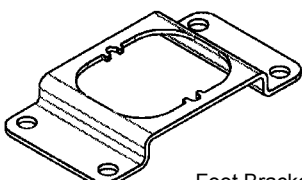
Foot Bracket

P32P Mounting brackets

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



L-Bracket



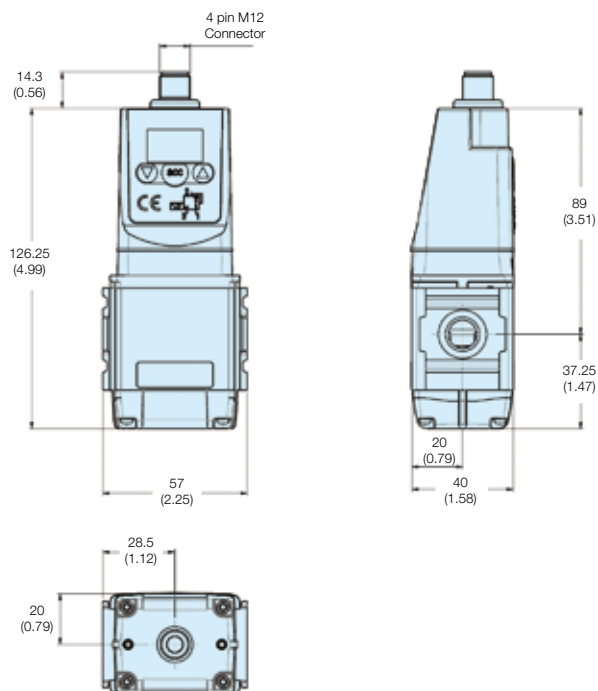
Foot Bracket

Cables

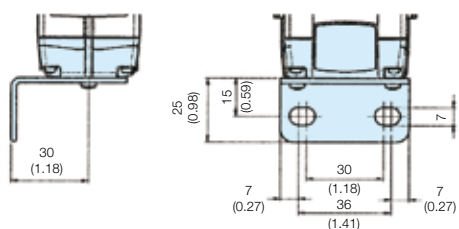
Order Code	Description
P8L-MC04A2A-M12	2 mtr. cable with moulded straight M12x1 connector
P8L-MC04R2A-M12	2 mtr. cable with moulded 90 degree M12x1 connector.

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

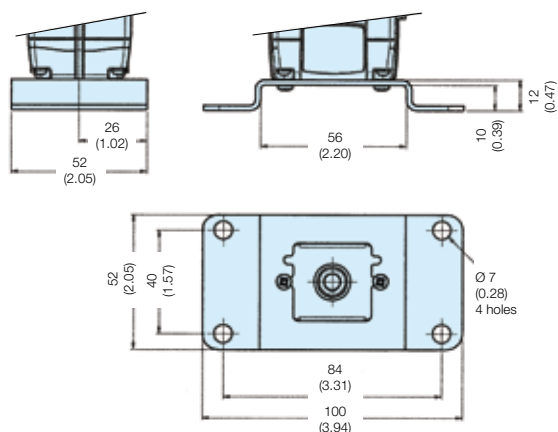
P31P



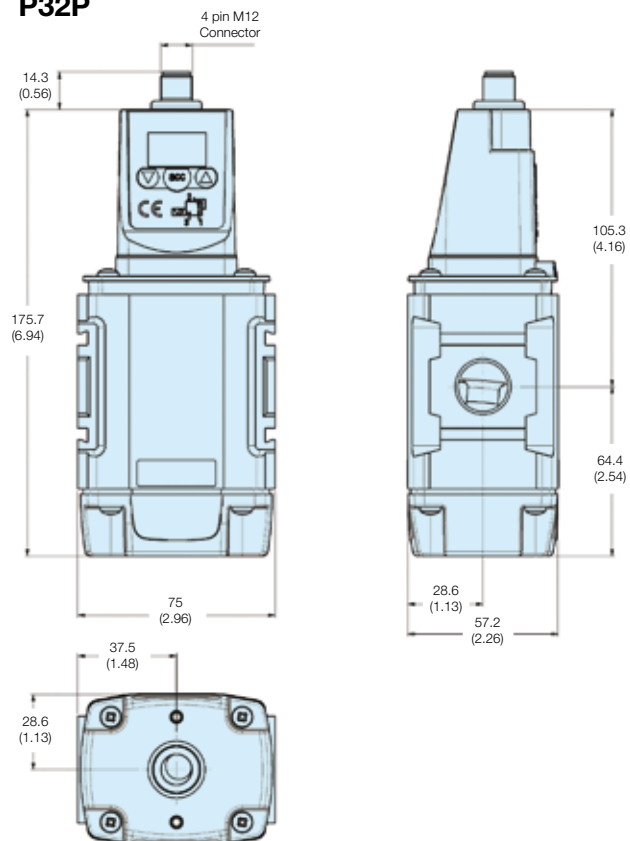
L-Bracket



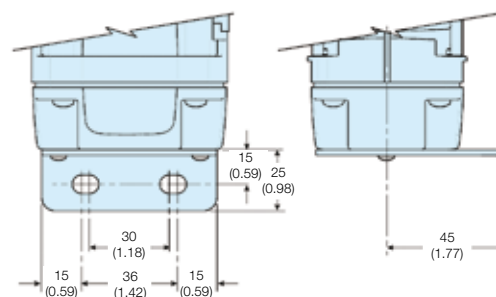
Foot Bracket



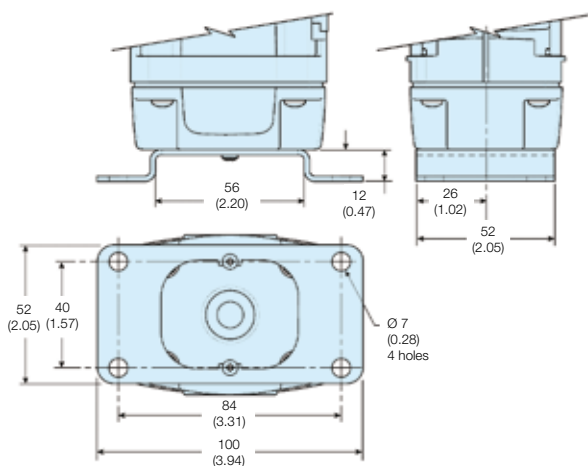
P32P



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
----------------	----------

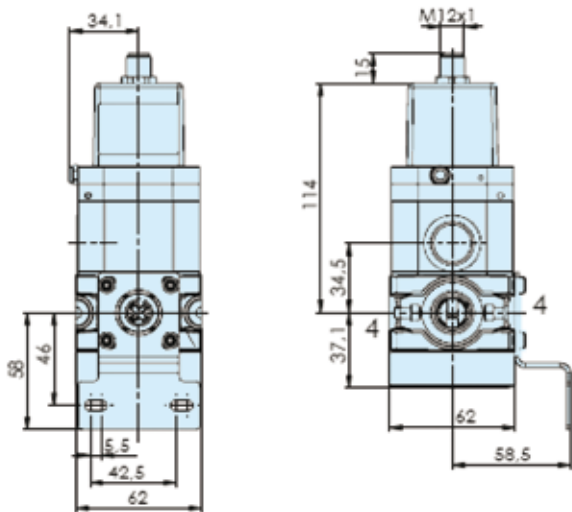
M12 (5 pin)	2
-------------	----------

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)



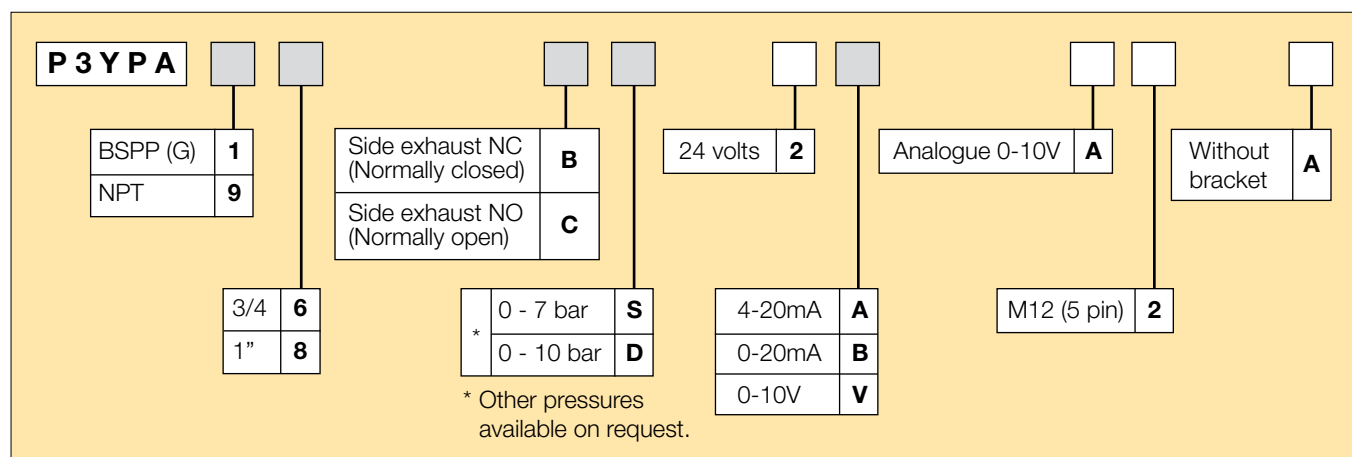
- * Two opposite gauge ports G1/4, plug screw mounted
- ** Connection for 5-pin plug M12 x 1
- *** Exhaust port 1/2”

P3Y Proportional Pressure Regulator



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

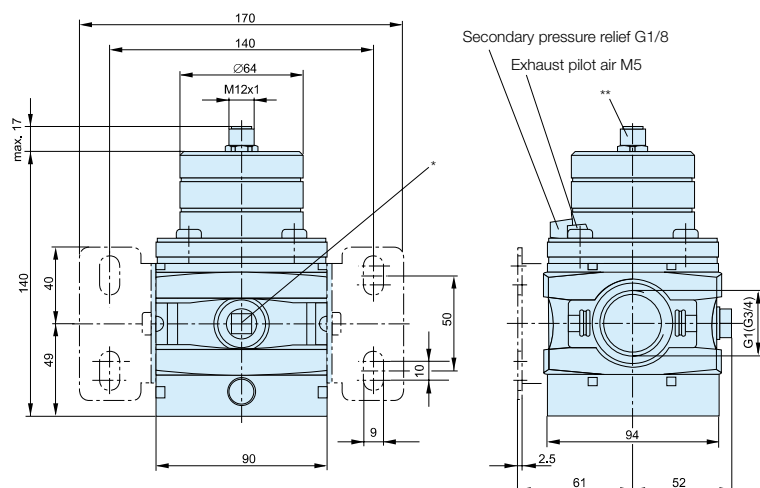
Options:



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:

P 3 Z P A

BSPP (G)

1

NPT

9

Bottom ported exhaust - NC (Normally closed)

A

1/1/2"

B

2"

C

* 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

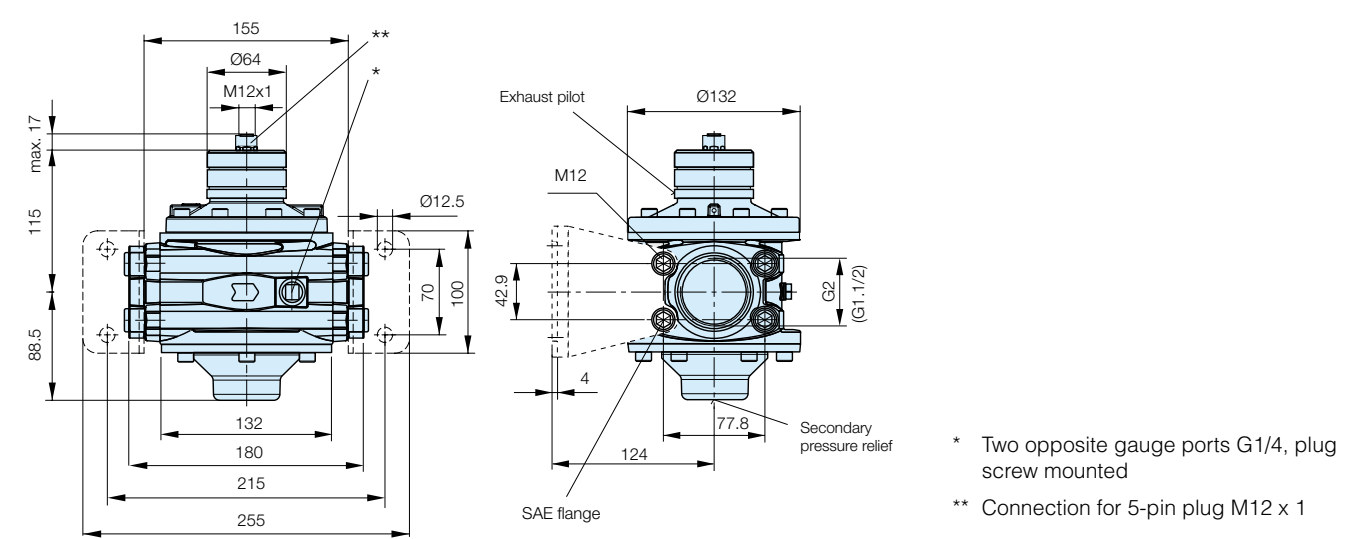
Without bracket

A

Popular options:

Port size	Description	Order Code	Control signal	Output signal	Output pressure	Weight kg
1-1/2"	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)



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

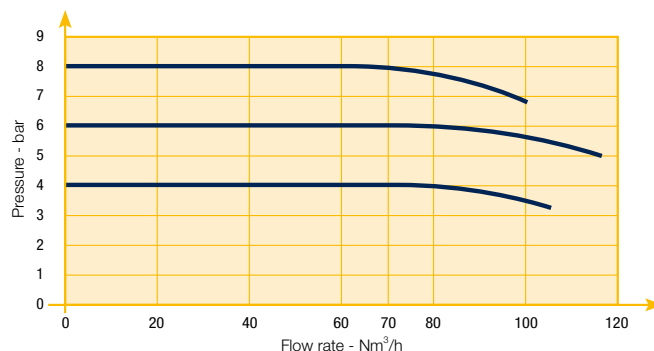
	Basic 1/4"	Basic 1/2"
Fluids:	Lubricated or non lubricated air and neutral gases Recommended filtration: 50 µm	
Temperature range:	Ambient: 0°C to +50 °C Fluid: 0°C to +50 °C	
Inlet pressure range: The inlet pressure must always be at least 1 bar above the regulated pressure.	1 to 12 bar	1 to 12 bar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

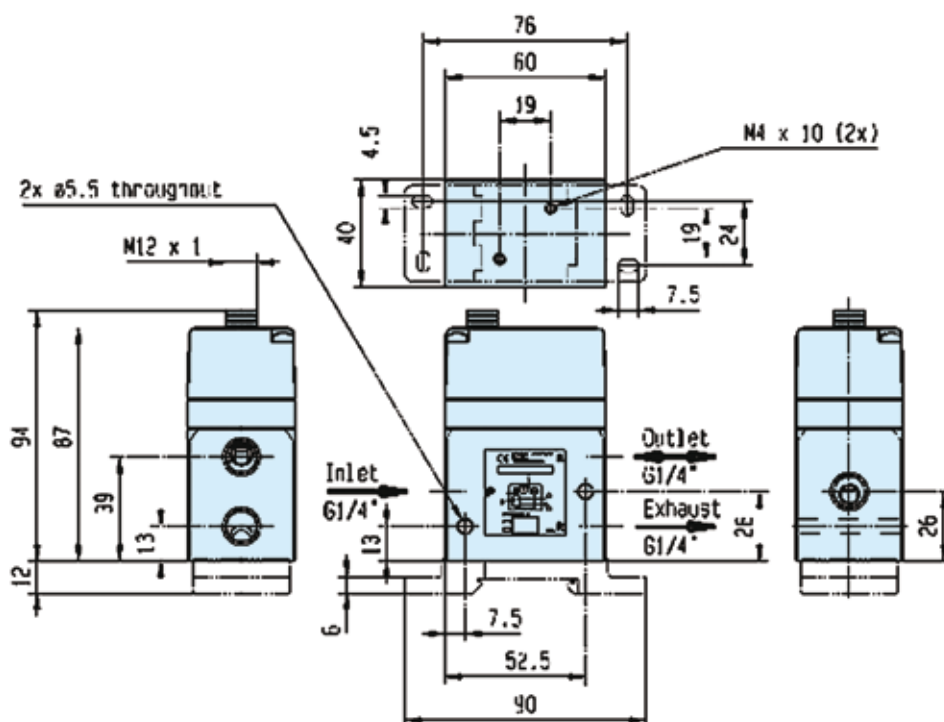
EPP4 Pressure Regulator Basic G 1/4"



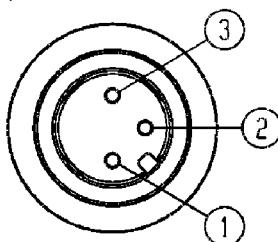
Flow Curve 1/4"



Dimensions

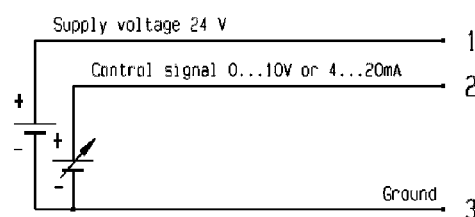


The male connector adopted on the EPP4 is a standard 4 pole M12, without the pin number 4:



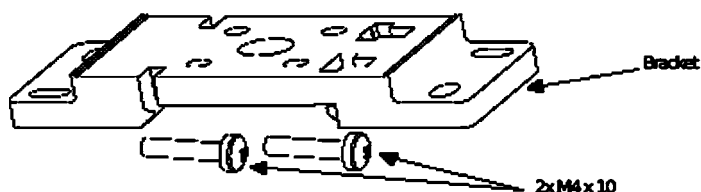
The female connector to mount is the 4 pole M12 connector (IEC 61076-2-101 model LF) where the pin number 4 is not connected.

ELECTRICAL CONNECTION



Accessories

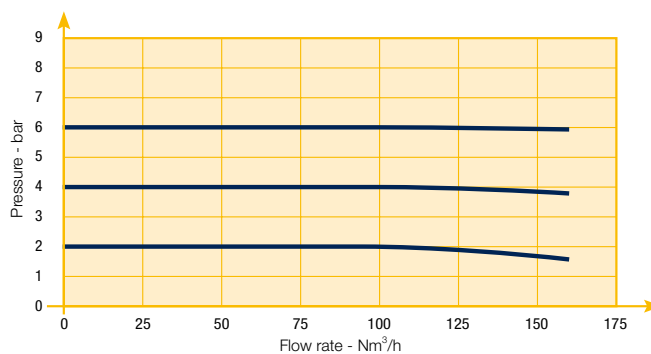
Mounting bracket
(automatically supplied with each EPP4)



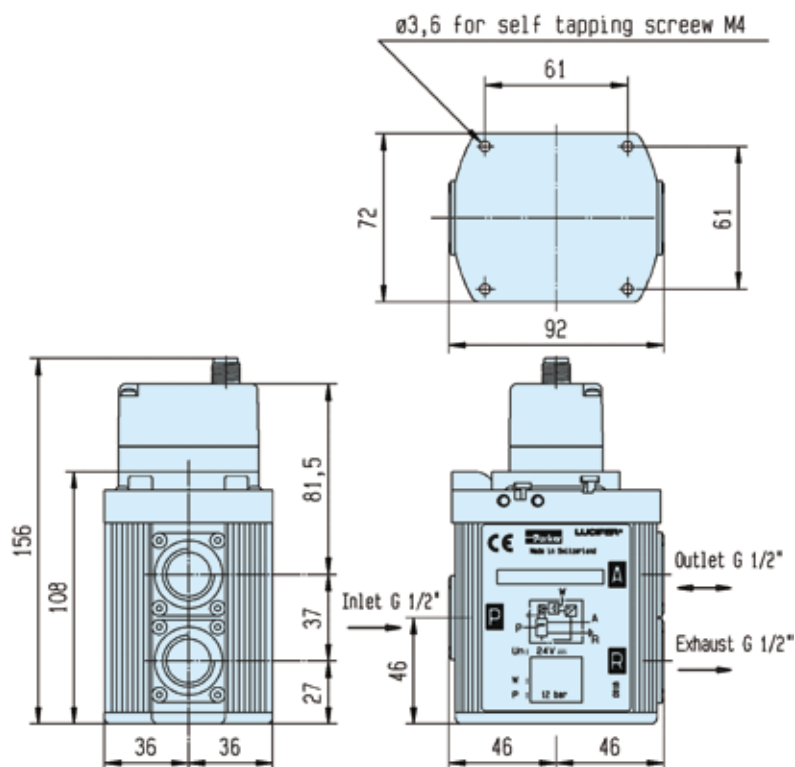
EPP4 Pressure Regulator Basic G 1/2"



Flow Curve 1/2"



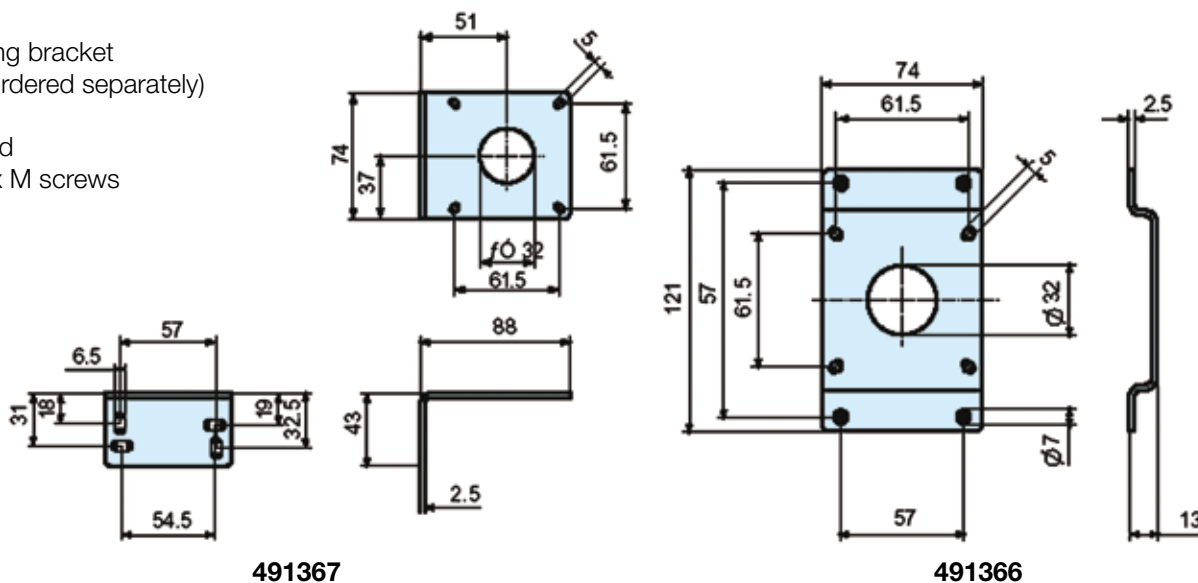
Dimensions



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

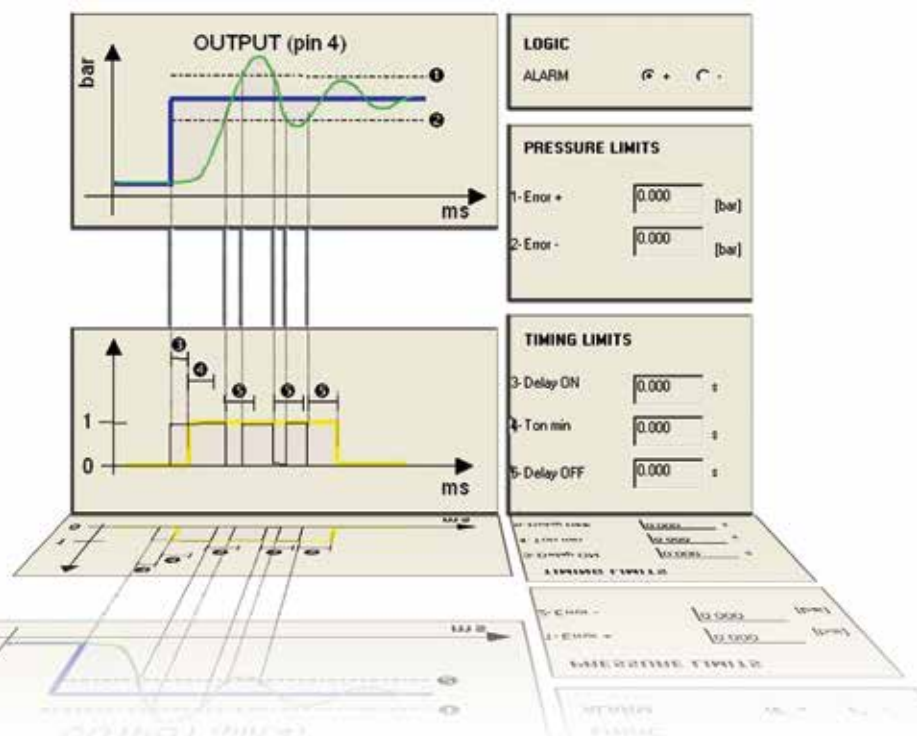
Calys is a unique software in house developed to configurate all the parameters of the EPP4 Comfort range. Calys is an option of the EPP4. A specific cable is needed for the communication between the EPP4 and a PC.



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

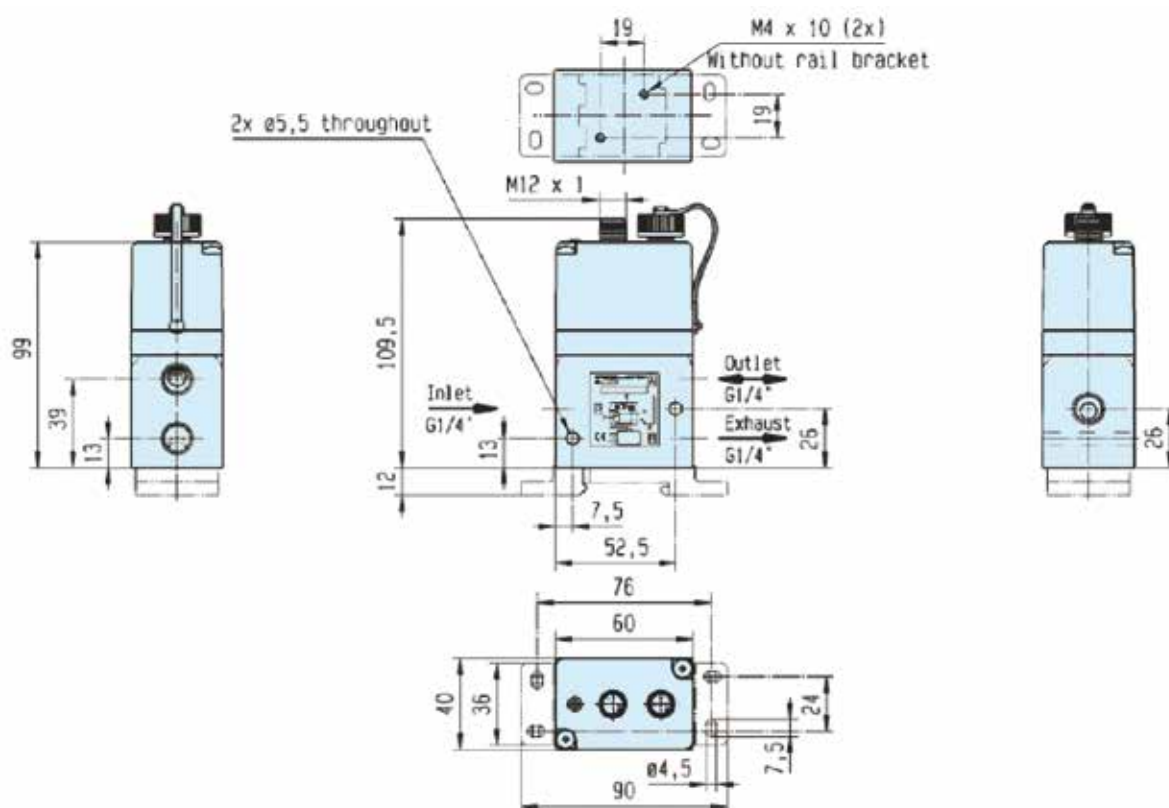
Other specific settings or specialties are available, please contact us.



Lucifer® EPP4 Comfort Range 1/4"

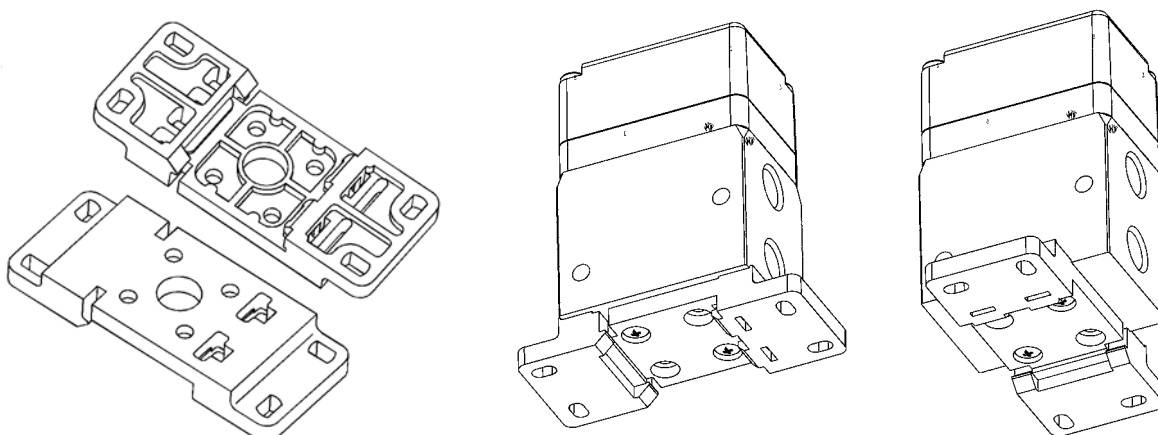


Dimensions



Accessories

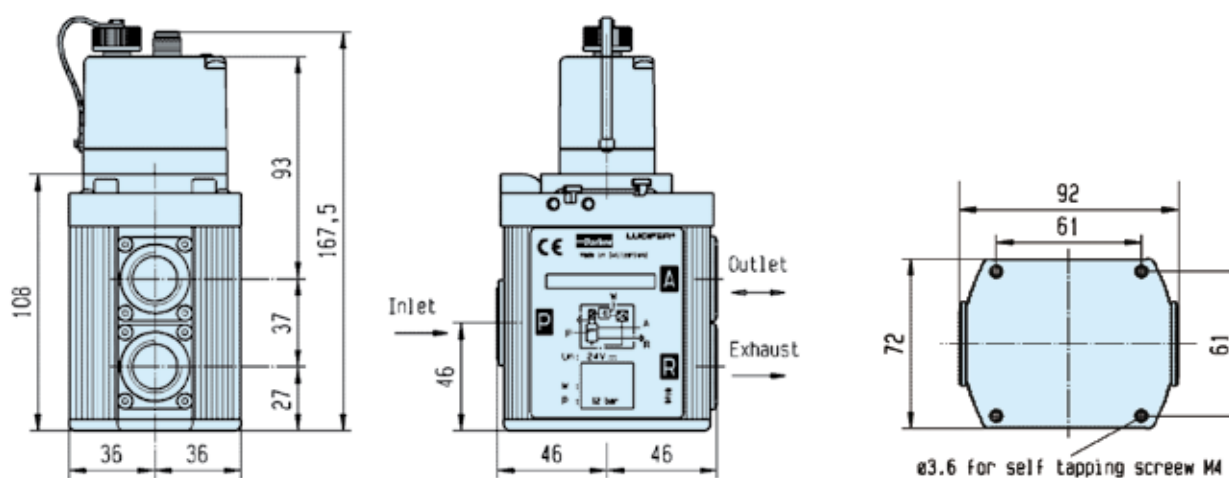
Mounting bracket
(supplied as a standard with each Lucifer® EPP4 1/4")



Lucifer® EPP4 Comfort Range 1/2"

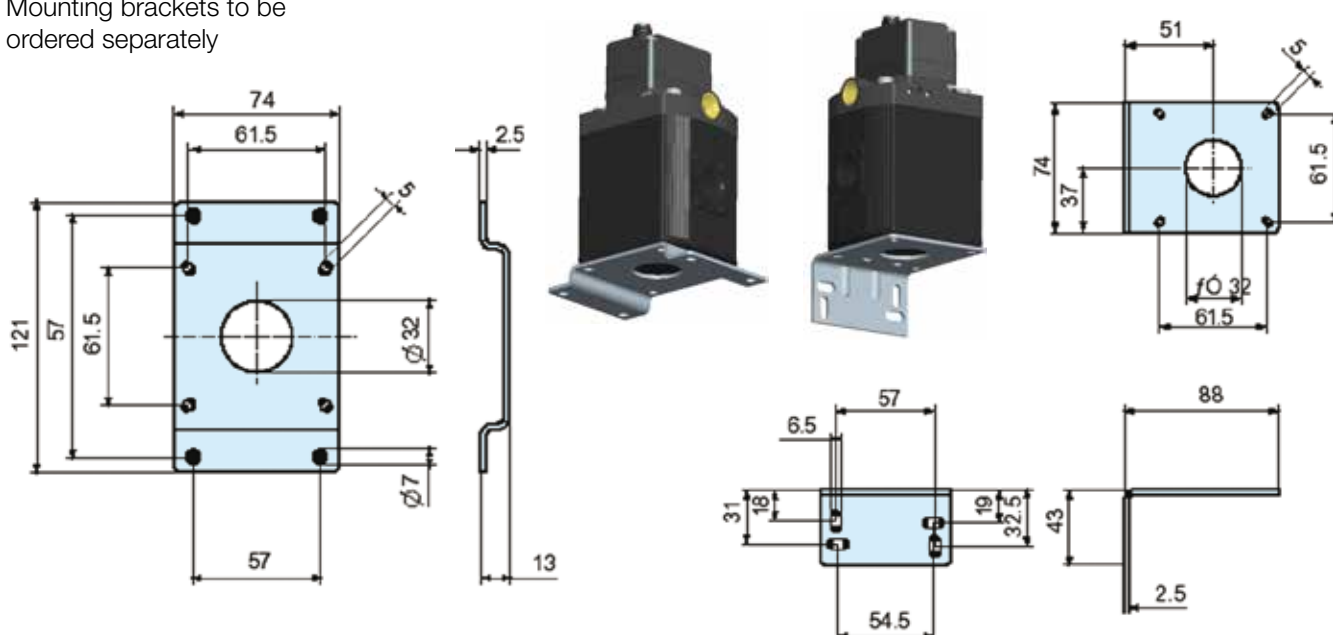


Dimensions



Accessories

Mounting brackets to be ordered separately



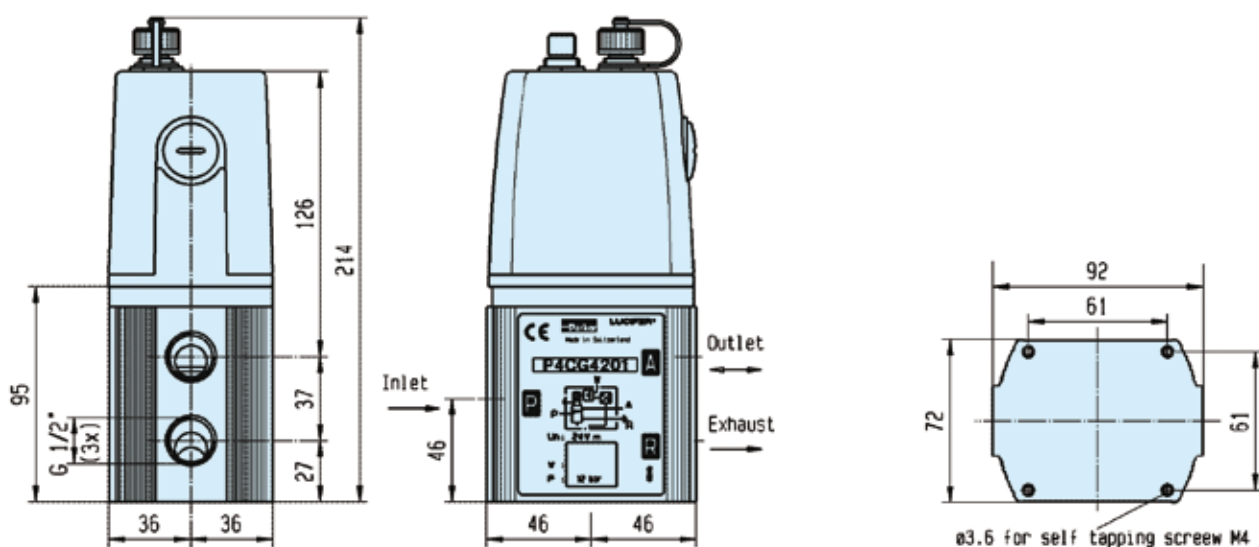
Order reference 491366

Order reference 491367

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

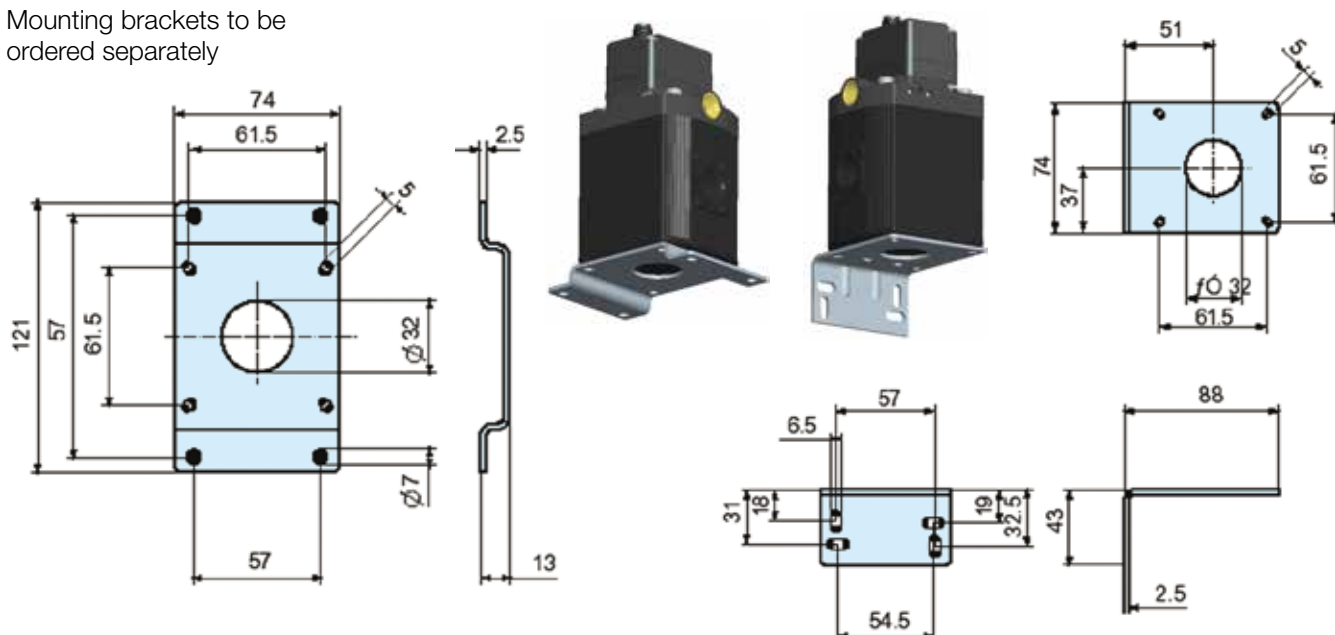


Dimensions



Accessories

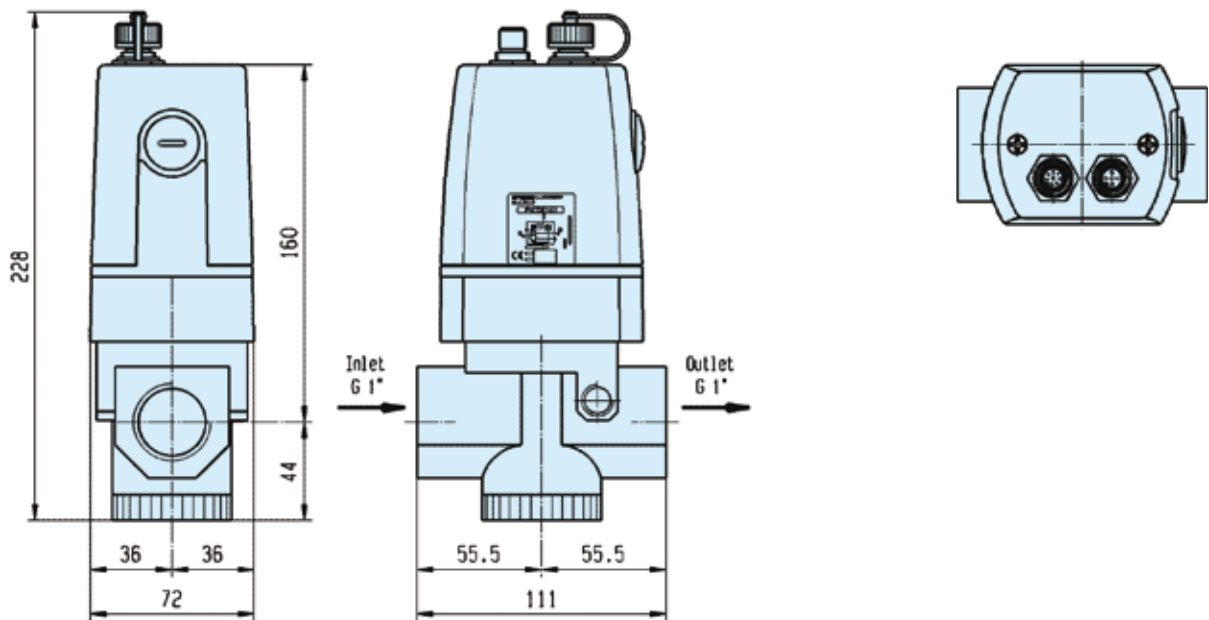
Mounting brackets to be ordered separately

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

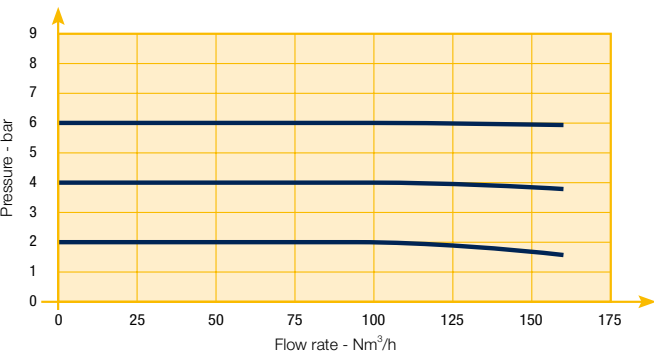
Lucifer® EPP4 Comfort Range 1"



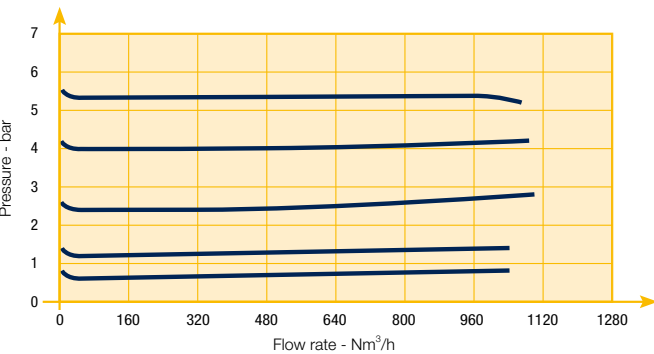
Dimensions



Flow Curve 1/2"



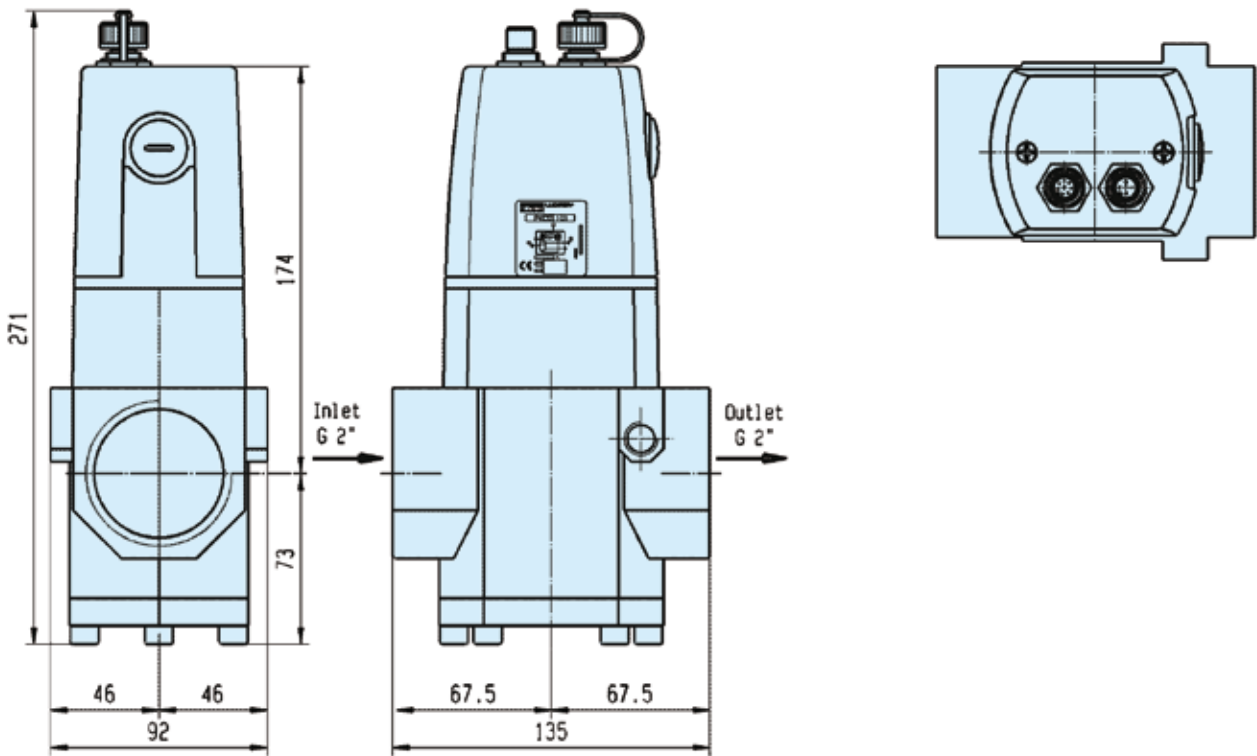
Flow Curve 1"



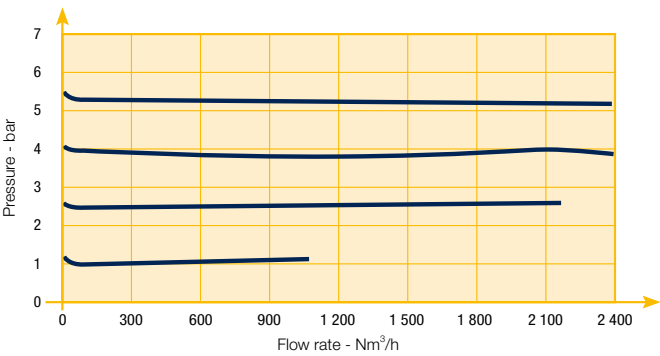
Lucifer® EPP4 Comfort Range 2"



Dimensions



Flow Curve 2"

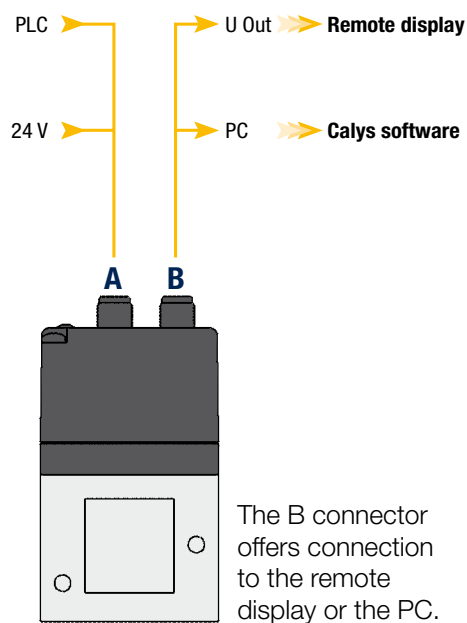


Lucifer® EPP4 Comfort Options

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.	

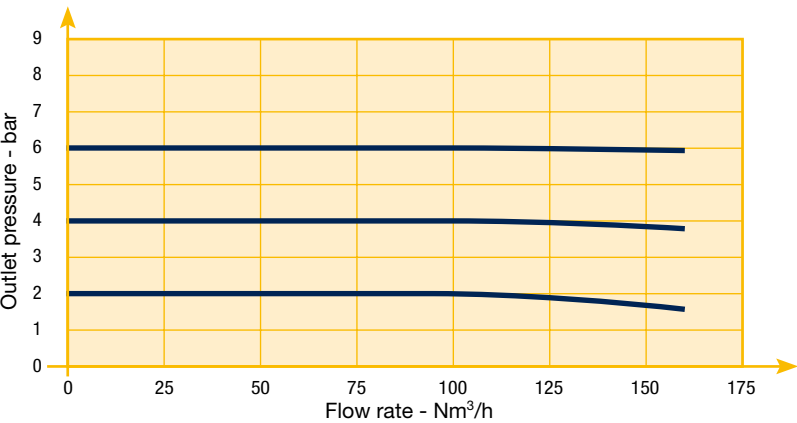
Note: Parker reserves the right to change specifications without notification.

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

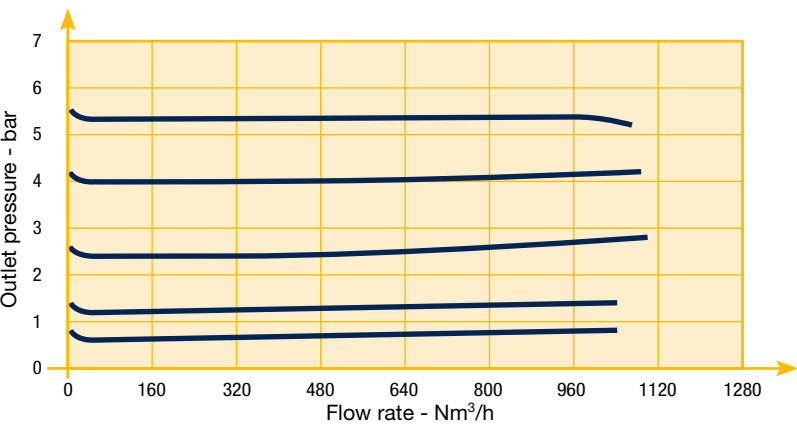


Flow Curves

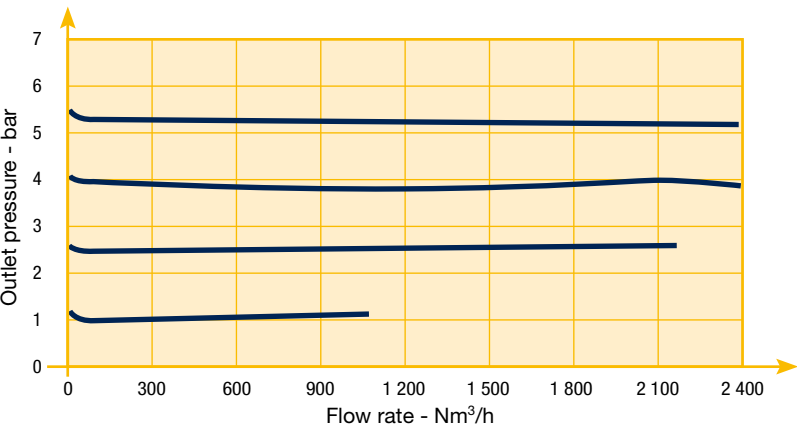
Flow Curve 1/2"



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

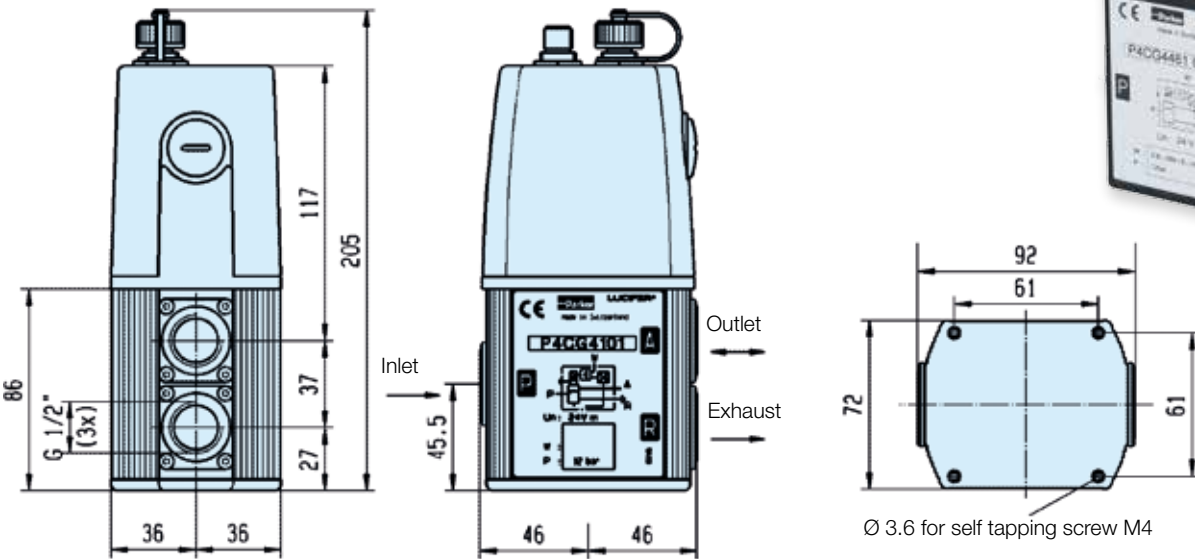
Other specific settings or specialties are available, please contact us.



Lucifer® EPP4 Comfort
1/2" ATEX



Dimensions (mm)



Drawing 9

Lucifer® EPP4 Comfort
1" & 2" ATEX



References

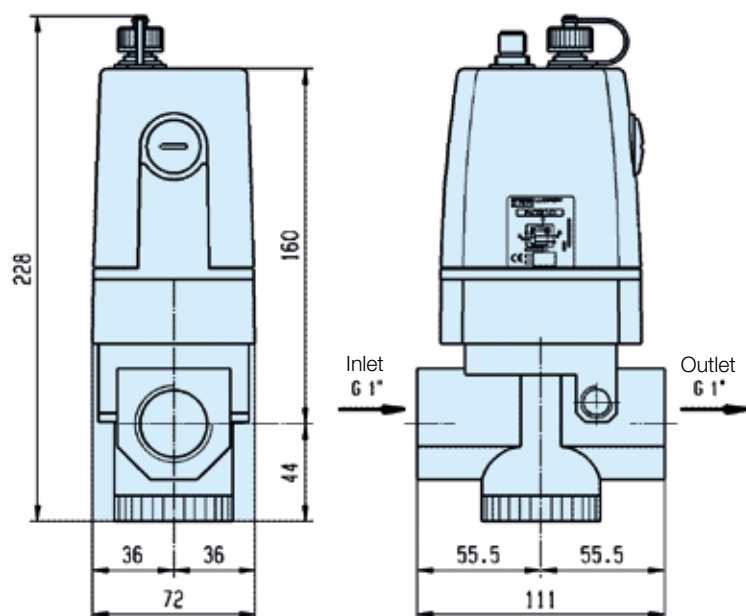
Codes	Pipe	Max inlet pressure (bar)	Pressure range (bar)		Control signal (see options)	Dimensional Drawing
P4CG6161C001	G1	12	0	10	0-10 V	11
P4CG6161C002	G1	12	0	10	4-20 mA	11
P4CG9161C001	G2	12	0	10	0-10 V	12
P4CG9161C002	G2	12	0	10	4-20 mA	12

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

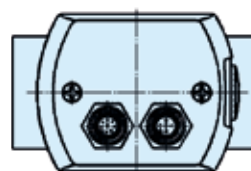
Lucifer® EPP4 Comfort 1" & 2" ATEX



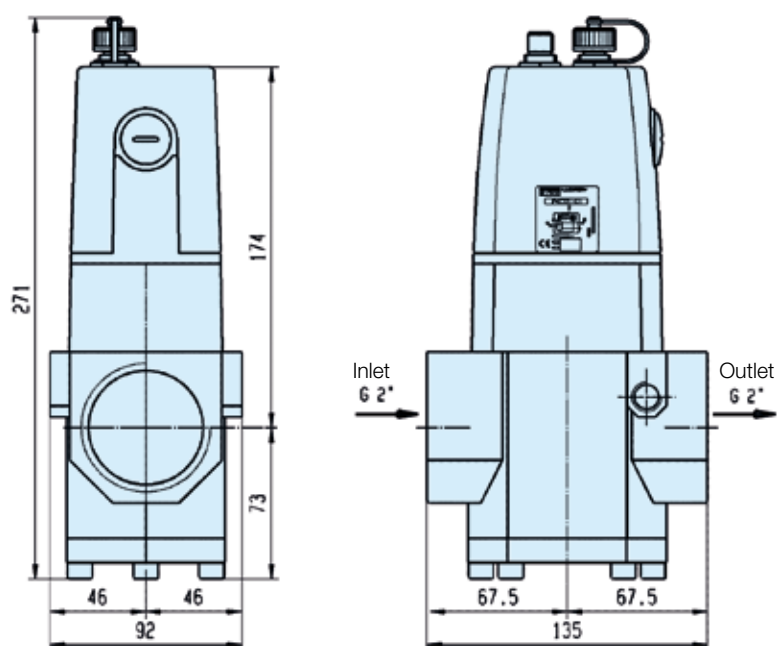
Dimensions (mm) - EPP4 Comfort Range 1"



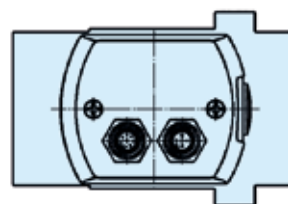
Drawing 11



Dimensions (mm) - EPP4 Comfort Range 2"



Drawing 12



Parker Angle Seat Valves

Introduction

An angle seat valve is actuated by a pneumatically driven piston and is capable to handle slurry solutions with particles or corrosive solutions at high temperature up to 180°C and operating pressure up to 16 Bar.

Benefits

- Compact design, high flow rates
- Visual position indicator
- For temperatures from -10°C to 180°C
- Working pressures up to 16 Bar
- Dampened closing anti-water hammer design (fluid under seat)
- Stainless Steel actuator housing for exceptional durability in steam and aggressive applications
- Valves meeting Pressure Equipment Directive 97/23/EC
- Mountable in any position
- Tight shut-off and Long Service Life
- Parker Angle Seat Valves conform to the terms of the 94/9/CE directive specific to non electrical equipment for use within potentially explosive environments - zones 1/21 and 2/22

Angle seat valves are suitable for many process and industrial applications:

- Food and Beverage Processing
- Water Technology & Treatment
- Textile Industry
- Cooling systems on injection molding machines
- Pharmaceutical & cosmetic industry
- Chemical Process technology
- Refrigeration & Cooling heat exchangers
- Sterilizers steam supply
- Water applications: Mining, Cement / Concrete Systems, Pulp & Paper
- General industrial applications of aggressive fluids
- Industrial Laundry Equipment
- Industrial Air Dryers

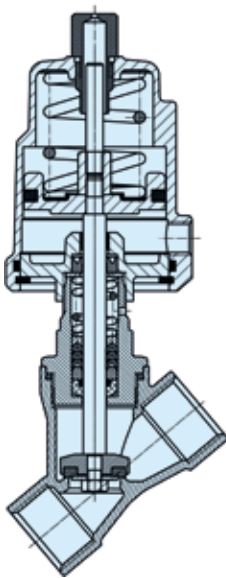


**PA Series, 2/2 Way, NC or NO
3/8" to 2 1/2" BSP, 16 bar**

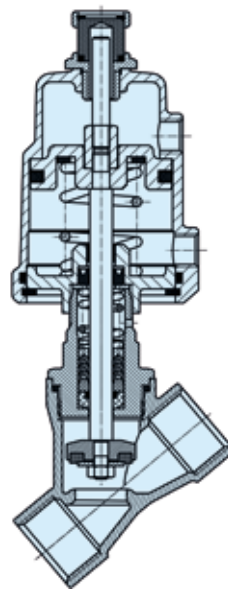
- Body Material 304 Stainless Steel or 316 Stainless Steel
- Actuator Material 304 Stainless Steel, or Aluminum
- Function 2/2 NC, NO, NC (anti-water hammer)
- Port size from DN 10 (3/8") to DN 65 (2 1/2")
- Connections: Threads BSP
- Max Working Pressure 16 Bar
- Flow factor KV from 4.7 m³/h (DN10) to 70 m³/h (DN 65)
- The PA Series angle seat valves comply with European Pressure Equipment Directive 97/23/EC
- Parker Angle Seat Valves conform to the terms of the 94/9/CE directive specific to non electrical equipment for use within potentially explosive environments - Zones 1/21 and 2/22 - Protection II 2 GD c TX
- Pilot Pressure 3 Bar min to 10 Bar according to control pressure charts
- Maximum Fluid Temp -10°C to 180°C
- Ambient Temperature -10°C to 60°C
- Seat Seal material PTFE/RTFE
- Packing Gland: PTFE and PTFE with Carbon
- Installation Any Position
- Optical Position Indicator Standard on all sizes
- Pilot Control Media Air, Neutral Gas
- Fluids handled: Inert gases, hot water, oils, steam, aggressive and corrosive fluids
- Weight from 0.58 Kg (DN10) to 8.65 Kg (DN 65)
- Viscosity: Maxi. 600 mm²/s (600cSt, 80° E, 2700 SSU)

**For liquids, use versions with flow direction under the seat.**

- Spare Parts Kits are available for main seat and body gasket replacement (on request)
- 3 Way Direct Acting AC & DC Pilot Control Valves available as separate components



Normally Closed Valve



Normally Open Valve

PA Series - Normally Closed Valves

Flow Direction OVER Seat

Model Numbers Shown are BSP threads



304 Stainless Steel Actuators with 304 Stainless Steel Bodies



Size	Port Size	Orifice mm	Actuator mm	KV m³/h	Operating Pressure Differential bar	Minimum Pilot Control Pressure Range bar	Order code	Weight Kg
DN10	3/8"	13	40	4.7	0-16	4	PA10S1G3S040S	0.78
			50	4.7	0-16	3	PA10S1G3S050S	1.01
DN15	1/2"	13	40	4.7	0-16	4	PA15S1G4S040S	0.80
			50	4.7	0-16	3	PA15S1G4S050S	1.03
DN20	3/4"	18	50	9.0	0-16	3-4	PA20S1G5S050S	1.06
DN25	1"	24	50	16.0	0-16	3-5.5	PA25S1G6S050S	1.38
			63	16.0	0-16	3-3.5	PA25S1G6S063S	2.05
DN32	1-1/4"	31	63	24.0	0-16	3-5	PA32S1G7S063S	2.40
DN40	1-1/2"	35	63	32.0	0-16	3-6	PA40S1G8S063S	2.75
			63	50.0	0-10	3-6.5	PA50S1G9S063S	3.50
			80	50.0	0-16	3-6.6	PA50S1G9S080S	4.62
DN50	2"	45	100	50.0	0-16	3-5	PA50S1G9S100S	5.16
			100	70.0	0-10	3-6	PA65S1GTS100S	8.65

304 Stainless Steel Actuators with 316L Stainless Steel Bodies

Size	Port Size	Orifice mm	Actuator mm	KV m³/h	Operating Pressure Differential bar	Minimum Pilot Control Pressure Range bar	Order code	Weight Kg
DN10	3/8"	13	40	4.7	0-16	4	PA10S1G3R040S	0.78
			50	4.7	0-16	3	PA10S1G3R050S	1.01
DN15	1/2"	13	40	4.7	0-16	4	PA15S1G4R040S	0.80
			50	4.7	0-16	3	PA15S1G4R050S	1.03
DN20	3/4"	18	50	9.0	0-16	3-4	PA20S1G5R050S	1.06
DN25	1"	24	50	16.0	0-16	3-5.5	PA25S1G6R050S	1.38
			63	16.0	0-16	3-3.5	PA25S1G6R063S	2.05
DN32	1-1/4"	31	63	24.0	0-16	3-5	PA32S1G7R063S	2.40
DN40	1-1/2"	35	63	32.0	0-16	3-6	PA40S1G8R063S	2.75
			63	50.0	0-10	3-6.5	PA50S1G9R063S	3.50
			80	50.0	0-16	3-6.6	PA50S1G9R080S	4.62
DN50	2"	45	100	50.0	0-16	3-5	PA50S1G9R100S	5.16
			100	70.0	0-10	3-6	PA65S1GTR100S	8.65

PA Series - Normally Closed Valves

Flow Direction OVER Seat

Model Numbers Shown are BSP threads



Aluminium Actuators with 304 Stainless Steel Bodies

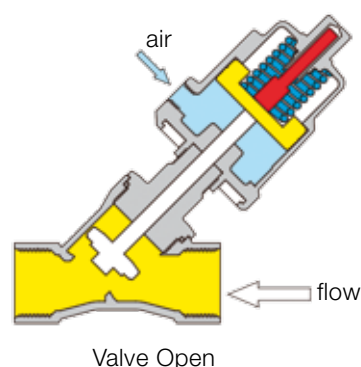
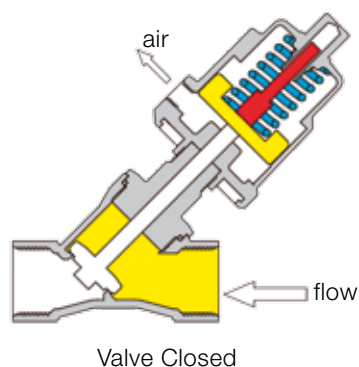


Size	Port Size	Orifice mm	Actuator mm	KV m ³ /h	Operating Pressure Differential bar	Minimum Pilot Control Pressure Range bar	Order code	Weight Kg
DN10	3/8"	13	50	4.7	0-16	3	PA10S1G3S050A	0.75
DN15	1/2"	13	50	4.7	0-16	3	PA15S1G4S050A	0.80
DN20	3/4"	18	50	9.0	0-16	3-4	PA20S1G5S050A	0.90
DN25	1"	24	50	16.0	0-16	3-5.5	PA25S1G6S050A	1.27
			63	16.0	0-16	3-4	PA25S1G6S063A	1.65
DN32	1-1/4"	31	63	24.0	0-16	3-5.5	PA32S1G7S063A	1.89
DN40	1-1/2"	35	63	32.0	0-16	3-6.5	PA40S1G8S063A	2.15
			63	50.0	0-10	3-6.5	PA50S1G9S063A	2.98
			80	50.0	0-16	3-6.6	PA50S1G9S080A	3.56
DN50	2"	45	100	50.0	0-16	3-5	PA50S1G9S100A	4.75
			100	70.0	0-10	3-6	PA65S1GTS100A	5.50

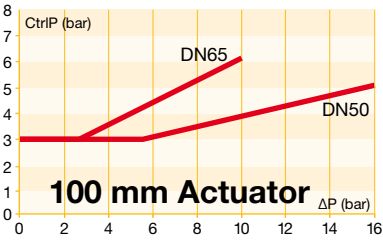
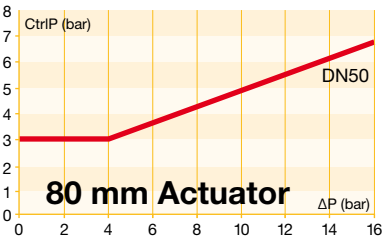
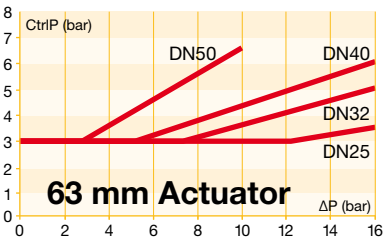
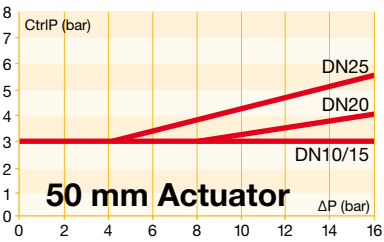
Aluminium Actuators with 316L Stainless Steel Bodies

Size	Port Size	Orifice mm	Actuator mm	KV m ³ /h	Operating Pressure Differential bar	Minimum Pilot Control Pressure Range bar	Order code	Weight Kg
DN10	3/8"	13	50	4.7	0-16	3	PA10S1G3R050A	0.75
DN15	1/2"	13	50	4.7	0-16	3	PA15S1G4R050A	0.80
DN20	3/4"	18	50	9.0	0-16	3-4	PA20S1G5R050A	0.90
DN25	1"	24	50	16.0	0-16	3-5.5	PA25S1G6R050A	1.27
			63	16.0	0-16	3-4	PA25S1G6R063A	1.65
DN32	1-1/4"	31	63	24.0	0-16	3-5.5	PA32S1G7R063A	1.89
DN40	1-1/2"	35	63	32.0	0-16	3-6.5	PA40S1G8R063A	2.15
			63	50.0	0-10	3-6.5	PA50S1G9R063A	2.98
			80	50.0	0-16	3-6.6	PA50S1G9R080A	3.56
DN50	2"	45	100	50.0	0-16	3-5	PA50S1G9R100A	4.75
			100	70.0	0-10	3-6	PA65S1GTR100A	5.50

Flow Diagram



Control Pressure & Operating Pressure Charts
for the Normally Closed Valves with Aluminum Actuators



PA Series - Normally Closed Valves**Flow Direction UNDER Seat****Anti Water Hammer Construction**

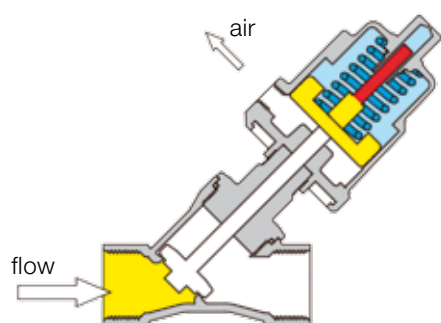
Model Numbers Shown are BSP threads

**304 Stainless Steel Actuators
with 304 Stainless Steel Bodies**

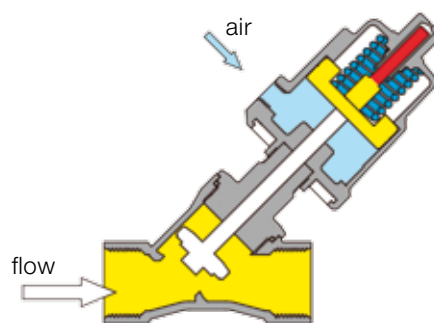
Size	Port Size	Orifice mm	Actuator mm	KV m³/h	Operating Pressure Differential bar	Minimum Pilot Control Pressure bar	Order code	Weight Kg
DN10	3/8"	13	50	4.7	0-16	4.5	PA10SAG3S050S	1.01
DN15	1/2"	13	50	4.7	0-16	4.5	PA15SAG4S050S	1.03
DN20	3/4"	18	50	9.0	0-10	4.5	PA20SAG5S050S	1.06
DN25	1"	24	63	16.0	0-8	4.5	PA25SAG6S063S	2.05
DN32	1-1/4"	31	80	24.0	0-11	4	PA32SAG7S080S	3.82
DN40	1-1/2"	35	80	32.0	0-8	4	PA40SAG8S080S	4.07
			100	32.0	0-16	4	PA40SAG8S100S	4.61
DN50	2"	45	100	50.0	0-9	4	PA50SAG9S100S	5.16

**304 Stainless Steel Actuators
with 316L Stainless Steel Bodies**

Size	Port Size	Orifice mm	Actuator mm	KV m³/h	Operating Pressure Differential bar	Minimum Pilot Control Pressure bar	Order code	Weight Kg
DN10	3/8"	13	50	4.7	0-16	4.5	PA10SAG3R050S	1.01
DN15	1/2"	13	50	4.7	0-16	4.5	PA15SAG4R050S	1.03
DN20	3/4"	18	50	9.0	0-10	4.5	PA20SAG5R050S	1.06
DN25	1"	24	63	16.0	0-8	4.5	PA25SAG6R063S	2.05
DN32	1-1/4"	31	80	24.0	0-11	4	PA32SAG7R080S	3.82
DN40	1-1/2"	35	80	32.0	0-8	4	PA40SAG8R080S	4.07
			100	32.0	0-16	4	PA40SAG8R100S	4.61
DN50	2"	45	100	50.0	0-9	4	PA50SAG9R100S	5.16

Flow Diagram

Valve Closed



Valve Open

PA Series - Normally Closed Valves

Flow Direction UNDER Seat

Anti Water Hammer Construction

Model Numbers Shown are BSP threads

Aluminium Actuators with 304 Stainless Steel Bodies



Size	Port Size	Orifice mm	Actuator mm	KV m³/h	Operating Pressure Differential bar	Minimum Pilot Control Pressure bar	Order code	Weight Kg
DN10	3/8"	13	50	4.7	0-16	4.5	PA10SAG3S050A	0.75
DN15	1/2"	13	50	4.7	0-16	4.5	PA15SAG4S050A	0.80
DN20	3/4"	18	50	9.0	0-10	4.5	PA20SAG5S050A	0.90
DN25	1"	24	63	16.0	0-8	4.5	PA25SAG6S063A	1.65
DN32	1-1/4"	31	80	24.0	0-11	4	PA32SAG7S080A	2.80
DN40	1-1/2"	35	80	32.0	0-8	4	PA40SAG8S080A	3.10
			100	32.0	0-16	4	PA40SAG8S100A	4.15
DN50	2"	45	100	50.0	0-9	4	PA50SAG9S100A	4.75

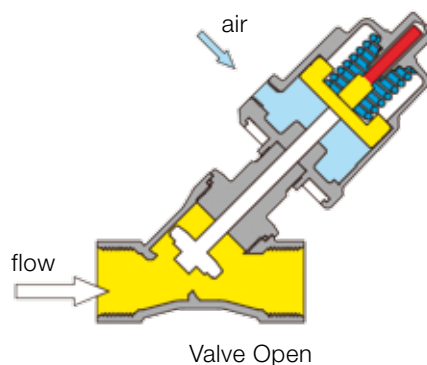
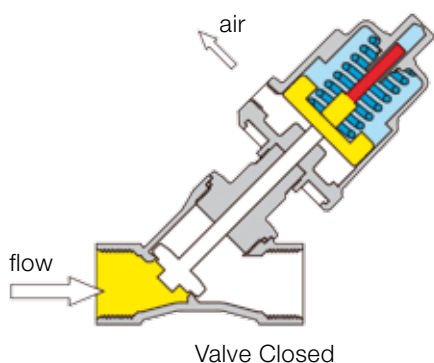
Aluminium Actuators with 316L Stainless Steel Bodies

Size	Port Size	Orifice mm	Actuator mm	KV m³/h	Operating Pressure Differential bar	Minimum Pilot Control Pressure bar	Order code	Weight Kg
DN10	3/8"	13	50	4.7	0-16	4.5	PA10SAG3R050A	0.75
DN15	1/2"	13	50	4.7	0-16	4.5	PA15SAG4R050A	0.80
DN20	3/4"	18	50	9.0	0-10	4.5	PA20SAG5R050A	0.90
DN25	1"	24	63	16.0	0-8	4.5	PA25SAG6R063A	1.65
DN32	1-1/4"	31	80	24.0	0-11	4	PA32SAG7R080A	2.80
DN40	1-1/2"	35	80	32.0	0-8	4	PA40SAG8R080A	3.10
			100	32.0	0-16	4	PA40SAG8R100A	4.15
DN50	2"	45	100	50.0	0-9	4	PA50SAG9R100A	4.75

Control Pressure & Operating Pressure

Charts do not apply for Valves with flow direction Under Seat. A minimum pressure as noted above is all that is required, up to a maximum of 10 bar.

Flow Diagram



PA Series - Compact Design Normally Closed Valves Flow Direction OVER Seat

Model Numbers Shown are BSP threads

Media Temperature - 10°C to + 100°C



304 Stainless Steel Actuators with 304 Stainless Steel Bodies



Size	Port Size	Orifice mm	Actuator mm	KV m³/h	Operating Pressure Differential bar	Minimum Pilot Control Pressure Range bar	Order code	Weight Kg
DN10	3/8"	13	32	4.7	0-16	4.5-6	PA10C3G3S032S	0.58
DN15	1/2"	13	32	4.7	0-16	4.5-6	PA15C3G4S032S	0.60
DN20	3/4"	15	32	5.4	0-14	4.5-6	PA20C3G5S032S	0.65

304 Stainless Steel Actuators with 316L Stainless Steel Bodies

Size	Port Size	Orifice mm	Actuator mm	KV m³/h	Operating Pressure Differential bar	Minimum Pilot Control Pressure Range bar	Order code	Weight Kg
DN10	3/8"	13	32	4.7	0-16	4.5-6	PA10C3G3R032S	0.58
DN15	1/2"	13	32	4.7	0-16	4.5-6	PA15C3G4R032S	0.60
DN20	3/4"	15	32	5.4	0-14	4.5-6	PA20C3G5R032S	0.65

Media Temperature - 10°C to + 180°C

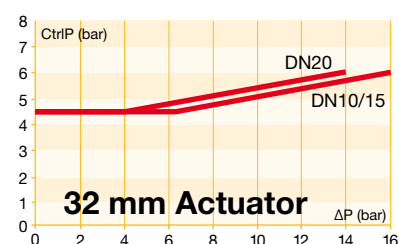
304 Stainless Steel Actuators with 304 Stainless Steel Bodies

Size	Port Size	Orifice mm	Actuator mm	KV m³/h	Operating Pressure Differential bar	Minimum Pilot Control Pressure Range bar	Order code	Weight Kg
DN10	3/8"	13	32	4.7	0-16	4.5-6	PA10C1G3S032S	0.63
DN15	1/2"	13	32	4.7	0-16	4.5-6	PA15C1G4S032S	0.65
DN20	3/4"	15	32	5.4	0-14	4.5-6	PA20C1G5S032S	0.71

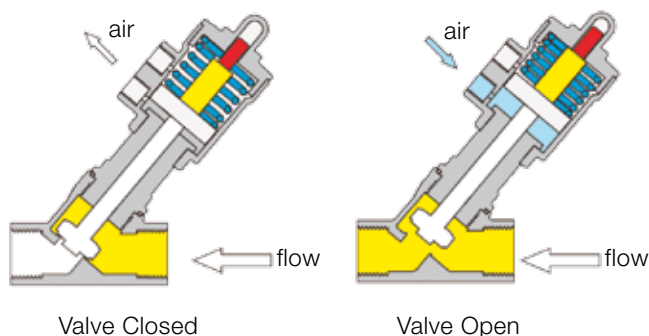
304 Stainless Steel Actuators with 316L Stainless Steel Bodies

Size	Port Size	Orifice mm	Actuator mm	KV m³/h	Operating Pressure Differential bar	Minimum Pilot Control Pressure Range bar	Order code	Weight Kg
DN10	3/8"	13	32	4.7	0-16	4.5-6	PA10C1G3R032S	0.63
DN15	1/2"	13	32	4.7	0-16	4.5-6	PA15C1G4R032S	0.65
DN20	3/4"	15	32	5.4	0-14	4.5-6	PA20C1G5R032S	0.71

Control Pressure & Operating Pressure



Flow Diagram



PA Series - Compact Design Normally Closed Valves

Flow Direction UNDER Seat

Model Numbers Shown are BSP threads

Media Temperature - 10°C to + 100°C



304 Stainless Steel Actuators with 304 Stainless Steel Bodies

Size	Port Size	Orifice mm	Actuator mm	KV m ³ /h	Operating Pressure Differential bar	Minimum Pilot Control Pressure Range bar	Order code	Weight Kg
DN10	3/8"	13	32	4.7	0-6	5-6	PA10C4G3S032S	0.58
DN15	1/2"	13	32	4.7	0-6	5-6	PA15C4G4S032S	0.60
DN20	3/4"	15	32	5.4	0-4	5-6	PA20C4G5S032S	0.65

304 Stainless Steel Actuators with 316L Stainless Steel Bodies

Size	Port Size	Orifice mm	Actuator mm	KV m ³ /h	Operating Pressure Differential bar	Minimum Pilot Control Pressure Range bar	Order code	Weight Kg
DN10	3/8"	13	32	4.7	0-6	5-6	PA10C4G3R032S	0.58
DN15	1/2"	13	32	4.7	0-6	5-6	PA15C4G4R032S	0.60
DN20	3/4"	15	32	5.4	0-4	5-6	PA20C4G5R032S	0.65

Media Temperature - 10°C to + 180°C

304 Stainless Steel Actuators with 304 Stainless Steel Bodies

Size	Port Size	Orifice mm	Actuator mm	KV m ³ /h	Operating Pressure Differential bar	Minimum Pilot Control Pressure Range bar	Order code	Weight Kg
DN10	3/8"	13	32	4.7	0-6	5-6	PA10C2G3S032S	0.63
DN15	1/2"	13	32	4.7	0-6	5-6	PA15C2G4S032S	0.65
DN20	3/4"	15	32	5.4	0-4	5-6	PA20C2G5S032S	0.71

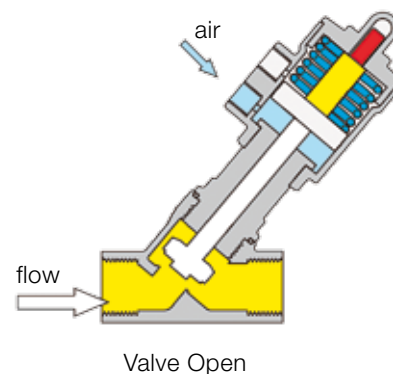
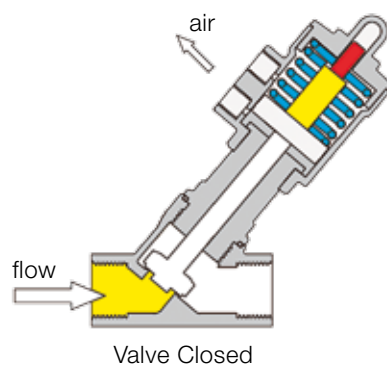
304 Stainless Steel Actuators with 316L Stainless Steel Bodies

Size	Port Size	Orifice mm	Actuator mm	KV m ³ /h	Operating Pressure Differential bar	Minimum Pilot Control Pressure Range bar	Order code	Weight Kg
DN10	3/8"	13	32	4.7	0-6	5-6	PA10C2G3R032S	0.63
DN15	1/2"	13	32	4.7	0-6	5-6	PA15C2G4R032S	0.65
DN20	3/4"	15	32	5.4	0-4	5-6	PA20C2G5R032S	0.71

Control Pressure & Operating Pressure

Charts do not apply for Valves with flow direction Under Seat. A minimum pressure as noted above is all that is required, up to 10 bar maximum.

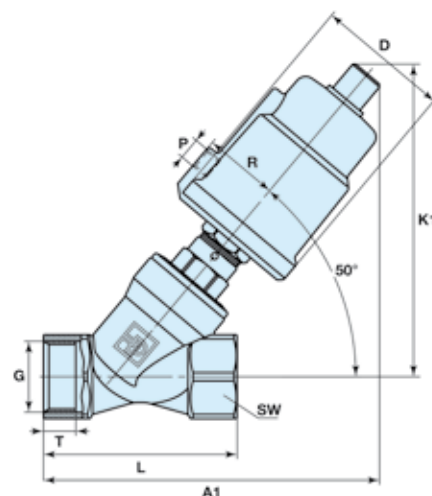
Flow Diagram



PA Series - Drawings and Dimensions

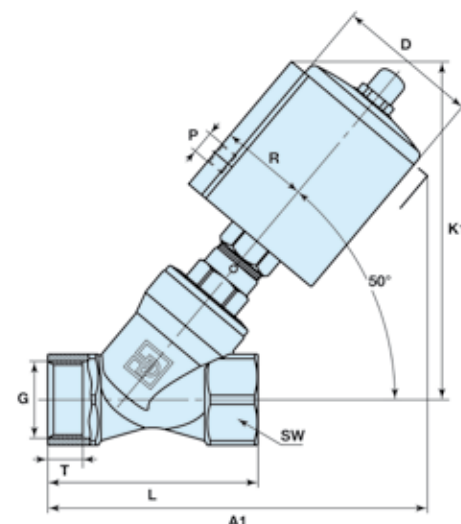
Stainless Steel Actuators Sizes 40, 50, 63, 80, 100 mm

Type	Actuator	D	R	P	K1	A1	G	L	T	SW
DN10	40	50.5	27	G1/8	116	121	G3/8	60	10	22 hexagon
	50	62	34	G1/8	130	133	G3/8	60	10	22 hexagon
DN15	40	50.5	27	G1/8	118	124	G1/2	65	11.5	25 hexagon
	50	62	34	G1/8	131	135	G1/2	65	11.5	25 hexagon
DN 20	50	62	34	G1/8	134	141	G3/4	75	14	31 hexagon
DN25	50	62	34	G1/8	141	153	G1	90	15	39 hexagon
	63	77	41.5	G1/8	164	175	G1	90	15	39 hexagon
DN32	63	77	41.5	G1/8	170	188	G1-1/4	110	18	50 octagon
	80	98	52	G1/4	184	205	G1-1/4	110	18	50 octagon
DN40	63	77	41.5	G1/8	181	201	G1-1/2	120	18	56 octagon
	80	98	52	G1/4	195	217	G1-1/2	120	18	56 octagon
	100	121	63	G1/4	213	235	G1-1/2	120	18	56 octagon
DN50	63	77	41.5	G1/8	189	216	G2	150	22	68 octagon
	80	98	52	G1/4	203	233	G2	150	22	68 octagon
	100	121	63	G1/4	221	250	G2	150	22	68 octagon
DN65	100	121	63	G1/4	248	285	G2-1/2	180	25	85 octagon



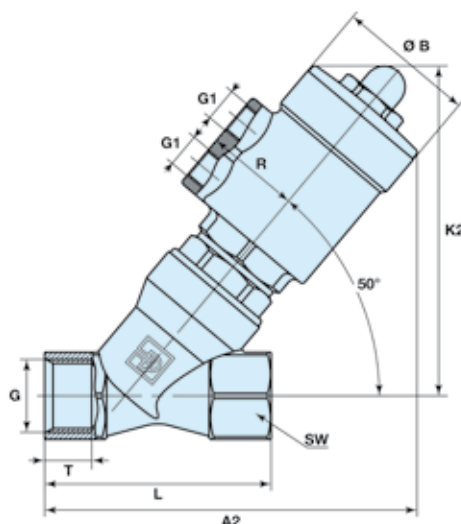
Aluminum Actuators Sizes 50, 63, 80, 100 mm

Type	Actuator	D	R	P	K1	A1	G	L	T	SW
DN10	50	61	38	G1/8	132	141	G3/8	60	10	22 hexagon
DN15	50	61	38	G1/8	133	144	G1/2	65	11.5	25 hexagon
DN20	50	61	38	G1/8	136	150	G3/4	75	14	31 hexagon
DN25	50	61	38	G1/8	144	162	G1	90	15	39 hexagon
	63	75	45	G1/8	167	183	G1	90	15	39 hexagon
DN32	63	75	45	G1/8	173	196	G1-1/4	110	18	50 octagon
	80	94	54	G1/4	192	214	G1-1/4	110	18	50 octagon
	63	75	45	G1/8	184	209	G1-1/2	120	18	56 octagon
DN40	80	94	54	G1/4	203	226	G1-1/2	120	18	56 octagon
	100	115	64	G1/4	223	245	G1-1/2	120	18	56 octagon
	63	75	45	G1/8	192	224	G2	150	22	68 octagon
DN50	80	94	54	G1/4	211	242	G2	150	22	68 octagon
	100	115	64	G1/4	231	260	G2	150	22	68 octagon
DN65	100	115	64	G1/4	257	294	G2-1/2	180	25	85 octagon



Stainless Steel Actuators Size 32 mm

Type	Actuator	Ø B	R	G1	K2		A2		G	L	T	SW
					Type C1/C2 (180°C)	Type C3/C4 (100°C)	Type C1/C2 (180°C)	Type C3/C4 (100°C)				
DN10	32	39.6	27	G1/8	107	94	117	106	G3/8	60	10	22 hexagon
DN15	32	39.6	27	G1/8	109	96	119	108	G1/2	65	11.5	25 hexagon
DN20	32	39.6	27	G1/8	112	100	126	115	G3/4	75	14	31 hexagon



Solenoid Valves for Controlling the PA Angle Seat Valves

3 Way Direct Acting Pilot Control Valves

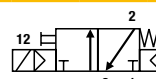
Banjo Valve - Available as Separate Components

Banjo Valves G1/4" & G1/8" Series with Aluminium Body

Solenoid Operated Versions - B14-B04 Versions with 22 mm Coil

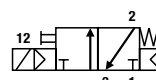
Port Size	Orifice	Q _N	Admissible differential pressure (bar)		Max. admissible fluid temperature (°C)		Seat disc	Reference number			Consumption Power (Watt)		Weight (g)	Dim. Ref.
Banjo	G	mm	l/min	min	max. DC=	AC~		Valve	Housing	Coil	DC	AC		

3/2 Solenoid operated - Spring return (monostable)



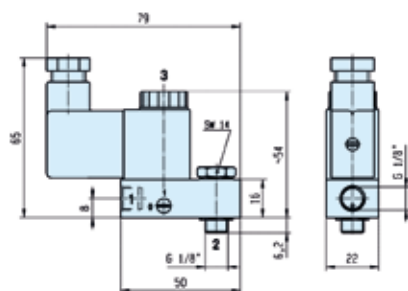
1/8	1/8	1.2	50	0	10	10	50	NBR	131B14	-	496131	3	3	140	26
1/8	1/8	1.2	50	0	10	10	50	NBR	131B14	-	496482	3	3	150	26
1/8	1/8	1.2	50	0	10	10	50	NBR	131B14	-	496637	3	3	150	26
1/8	1/8	1.2	50	0	10	-	50	NBR	131B14	-	482605	5	-	170	26

3/2 Solenoid operated - Spring return (monostable)

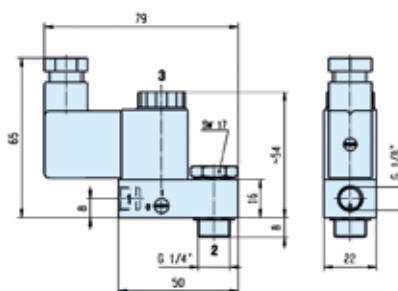


1/4	1/8	1.2	50	0	10	10	50	NBR	131B04	-	496131	3	3	160	27
1/4	1/8	1.2	50	0	10	10	50	NBR	131B04	-	496482	3	3	175	27
1/4	1/8	1.2	50	0	10	10	50	NBR	131B04	-	496637	3	3	175	27
1/4	1/8	1.2	50	0	10	-	50	NBR	131B04	-	482605	5	-	190	27

Dimensions Reference 26



Dimensions Reference 27



Coils 22 mm for Banjo Valves Series

These coils with connection for 2 P+G DIN 43650 B plug are encapsulated in synthetic material, conform to the IEC/CENELEC safety standards and comply with European low voltage directive 2006/95/EC. Banjo Valve bodies conform to the terms of the directive 94/9/CE specific to non electrical equipment for use within potentially explosive environments - Please select appropriate Coil for Safe Area or ATEX zones 1/21 or 2/22 in the following table.

	Available Voltages	Safe area without DIN plug Code	Safe area with DIN plug Code	For Zone 2/22 II 3 G-Ex nc AC IIC T5 II 3 D-Ex tc AC IIIC - T 95°C code with DIN plug	For Zone 1/21 II 2 G-Ex mb II T4 II 2 D-Ex tb IIIC - T 130°C code includes DIN plug and 1.5 m cable
I Power: 3 W or 5 W	12 VDC	496131 C1	496482 C1	496637 C1	482605 C1
I Insulation Class: F (155°C)	24 VDC	496131 C2	496482 C2	496637 C2	482605 C2
I Degree of Protection: IP65 (with plug)	48 VDC	496131 C4	496482 C4	496637 C4	-
I Duty Cycle: 100% ED	110 VDC	496131 C5	496482 C5	496637 C5	-
	24/50-60 VAC	496131 P0	496482 P0	496637 P0	-
	48/50-60 VAC	496131 S4	496482 S4	496637 S4	-
	110/50-60 VAC	496131 P2	496482 P2	496637 P2	-
	115/60 VAC	496131 K8	496482 K8	496637 K8	-
	230/50-60 VAC	496131 P9	496482 P9	496637 P9	-

How to Order

Valve Reference Number - Coil Reference - Voltage code = Order code

Example: 131B14 - 496131 C2 - Valves and coils may be ordered also separately.