



# Parker One Pneumatic

A complete range of pneumatic system components

Catalogue PDE2600PNUK March 2011

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



ENGINEERING YOUR SUCCESS.

# Fluid Controls

## 2/2 - Way Shut off Valve for Air



p291

- 1/4" - 2" pipe mount
- Pressure range up to 40 bar
- Normally open and normally closed
- Direct or servo-acting
- Long life expectancy, highest reliability
- Manual override optional
- Excellent response time
- Can be mounted with Lucifer® coil families

## Proportional Pressure Regulator



p378

- 1/4" - 2" pipe mount
- Lucifer® Programmable EPP4 all parameters fully adjustable through the PC software calys
- Low power consumption (2.2W), energy savings
- High responsiveness and low hysteresis (0.5%)
- Flexible remote display
- Compact design and light
- Easy to use software

## 3/2 - Way Valves for Air



p300

- 1/8" - 1/4" pipe mount and flange version
- Pressure range up to 30 bar
- Normally open and normally closed, universal
- Long life expectancy - highest reliability
- Excellent response time repeatability
- Can be mounted with Lucifer® coil families

## 3/2 - 5/2 NAMUR Valves



p301

- 1/4" - 1/2" NAMUR interface
- Patented NAMUR conversion plate
- Highflow Qn: 3000 L/min
- Solenoid or pneumatic version
- High resistance aluminium
- ATEX zone 22 certified products
- Fast switching application

## EExPress Bus Manifold for ATEX



p335

- EExPress™ is a stackable system that includes Gateway, Input sensor modules and 5/2 way Solenoid valve modules
- EExPress™ uses the well known Profibus DP protocol
- IP65 - no cabinet needed
- Zone 1, 2, 21 and 22 protection
- It has been designed to approach a "plug and play" usage

## Standard, ATEX and IECEx Coils



p314

- Modular concept for dedicated valves
- D / B Terminal Standard
- Various AC / DC voltages
- Various IP65-IP67, 100% ED
- Meet latest international & national codes
- ATEX zone 0, 1, 2, 20, 21, 22 protected ia, ib, dm, d, e, m, me, n

## Fluid Controls

### Solenoid Valves for Fluid Control Applications



Fluid control products have been designed to offer customers the ultimate in performance. Every valve is engineered for optimal operation, is constructed with modern machinery that use stringent processes, and provides standard features not necessarily offered in any competitive line. The Fluid Control Series portfolio offers a broad range of 2/2, 3/2 and 5/2 solenoid valves. Sizes range from 1/8" to 3", with Kv as high as 1385 L/min. Pressure capabilities range up to 200 bar; the whole range is available with various seal materials, such as NBR, FKM, EPDM, PTFE, PCTFE, PUR and Ruby. Brass, Aluminium, Stainless steel and Plastic Valves are available to control a wide variety of air, neutral gases and liquids, water, oils, process fluids and steam.

For further information see: [www.parker.com/fcde](http://www.parker.com/fcde)

## 2/2-Way Direct Operated Valve

General application valves for dry or lubricated air, neutral gases and liquids



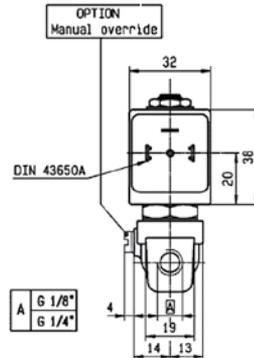
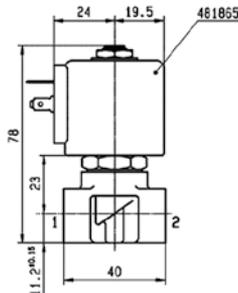
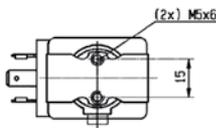
- Description:
- 2/2-Way Direct Operated Valve - Normally Closed.
  - Coil IP65 for 2 P + E plug according to DIN 43650 type A
  - Power Consumption 8W (AC), 9W (DC).
- Applications:
- Shut-off and control (On-Off) of water, air, light oils, steam and inert gases
  - Humidifiers, welding systems, industrial washing machines, automatic dispensers, diesel oil burners, sterilizers, compressors.
- Temperature Range:
- Min: -10°C | Max: see table
- Seals Material:
- See table
- Advantages:
- Versatile product for many 2/2 NC valve requiring applications, robust design.

Port size	Orifice	K <sub>v</sub>	Admissible differential pressure (bar)			Fluid Temp.	Seal Material	Reference number			Options
			Min.	Max. DC	Max. AC			Valve	Housing	Coil	

### 2/2-Way Direct Operated Valve

Normally CLOSED

1/8"	2.5	3.50	0	10.0	28.0	100°C	Ruby	E121K23	2995	481865	-
1/8"	3.0	4.50	0	7.0	10.0	100°C	FKM	121K1302	2995	481865	-
1/4"	1.2	0.85	0	36.0	80.0	100°C	Ruby	E121K65	2995	481865	-
1/4"	1.5	1.50	0	25.0	60.0	75°C	PCTFE	E121K04	2995	481865	-
1/4"	1.5	1.50	0	25.0	60.0	100°C	Ruby	E121K67	2995	481865	-
1/4"	1.5	1.50	0	20.0	20.0	100°C	FKM	E121K0402	2995	481865	-
1/4"	2.5	3.50	0	10.0	28.0	75°C	PCTFE	E121K07	2995	481865	-
1/4"	2.5	3.50	0	7.0	14.0	100°C	FKM	121K0706	2995	481865	-
1/4"	2.5	3.50	0	10.0	28.0	100°C	Ruby	E121K63	2995	481865	-
1/4"	3.0	4.50	0	7.0	20.0	75°C	PCTFE	E121K03	2995	481865	-
1/4"	3.0	4.50	0	7.0	10.0	100°C	FKM	E121K0302	2995	481865	-
1/4"	3.0	4.50	0	7.0	10.0	100°C	EPDM	121K0323	2995	481865	-
1/4"	3.0	4.50	0	7.0	10.0	100°C	FKM	E121K0352	2995	481865	**
1/4"	3.0	4.50	0	7.0	20.0	100°C	Ruby	E121K64	2995	481865	-
1/4"	4.0	7.50	0	4.0	10.0	100°C	FKM	121K02	2995	481865	-
1/4"	4.0	7.50	0	4.0	10.0	100°C	FKM	121K0250	2995	481865	**
1/4"	5.0	11.00	0	2.0	7.0	100°C	FKM	121K01	2995	481865	-
1/4"	5.0	11.00	0	2.0	7.0	100°C	EPDM	121K0103	2995	481865	-
1/4"	5.0	11.00	0	2.0	7.0	100°C	FKM	121K0150	2995	481865	**
1/4"	5.0	11.00	0	2.0	7.0	100°C	FKM	121K3106	2995	481865	-
3/8"	4.0	7.50	0	4.0	10.0	100°C	FKM	121K3206	2995	481865	-
3/8"	6.0	12.00	0	1.1	5.0	100°C	FKM	121K3303	2995	481865	-
3/8"	6.0	12.00	0	1.1	5.0	100°C	FKM	121K3306	2995	481865	-
1/2"	8.5	25.00	0	0.5	1.1	100°C	FKM	E121K46	2995	481865	-
1/2"	11.0	36.00	0	0.3	0.7	100°C	FKM	E121K45	2995	481865	-



\*\* Manual override standard

## 2/2 & 3/2 Solenoid Valves for High Pressure pneumatic applications - 40 bar

### Product offering:

- 2/2 valves and 3/2 way valves - pilot operated
- Pipe mounting (G 1/2- 3/4) or sub-base mounting
- 1.5 (2) - 40 bar
- Normally open or closed
- Internal or external pilot pressure supply

### Customer Value Proposition:

- Safety of operation
- Reliability
- Response time stability
- Repeatability
- No leakage
- Integrated non return valve (421version)



The use of high pressure gases became a necessity in the new technologies developed during the last years.

The control of these fluids can be done through the solenoid valves specially designed by Parker Lucifer for high pressure applications (maximum 50 bar).

The **life expectancy of several millions** of cycles, with **response time of few milliseconds**, allows the use of these valves on intensive applications and on high technology machines, as the plastic bottle blowing machines, or the laser cutting machines.



Parker Lucifer also develops special valves or adapted blocks upon specific customers needs. Please contact your agent for more information.

## Application Example

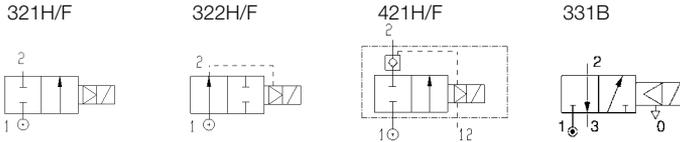
### Main Technical Specifications

#### Function

2/2 pilot operated: Normally closed (with internal pilot pressure) 321H/F type  
 Normally closed (with external pilot pressure) 421H/F type  
 Normally open (with internal pilot pressure) 322H/F type

3/2 pilot operated: normally closed (with internal pressure) 331B type

#### ISO diagram



#### Mounting

- For direct pipe mounting G 1/2" or 3/4" (2/2 Valve type H); G 1/4 (3/2 Valve type B)  
 - For sub-base mounting (type F)

#### Nominal diameter

15 mm (type H), 14 mm (type F)

#### Pressures

For the version with external pilot pressure, the pilot pressure must always be higher than the controlled pressure

#### External Leakage

0 Ncc/min.

#### Internal Leakage

< 20 Ncc/min.

#### Fluids

Dry lubricated or non lubricated air, Argon, Nitrogen.  
 Oxygen on request

#### Proof pressure

200 bar

#### Filtration

< 1  $\mu$ m

#### Life expectancy

> 2  $10^6$  cycles (dry and clean air)  
 > 8  $10^6$  cycles (lubricated air)

#### Temperatures

Ambient / fluid mini: -10 °C  
 Ambient / fluid maxi: +50 °C

#### Materials specifications

Body/cover: 2/2 Valves: Brass - 3/2 Valves: Aluminium  
 Pilot seals : PUR  
 Main seals : FKM (Viton®) with isolating diaphragm from PUR  
 Tube and plunger : Stainless steel  
 Coil : Encapsulation from PA66 + 30% fiber glass

#### Options

$\Delta p$  maxi 50 bar on request

#### Response Time

Depends on application

#### Mounting Position

Indifferent

#### Specials

Parker Lucifer also develops special valves or adapted blocks upon specific customers needs.  
 Please contact your agent for more information.

Port size	Orifice	Flow Factor (l/min)	Admissible differential pressure (bar)			Fluid Temp.	Seal Material (C°)	Reference number				Dim. Ref. N°
			Min.	Max. DC	Max. AC			Global Ref. No.	Valve	Housing	Coil	
G	mm	Gaz Qn				Gaz Max.						

**2/2 Valves - Direct Pipe Mounting**

Normally CLOSED

1/2"	15	3150	1.5	40	40	50	FKM	-	321H35	2995	see table	1
3/4"	15	3550	1.5	40	40	50	FKM	-	321H36	2995	see table	1

**2/2 Valves - Direct Pipe Mounting**

Normally OPEN

1/2"	15	3150	1.5	40	40	50	FKM	-	322H35	2995	see table	2
3/4"	15	3550	1.5	40	40	50	FKM	-	322H36	2995	see table	2

**2/2 Valves - Direct Pipe Mounting**

External Pilot

Normally CLOSED

1/2"	15	3150	2	40	40	50	FKM	-	421H35	2995	see table	3
3/4"	15	3550	2	40	40	50	FKM	-	421H36	2995	see table	3

**2/2 Valves - Sub-base Mounting**

Normally CLOSED

-	14	2100	1.5	40	40	50	FKM	-	321F35	2995	see table	4
-	22	7000	5	40	40	50	FKM	-	321F37	2995	see table	-

**2/2 Valves - Sub-base Mounting**

Normally OPEN

-	14	2100	1.5	40	40	50	FKM	-	322F35	2995	see table	5
-	22	7000	1.5	40	40	50	FKM	-	322F37	2995	see table	-

**2/2 Valves - Sub-base Mounting**

External Pilot

Normally CLOSED

-	14	2100	2	40	40	50	FKM	-	421F35	2995	see table	6
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**3/2 Valves - Direct Pipe Mounting**

Normally CLOSED

1/4"	8	750	1	40	40	50	PUR	-	331B31	2995	see table	7
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**3/2 Valves - Sub-base Mounting**

Normally CLOSED

-	8	750	1	40	40	50	PUR	-	331F31	2995	see table	-
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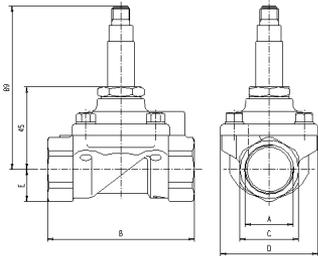
**Available electrical parts:**

You will find standard available coil details on the next pages. Due to the innovative sleeve design it is also possible to use all listed Parker valves with special solutions, like water tight (IP67) or explosion proof designs.

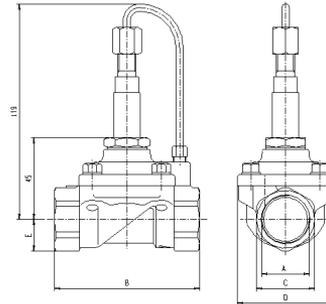
Please consult your local agent for more details.

**Dimensions**

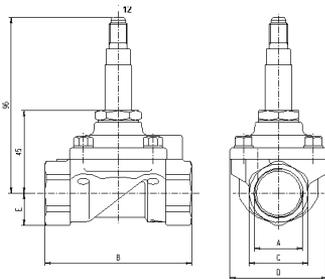
Dimensions Reference N° 1



Dimensions Reference N° 2

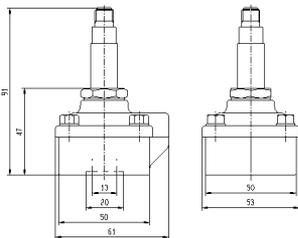


Dimensions Reference N° 3

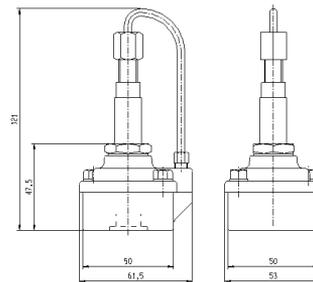


	A	B	C	D	E
G3/4"	80	32	53	17.5	
G1/2"	75	27	53	13.5	

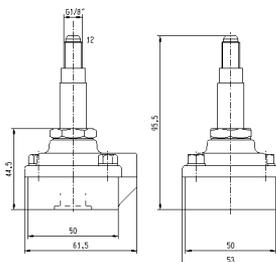
Dimensions Reference N° 4



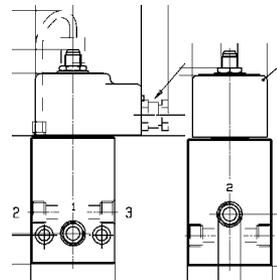
Dimensions Reference N° 5



Dimensions Reference N° 6



Dimensions Reference N° 7



## Electrical Parts Availability

### 32 mm Electrical Parts Availability

#### 481865 Series - Standard Coil Mono-Frequency, F Class, IP65

Encapsulated in synthetic material, connector for 2P+E DIN 43650 A Plug, IP65 insulation class to be considered with connector plug only. This coil conforms to the IEC/CENELEC safety standards and complies with European low-voltage directive 73/23/EC.

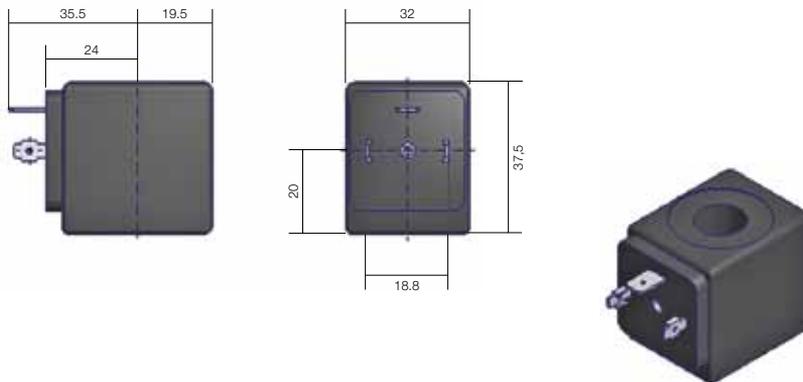
Voltage V	Power Consumption	Reference	Approvals	Ambient Temperature	Class of insulation	Dimensional Drawing
24/50	8 W	<b>481865A2</b>	-	-40°C to +50°C	F Class 155°C	8
48/50	8 W	<b>481865A4</b>	-	-40°C to +50°C	F Class 155°C	8
110/50	8 W	<b>481865A5</b>	-	-40°C to +50°C	F Class 155°C	8
220-230/50	8 W	<b>4818653D</b>	-	-40°C to +50°C	F Class 155°C	8
380/50	8 W	<b>481865A9</b>	-	-40°C to +50°C	F Class 155°C	8
24/60	8 W	<b>481865B2</b>	-	-40°C to +50°C	F Class 155°C	8
230/60	8 W	<b>481865J3</b>	-	-40°C to +50°C	F Class 155°C	8
115/60	8 W	<b>481865K8</b>	-	-40°C to +50°C	F Class 155°C	8
12 DC	9 W	<b>481865C1</b>	-	-40°C to +50°C	F Class 155°C	8
24 DC	9 W	<b>481865C2</b>	-	-40°C to +50°C	F Class 155°C	8
48 DC	9 W	<b>481865C4</b>	-	-40°C to +50°C	F Class 155°C	8
110V DC	9 W	<b>481865C5</b>	-	-40°C to +50°C	F Class 155°C	8

#### Voltage

**Tolerances:** -10% to +10% of the nominal voltage (AC), -5% to +10% of the nominal voltage (DC)

**Duty:** Continuous duty coil (100%ED)

**Weight:** 130 g (without plug)



All dimensions are in mm

Dimensional Drawing N° 8

## 32 mm Electrical Parts Availability

### 483510 Series - Standard Bi-Frequency Coil, F Class, IP65

Encapsulated in synthetic material, connector for 2P+E DIN 43650 A Plug, IP65 insulation class to be considered with connector plug only.

This coil conforms to the IEC/CENELEC safety standards and complies with European low-voltage directive 73/23/EC.

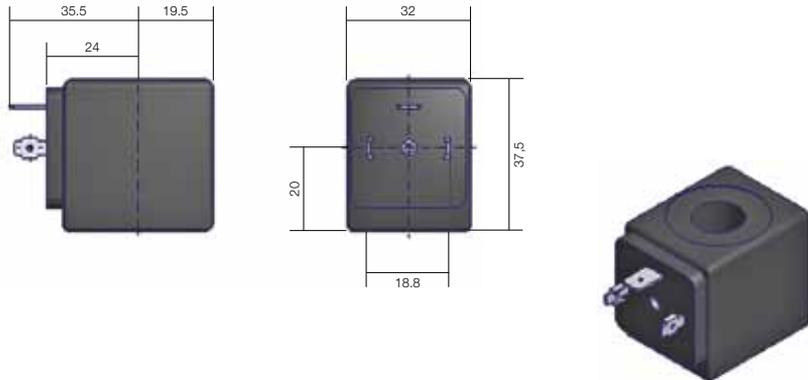
Voltage V	Power Consumption	Reference	Approvals	Ambient Temperature	Class of insulation	Dimensional Drawing
12/50-60	9 W	<b>4835101W</b>	-	-40°C to +50°C	F Class 155°C	8
24/50-60	9 W	<b>483510P0</b>	-	-40°C to +50°C	F Class 155°C	8
48/50-60	9 W	<b>483510S4</b>	-	-40°C to +50°C	F Class 155°C	8
110-115/50 120/60	9 W	<b>483510S5</b>	-	-40°C to +50°C	F Class 155°C	8
220-240/50 240/60	9 W	<b>483510S6</b>	-	-40°C to +50°C	F Class 155°C	8

#### Voltage

**Tolerances:** -10% to +10% of the nominal voltage (AC), -5% to +10% of the nominal voltage (DC)

**Duty** Continuous duty coil (100%ED)

**Weight:** 130 g (without plug)



All dimensions are in mm

Dimensional Drawing N° 8

## 2 Way Solenoid Valves High Flow

### Fast Switching

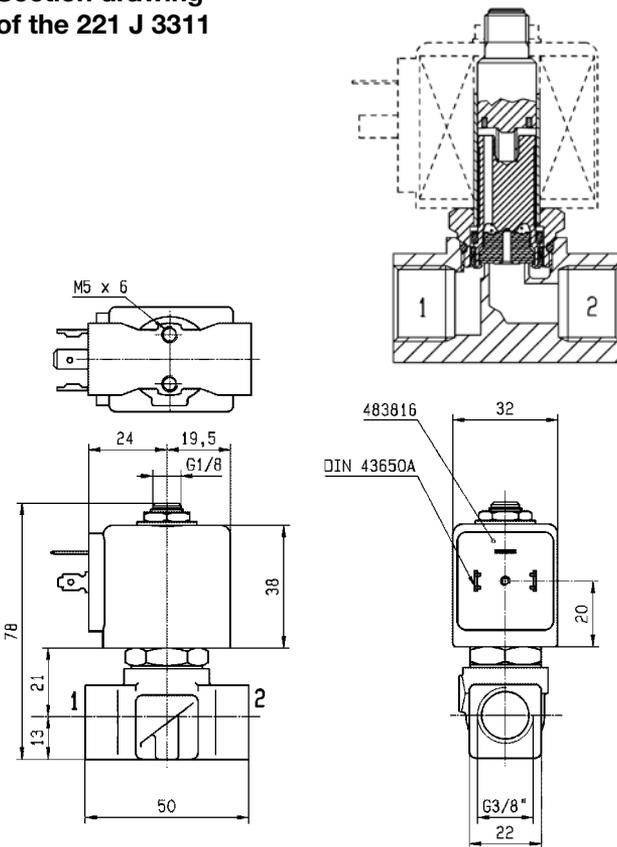
2/2 magnalift solenoid valve used for air control or air pulsing in all applications where extremely short response time and/ or long life expectancy are required.

Flow rate up to 40 Nm<sup>3</sup>/h (subsonic flow only) like: textile weaving looms, printing machines, sorting machines, bank note counting machines.

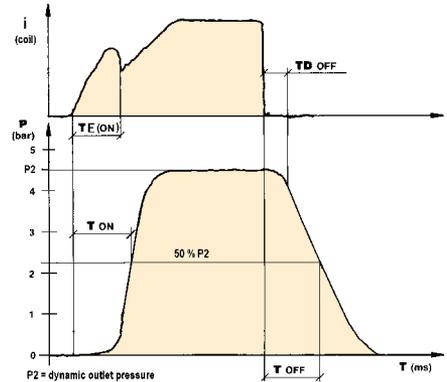
### Features

- 2P+E DIN 43650A plug connection
- Degree of protection IP65
- Guide rings assure high life expectancy
- High performance plunger with low residual magnetic effect and long life
- Shock absorber improves life expectancy of the valve
- PUR seat disc provides magnalift effect

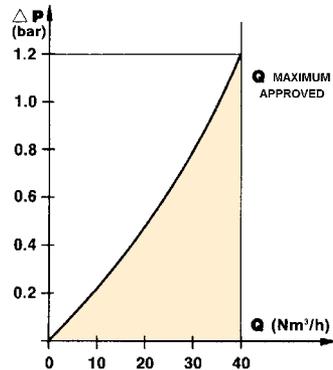
### Section drawing of the 221 J 3311



### Typical reponse times At 20 Hz (40% on)



### Flow rate (valve on 100%)



## Technical Data

<b>Function:</b>	2/2 solenoid valve closed when de-energized.		
<b>Design:</b>	Pilot operated poppet valve with magnalift.		
<b>Mounting:</b>	For direct pipe mounting or with the help of M5x6 mm screw (see dimensions).		
<b>Mounting position:</b>	Indifferent.		
<b>Material specifications:</b>	Forged brass body. Internal parts in stainless steel. Sealing material in PUR.		
<b>Range of admissible pressure drop:</b>	$\Delta p$ min.	= 0 bar	
	$\Delta p$ max.	= 7 bar	
<b>Response time (see p. 2):</b>	Conditions: voltage 24 VDC nominal, flow 34 Nm <sup>3</sup> /h. Reference pressure dynamic (orifice 2): 4.5 bar. Response times are increasing above starting from 300 millions cycles.		
<b>Switching on:</b>	TE on: 9.5 - 12 ms Electrical response time until the plunger is in fully attracted position. T on: 10-14 ms Filling time until the pressure has reached 50% of output pressure P2 (own volume of the valve, outlet port plugged.)		
<b>Switching off:</b>	TD off: 4 - 8 ms Closing time until the plunger is in the rest position. T off: 5,5 - 9,5 ms Emptying time until the pressure has dropped to 50% of P2 pressure. This response time is depending on user at the outlet port.		
<b>Cycling rate:</b>	Up to 30 Hz.		
<b>Life expectancy:</b>	> 500 millions cycles Conditions: Instrumentation dried and filtered air at 20 $\mu$ m, (dew point +2°C). P max. 5 bar nominal voltage 24 VDC vibrations 5 to 500 Hz.		
<b>Media:</b>	Instrumentation air (dried and unlubricated) filtered at 20 $\mu$ m.		
<b>Fluid temperature:</b>	Min. 0°C. Max. + 40°C.		
<b>Ambient temperature:</b>	0°C to +50°C.		
<b>Vibrations:</b>	Up to 1500 Hz, max. shocks 10 g. At max. vibration rating, life expectancy will decrease.		
<b>Electrical part:</b>	32 mm coil 483816 (14W DC) encapsulated in synthetic material. Connection with 3 pin DIN 43650 type A plug connector, degree of protection IP 65.		
<b>Solenoid duty:</b>	Relative duty time: 80% max. for cycle 30 Hz (33ms). 70% max. for cycle 20 Hz (50ms). 55% max. for cycle 10 Hz (100ms). 25% max. for cycle 1 hour (this valve can not work at ED 100%). $x \% = \frac{\text{Energized time}}{\text{Cycle time}} \div 100$		
<b>Housing:</b>	3 possibilities 2994/2995/299560.		
<b>Voltage:</b>	24 V DC.		
<b>Voltage tolerance:</b>	±10%.		
<b>Class of insulation material:</b>	Class F (155 °C).		
<b>Part kit:</b>	Nothing available		
<b>Port Size:</b>	G		3/8
<b>Orifice:</b>	mm		8
<b>Qmax:</b>	Nm <sup>3</sup> / h		40
<b>Admissible differential pressure:</b>	min.		0
	bar	Max.	7
<b>Maximum admissible fluid temperature:</b>	Air		40
<b>References N°:</b>	Valve	221 J 3311	
	Housing	2994	2995
	Coil	483816	299560
<b>Power consumption:</b>	W		14
<b>Weight:</b>	g		360

### 3-Way Solenoid Valve - Direct Acting

General application valves for dry or lubricated air, neutral gases and liquids



**Description:**

- 3-Way Solenoid Valve - Direct Acting - Normally Closed.
- Coil IP65 for 2 P + E plug according to DIN 43650 type A
- Power Consumption 8W (AC), 9W (DC).

**Applications:**

- This series is used in applications which require actuation and automatic discharge of moving systems.
- Typical applications can be found in: sterilizers, Cylinder actuation, air compressors, Diesel oil burners, pilot valves, water treatment installations.

**Temperature Range:**

- Min: -10°C | Max: see table

**Seals Material:**

- FKM, PCTFE

**Advantages:**

- Versatile product for many 2/2 NC v alve requiring applications, robust design.

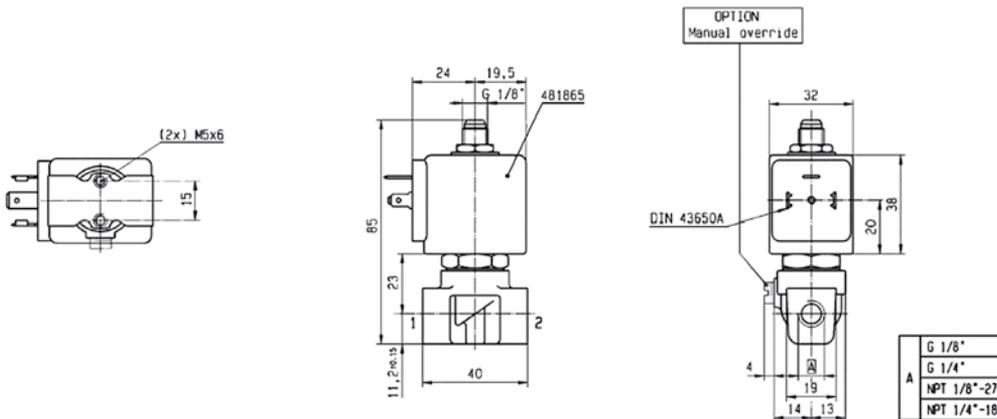
Port size	Orifice	K <sub>v</sub>	Admissible differential pressure (bar)		Fluid Temp. C°	Seal Material	Reference number			Options
			Min.	Max.			Valve	Housing	Coil	

**3-Way Solenoid Valve - Direct Acting - Normally Closed**

Normally CLOSED

1/8"	1.5	1.5	0	15	100°C	FKM	E131K14	2995	481865	-
1/8"	2.0	2.5 (3.5)*	0	10	100°C	FKM	131K16	2995	481865	-
1/8"	2.0	2.5 (3.5)*	0	10	100°C	FKM	131K1650	2995	481865	**
1/8"	2.5	3.5	0	7	100°C	FKM	E131K13	2995	481865	-
1/4"	0.8	0.3	0	40	75°C	PCTFE	131K05	2995	481865	-
1/4"	1.5	1.5	0	15	100°C	FKM	E131K04	2995	481865	-
1/4"	1.5	1.5	0	15	100°C	FKM	E131K0450	2995	481865	**
1/4"	2.0	2.5 (3.5)*	0	10	100°C	FKM	E131K06	2995	481865	-
1/4"	2.0	2.5 (3.5)*	0	10	100°C	FKM	E131K0650	2995	481865	**
1/4"	2.5	3.5	0	7	100°C	FKM	E131K03	2995	481865	-
1/4"	2.5	3.5	0	7	100°C	FKM	E131K0350	2995	481865	**

\* Kv for Exhaust side  
\*\* Manual override standard



Please consult the "How to Order" part at the end of each coil chapter.

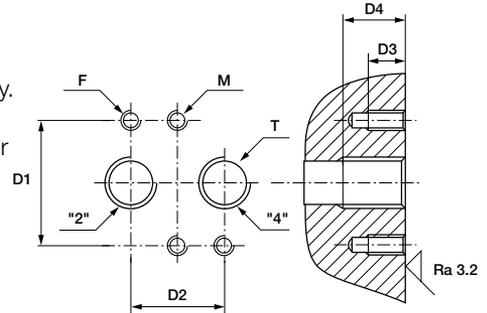
## Valves for Pneumatic Actuator Control

### NAMUR Interfaces 1/4" & 1/2"

NAMUR + piped versions in safe or dangerous areas.

The interface design is conform to the NAMUR standard and to the VDI/VDE 3845 recommendations of the actuator industry. It allows a compact design of the actuator/valve unit. In case of a 3/2 function, the air of the actuator spring chamber also flows through the pilot valve (re-breather function). This prevents corrosion of the actuator springs.

F	T	D1	D2	D3	D4 min.	M
		mm	mm	mm	mm	mm
M5	1/4	32	24	8	12	M5
M6	1/2	45	40	10	16	M6



F: 2 mounting holes - T: 2 actuators control port - M: 2 holes for dowel pins

- High flow: 1.250 l/min (1/4"), 3.000 l/min (1/2")
- Compact design
- Long life expectancy
- N3x & P3x Series compatible with any Parker Lucifer coil (ATEX or not) of electrical group 2 (8/9 W coils)
- Fail safe standard
- Reduced inventory (3/2 & 5/2 functions with the same valve on 341Nx5 series)
- Mechanical part of the valve ATEX certified according standard EN 13463-1 & -5

### General Information

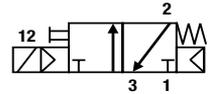
<b>Function:</b>	3/2, 5/2, 3/2 <=> 5/2 and 5/3 valves.
<b>Manual override:</b>	Standard on all versions.
<b>Design:</b>	Nxx & Pxx Series: Solenoid operated spool valve with combined spring and air return & external air pressure operated versions. B0x Series: Solenoid direct acting valve with spring return.
<b>Mounting:</b>	Nxx Series: For direct mounting on NAMUR interface 1/4" & 1/2" Pxx Series: Piped valves G1/4" & G1/2" Bxx Series: Equipped with a banjo bolt G1/8" or G1/4"
<b>Mounting position:</b>	Indifferent.
<b>Material specifications:</b>	Aluminium body. Internal parts of stainless steel. Sealing material from NBR.
<b>Range of admissible pressure drop:</b>	$\Delta p$ min. = see table. $\Delta p$ max. = 10 bar.
<b>Media:</b>	Dry or lubricated air.
<b>Fluid temperature:</b>	Min. 0°C Max. + 50°C
<b>Ambient temperature:</b>	-10°C to +50°C
<b>Electrical part: series</b>	N0x / P0x / Bxx Series are compatible with 22 mm coil 496131 / 496482 / 496637 N3x / P3x Series are compatible with 32/37/40 mm coils part of electrical group 2 (8/9W), including 481865 / 495870 / 495905 Series.
<b>Solenoid duty:</b>	100% ED.
<b>Voltage:</b>	481865 coil: 12 VDC , 24 VDC , 48 VDC , 110VDC, 24 V / 50 AC, 48 V / 50 AC, 110 V / 50 AC, 220-230V/50 AC, 115 V / 60 Hz AC, 230 V / 60 AC.
<b>Voltage tolerance:</b>	± 10% of nominal for 481865 coil.
<b>Class of insulation material:</b>	Class F for 481865 coil.
<b>Standards:</b>	Mechanical ATEX conform to EN 13463-1 & -5.

## Banjo Valves - G1/4" & G1/8" Series

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

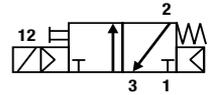
Port size	Orifice	Q <sub>N</sub>	Admissible differential pressure (bar)		Max. admissible fluid temperature (°C)		Seat disc	Reference number			Consumption Power (Watt)		Weight (g)	Dimensions Reference
			max.	AC-	min.	Air & Neutral gases		Valve	Housing	Coil	DC	AC		
G	mm	l/min	min	DC=	AC-									

#### 3/2 Solenoid operated - Spring return (monostable)



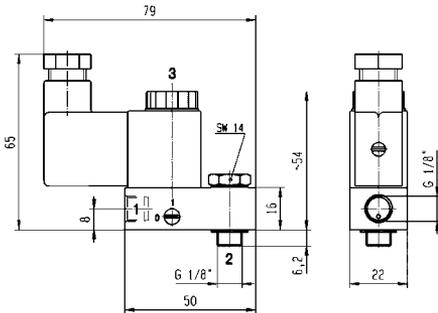
1/8	1.2	50	0	10	10	50	NBR	<b>131B14</b>	-	496131	3	3	140	26
1/8	1.2	50	0	10	10	50	NBR	<b>131B14</b>	-	496482	3	3	140	26
1/8	1.2	50	0	10	10	50	NBR	<b>131B14</b>	-	496637	3	3	140	26

#### 3/2 Solenoid operated - Spring return (monostable)

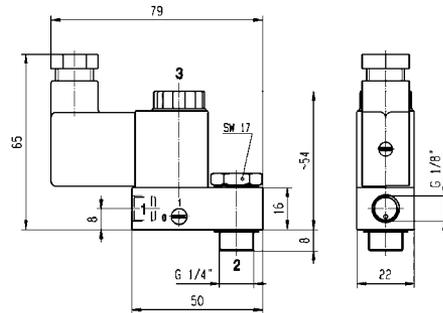


1/4	1.2	50	0	10	10	50	NBR	<b>131B04</b>	-	496131	3	3	160	27
1/4	1.2	50	0	10	10	50	NBR	<b>131B04</b>	-	496482	3	3	160	27
1/4	1.2	50	0	10	10	50	NBR	<b>131B04</b>	-	496637	3	3	160	27

#### Dimensions Reference 26



#### Dimensions Reference 27



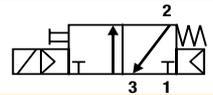
Please consult the "How to Order" part at the end of each coil chapter.

## NAMUR Valves G1/4" Series

### Solenoid Operated Versions N03-N05 Series with 22 mm Coil

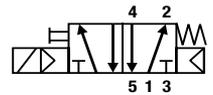
Port size	Orifice	Q <sub>N</sub>	Admissible differential pressure (bar)			Max. admissible fluid temperature (°C)	Seat disc	Reference number			Consumption Power (Watt)		Weight (g)	Dimensions Reference
			max.	DC=	AC=			Valve	Housing	Coil	DC	AC		
G	mm	l/min	min	DC=	AC=	Air & Neutral gases								

#### 3/2 Solenoid operated - Combined spring & air return (monostable)



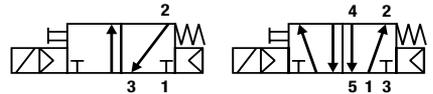
1/4	7	1250	2.5	10	10	50	NBR	<b>331N03</b>	-	496131	3	3	300	1
1/4	7	1250	2.5	10	10	50	NBR	<b>331N03</b>	-	496482	3	3	300	1
1/4	7	1250	2.5	10	10	50	NBR	<b>331N03</b>	-	496637	3	3	300	1

#### 5/2 Solenoid operated - Combined spring & air return (monostable)



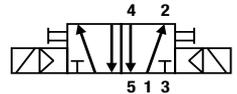
1/4	7	1250	2.5	10	10	50	NBR	<b>341N03</b>	-	496131	3	3	300	2
1/4	7	1250	2.5	10	10	50	NBR	<b>341N03</b>	-	496482	3	3	300	2
1/4	7	1250	2.5	10	10	50	NBR	<b>341N03</b>	-	496637	3	3	300	2

#### 3/2 <=> 5/2 with conversion plate - Solenoid operated Combined spring & air return (monostable)



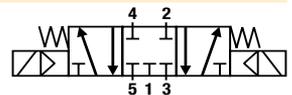
1/4	7	1250	2.5	10	10	50	NBR	<b>341N05</b>	-	496131	3	3	310	3
1/4	7	1250	2.5	10	10	50	NBR	<b>341N05</b>	-	496482	3	3	310	3
1/4	7	1250	2.5	10	10	50	NBR	<b>341N05</b>	-	496637	3	3	310	3

#### 5/2 Solenoid operated and return (bistable)



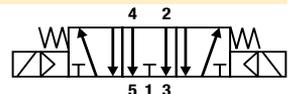
1/4	7	1250	2.5	10	10	50	NBR	<b>347N03</b>	-	496131	3	3	430	4
1/4	7	1250	2.5	10	10	50	NBR	<b>347N03</b>	-	496482	3	3	430	4
1/4	7	1250	2.5	10	10	50	NBR	<b>347N03</b>	-	496637	3	3	430	4

#### 5/3 W1 closed in center position - Solenoid operated and return



1/4	7	1250	2.5	10	10	50	NBR	<b>342N03</b>	-	496131	3	3	430	4
1/4	7	1250	2.5	10	10	50	NBR	<b>342N03</b>	-	496482	3	3	430	4
1/4	7	1250	2.5	10	10	50	NBR	<b>342N03</b>	-	496637	3	3	430	4

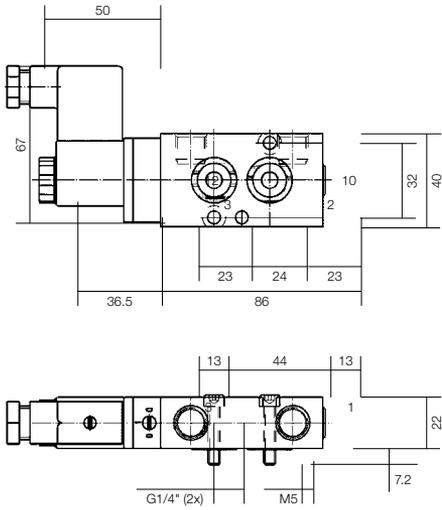
#### 5/3 W3 exhausted in center position Solenoid operated and return



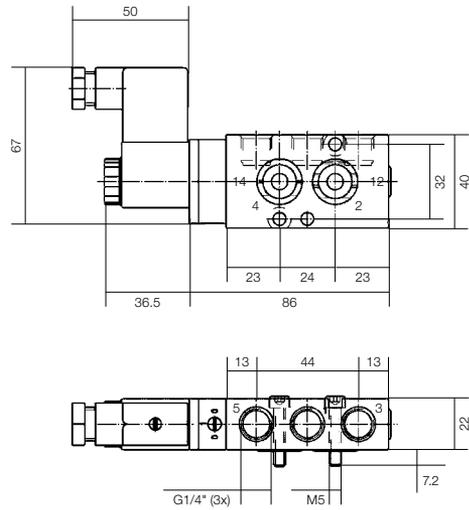
1/4	7	1250	2.5	10	10	50	NBR	<b>343N03</b>	-	496131	3	3	430	4
1/4	7	1250	2.5	10	10	50	NBR	<b>343N03</b>	-	496482	3	3	430	4
1/4	7	1250	2.5	10	10	50	NBR	<b>343N03</b>	-	496637	3	3	430	4

Please consult the "How to Order" part at the end of each coil chapter.

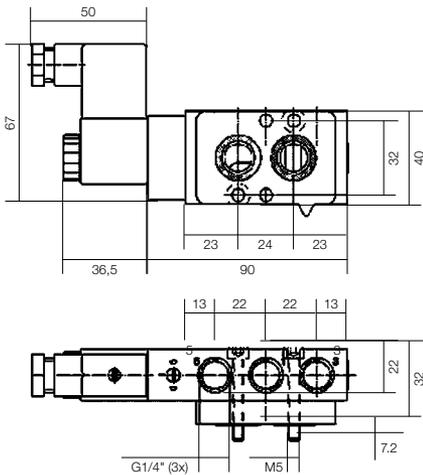
**Dimensions Reference 1**



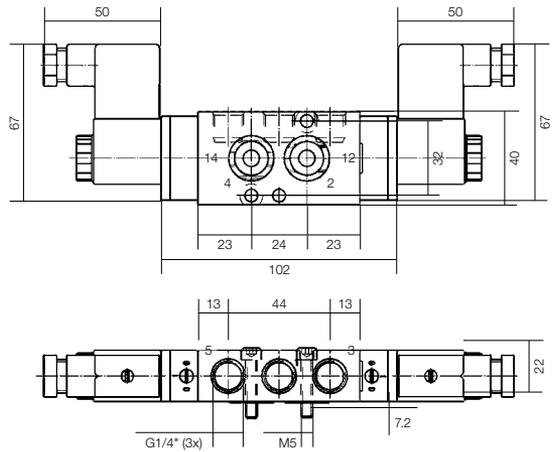
**Dimensions Reference 2**



**Dimensions Reference 3**



**Dimensions Reference 4**



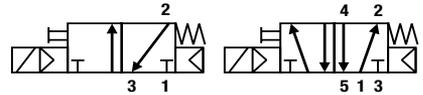
Please consult the "How to Order" part at the end of each coil chapter.

## NAMUR Valves G1/4" Series

### Solenoid Operated Versions N33-N35 Series with 32 / 37 / 40 mm Coil

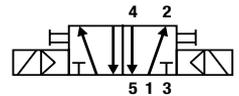
Port size	Orifice	Q <sub>N</sub>	Admissible differential pressure (bar)		Max. admissible fluid temperature (°C)	Seat disc	Reference number			Consumption Power (Watt)		Weight (g)	Elect. Dim. Group Ref.	
			max.	AC~			Valve	Housing	Coil	DC	AC			
G	mm	l/min	min	DC=	AC~	Air & Neutral gases								

#### 3/2 <=> 5/2 with conversion plate - Solenoid operated Combined spring & air return (monostable)



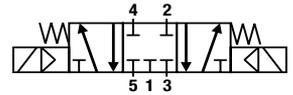
1/4	7	1250	2.5	10	10	50	NBR	<b>341N35</b>	<b>2995</b>	481865	9	8	480	2	5
1/4	7	1250	2.5	10	10	50	NBR	<b>341N35</b>	<b>2995</b>	495870	9	8	700	2	-
1/4	7	1250	2.5	10	10	50	NBR	<b>341N35</b>	-	495905	8	8	740	2	-

#### 5/2 Solenoid operated and return (bistable)



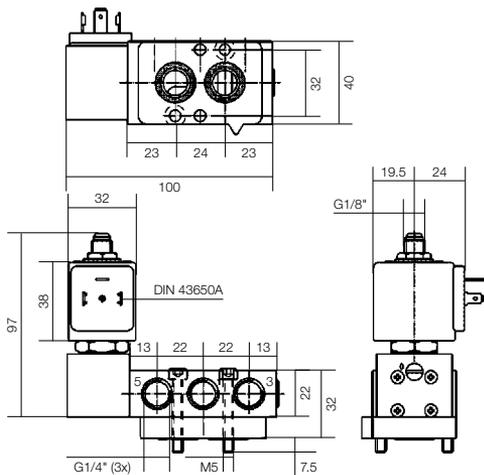
1/4	7	1250	2.5	10	10	50	NBR	<b>347N33</b>	<b>2995</b>	481865	9	8	750	2	6
1/4	7	1250	2.5	10	10	50	NBR	<b>347N35</b>	<b>2995</b>	495870	9	8	1190	2	-
1/4	7	1250	2.5	10	10	50	NBR	<b>347N33</b>	-	495905	8	8	1270	2	-

#### 5/3 W1 Closed in center position Solenoid operated and return

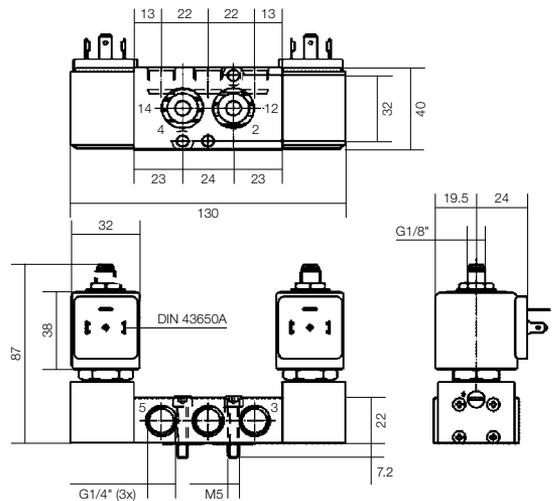


1/4	7	1250	2.5	10	10	50	NBR	<b>342N33</b>	<b>2995</b>	481865	9	8	750	2	6
1/4	7	1250	2.5	10	10	50	NBR	<b>342N35</b>	<b>2995</b>	495870	9	8	1190	2	-
1/4	7	1250	2.5	10	10	50	NBR	<b>342N33</b>	-	495905	8	8	1270	2	-

#### Dimensions Reference 5



#### Dimensions Reference 6

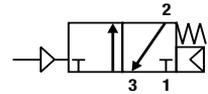


## NAMUR Valves G1/4" Series

### External Pressure Air Operated Series 5xx N03 Series

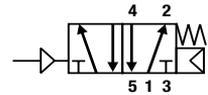
Port size	Orifice	Q <sub>N</sub>	Admissible differential pressure (bar)			Max. admissible fluid temperature (°C)		Seat disc	Reference number			Consumption Power (Watt)		Weight (g)	Dimensions Reference
			max.	DC=	AC~	min. = 0°C	Air & Neutral gases		Valve	Housing	Coil	DC	AC		
G	mm	l/min	min	DC=	AC~	Air & Neutral gases		Valve	Housing	Coil	DC	AC			

**3/2 External pressure air operated**  
**Combined spring & air return (monostable)**  
**External pressure supply 2.5 to 10 bar**



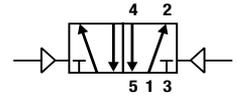
1/4	7	1250	2.5	10	10	50	NBR	531N03	-	w/o	-	-	210	7
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**5/2 External pressure air operated**  
**Combined spring & air return (monostable)**  
**External pressure supply 2.5 to 10 bar**



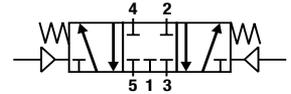
1/4	7	1250	2.5	10	10	50	NBR	541N03	-	w/o	-	-	210	8
-----	---	------	-----	----	----	----	-----	--------	---	-----	---	---	-----	---

**5/2 External pressure air operated**  
**External pressure air return (bistable)**  
**External pressure supply 2.5 to 10 bar**



1/4	7	1250	2.5	10	10	50	NBR	547N03	-	w/o	-	-	240	9
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**5/3 W1 closed in center position - External pressure air operated**  
**External pressure air return**  
**External pressure supply 2.5 to 10 bar**

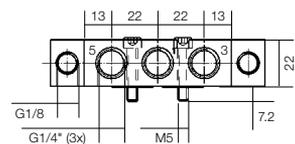
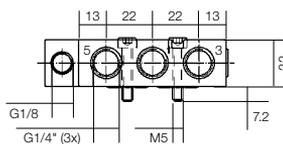
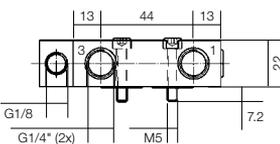
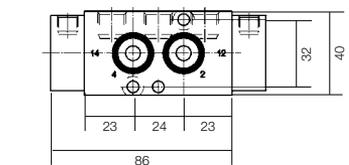
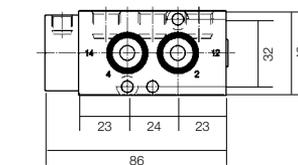
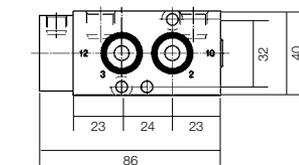


1/4	7	1250	2.5	10	10	50	NBR	542N03	-	w/o	-	-	240	9
-----	---	------	-----	----	----	----	-----	--------	---	-----	---	---	-----	---

Dimensions Reference 7

Dimensions Reference 8

Dimensions Reference 9





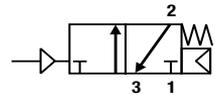


## NAMUR Valves G1/2" Series

### External Pressure Air Operated Series 5 xx N04 Series

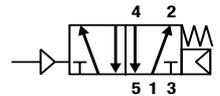
Port size	Orifice	Q <sub>N</sub>	Admissible differential pressure (bar)			Max. admissible fluid temperature (°C)	Seat disc	Reference number			Consumption Power (Watt)		Weight (g)	Dimensions Reference
			max.	DC=	AC~			Valve	Housing	Coil	DC	AC		
G	mm	l/min	min	DC=	AC~	Air & Neutral gases								

**3/2 External pressure air operated**  
**Combined spring & air return (monostable)**  
**External pressure supply 2.5 to 10 bar**



1/2	12	3000	2.5	10	10	50	NBR	531N04	-	w/o	-	-	620	16
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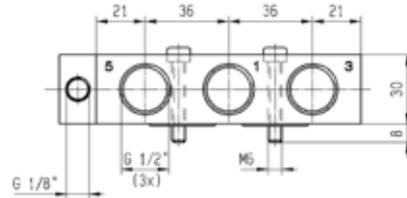
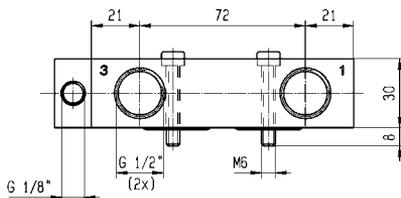
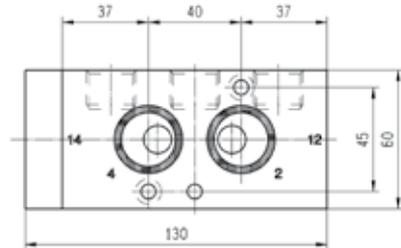
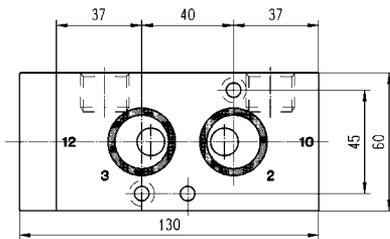
**5/2 External pressure air operated**  
**Combined spring & air return (monostable)**  
**External pressure supply 2.5 to 10 bar**



1/2	12	3000	2.5	10	10	50	NBR	541N04	-	w/o	-	-	600	17
-----	----	------	-----	----	----	----	-----	--------	---	-----	---	---	-----	----

Dimensions Reference 16

Dimensions Reference 17



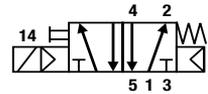
Please consult the "How to Order" part at the end of each coil chapter.

## Piped Valves - G1/4" Series

### Solenoid Operated Versions P03 Versions with 22 mm Coil

Port size	Orifice	Q <sub>N</sub>	Admissible differential pressure (bar)		Max. admissible fluid temperature (°C)	Seat disc	Reference number			Consumption Power (Watt)		Weight (g)	Dimensions Reference
			max.	AC~			Valve	Housing	Coil	DC	AC		
G	mm	l/min	min	DC=	AC~	Air & Neutral gases							

#### 5/2 Solenoid operated Combined spring & air return (monostable)



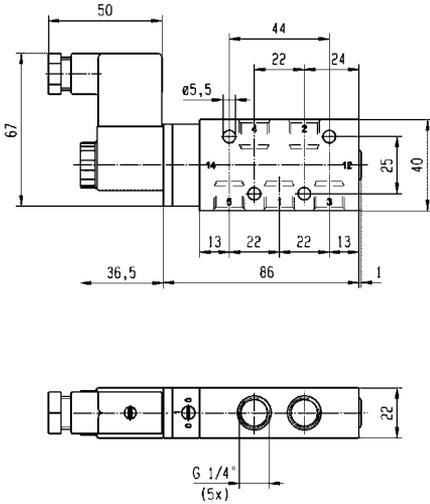
1/4	7	1250	2.5	10	10	50	NBR	<b>341P03</b>	-	496131	3	3	250	18
1/4	7	1250	2.5	10	10	50	NBR	<b>341P03</b>	-	496482	3	3	250	18
1/4	7	1250	2.5	10	10	50	NBR	<b>341P03</b>	-	496637	3	3	250	18

#### 5/2 Solenoid operated and return (bistable)

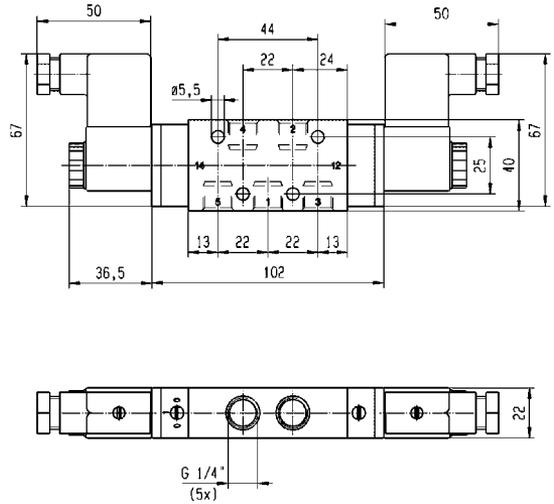


1/4	7	1250	2.5	10	10	50	NBR	<b>347P03</b>	-	496131	3	3	350	19
1/4	7	1250	2.5	10	10	50	NBR	<b>347P03</b>	-	496482	3	3	350	19
1/4	7	1250	2.5	10	10	50	NBR	<b>347P03</b>	-	496637	3	3	350	19

Dimensions Reference 18



Dimensions Reference 19



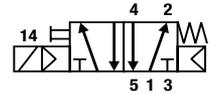
Please consult the "How to Order" part at the end of each coil chapter.

## Piped Valves - G1/4" Series

### Solenoid Operated Versions P33 Versions with 32-37-40 mm Coil

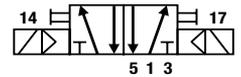
Port size	Orifice	Q <sub>N</sub>	Admissible differential pressure (bar)		Max. admissible fluid temperature (°C)	Seat disc	Reference number			Consumption Power (Watt)		Weight (g)	Elect. Dim. Group Ref.	
			max.	AC~			Valve	Housing	Coil	DC	AC			
G	mm	l/min	min	DC=	AC~	Air & Neutral gases								

#### 5/2 Solenoid operated Combined spring & air return (monostable)



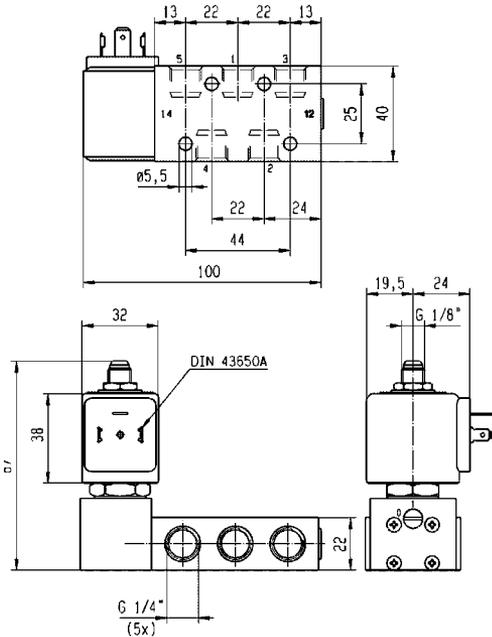
1/4	7	1250	2.5	10	10	50	NBR	<b>341P33</b>	2995	481865	9	8	470	2	20
1/4	7	1250	2.5	10	10	50	NBR	<b>341P33</b>	2995	495870	9	8	690	2	-
1/4	7	1250	2.5	10	10	50	NBR	<b>341P33</b>	-	495905	8	8	730	2	-

#### 5/2 Solenoid operated and return (bistable)

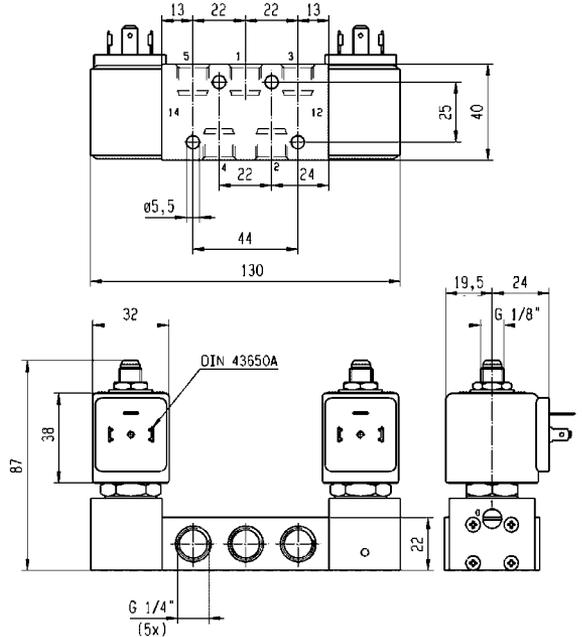


1/4	7	1250	2.5	10	10	50	NBR	<b>347P33</b>	2995	481865	9	8	750	2	21
1/4	7	1250	2.5	10	10	50	NBR	<b>347P33</b>	2995	495870	9	8	1190	2	-
1/4	7	1250	2.5	10	10	50	NBR	<b>347P33</b>	-	495905	8	8	1270	2	-

#### Dimensions Reference 20



#### Dimensions Reference 21

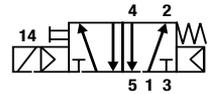


## Piped Valves - G1/2" Series

### Solenoid Operated Versions P04 Versions with 22 mm Coil

Port size	Orifice	Q <sub>N</sub>	Admissible differential pressure (bar)			Max. admissible fluid temperature (°C)		Seat disc	Reference number			Consumption Power (Watt)		Weight (g)	Dimensions Reference
			min	DC=	AC=	min.	max.		Air & Neutral gases	Valve	Housing	Coil	DC		
G	mm	l/min	min	DC=	AC=	Air & Neutral gases		Valve	Housing	Coil	DC	AC			

#### 5/2 Solenoid operated Combined spring & air return (monostable)



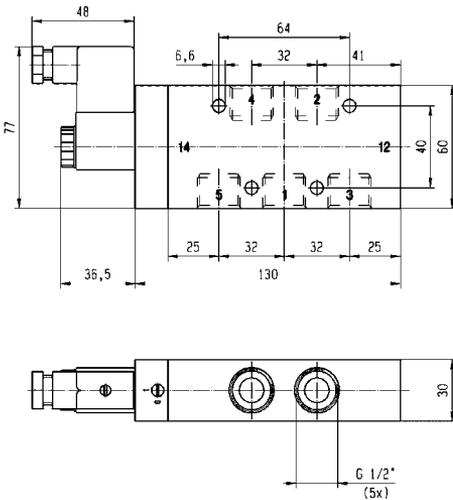
1/2	12	3000	2.5	10	10	50	NBR	<b>341P04</b>	-	496131	3	3	670	22
1/2	12	3000	2.5	10	10	50	NBR	<b>341P04</b>	-	496482	3	3	670	22
1/2	12	3000	2.5	10	10	50	NBR	<b>341P04</b>	-	496637	3	3	670	22

#### 5/2 Solenoid operated and return (bistable)

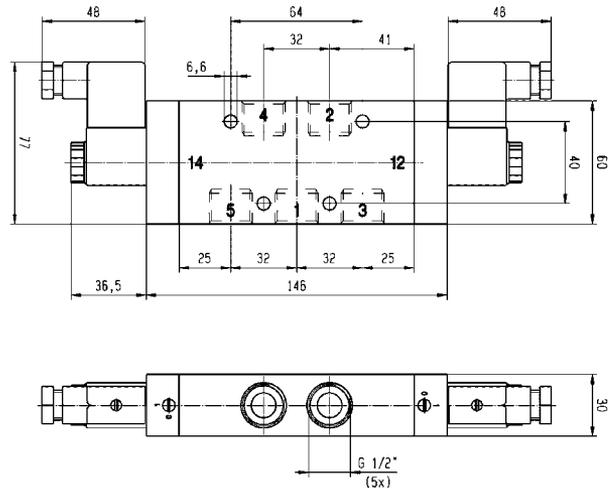


1/2	12	3000	2.5	10	10	50	NBR	<b>347P04</b>	-	496131	3	3	840	23
1/2	12	3000	2.5	10	10	50	NBR	<b>347P04</b>	-	496482	3	3	840	23
1/2	12	3000	2.5	10	10	50	NBR	<b>347P04</b>	-	496637	3	3	840	23

#### Dimensions Reference 22



#### Dimensions Reference 23



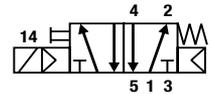
Please consult the "How to Order" part at the end of each coil chapter.

## Piped Valves - G1/2" Series

### Solenoid Operated Versions P34 Versions with 32/37/40 mm Coil

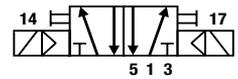
Port size	Orifice	Q <sub>N</sub>	Admissible differential pressure (bar)		Max. admissible fluid temperature (°C)	Seat disc	Reference number			Consumption Power (Watt)		Weight (g)	Elect. Dim. Group	Ref.
			max.	AC~			Valve	Housing	Coil	DC	AC			
G	mm	l/min	min	DC=	AC~	Air & Neutral gases								

#### 5/2 Solenoid operated Combined spring & air return (monostable)



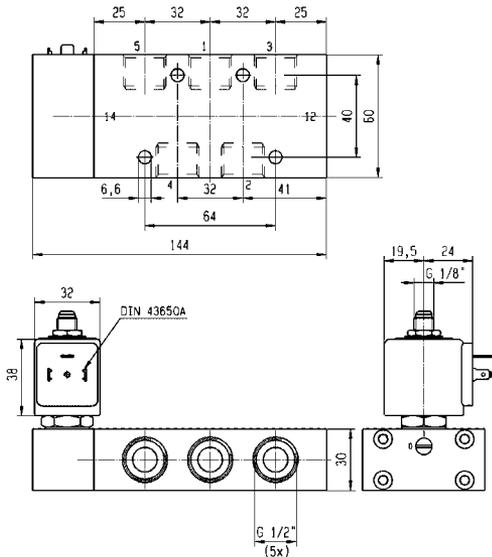
1/2	12	3000	2.5	10	10	50	NBR	<b>341P34</b>	2995	481865	9	8	900	2	24
1/2	12	3000	2.5	10	10	50	NBR	<b>341P34</b>	2995	495870	9	8	1120	2	-
1/2	12	3000	2.5	10	10	50	NBR	<b>341P34</b>	-	495905	8	8	1160	2	-

#### 5/2 Solenoid operated and return (bistable)

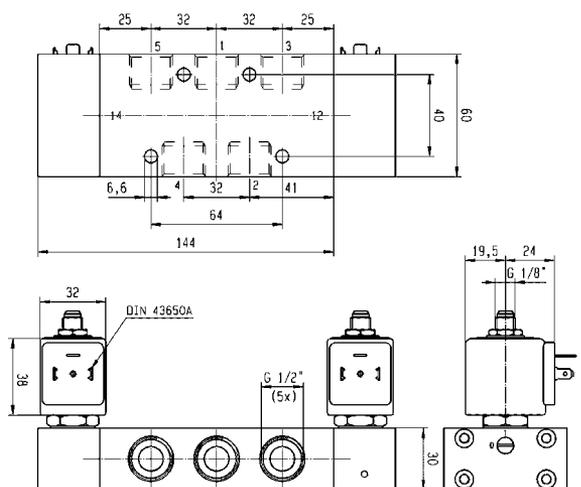


1/2	12	3000	2.5	10	10	50	NBR	<b>347P34</b>	2995	481865	9	8	1240	2	25
1/2	12	3000	2.5	10	10	50	NBR	<b>347P34</b>	2995	495870	9	8	1680	2	-
1/2	12	3000	2.5	10	10	50	NBR	<b>347P34</b>	-	495905	8	8	1760	2	-

#### Dimensions Reference 24



#### Dimensions Reference 25



Please consult the "How to Order" part at the end of each coil chapter.

## Coils and Spare Parts Informations

### Coils 22 mm for N03-N05 Series

#### Safe Area & ATEX Zone 22

Ref. 496131 / 496482 / 496637

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 73/23/EC .

- Power: 3W
  - Insulation Class: F (155°C)
  - Degree of Protection: IP65 (with plug)
  - Duty Cycle: 100% ED
  - Ambient Temperature: -10°C to 50°C
- 3 different types are available:**
- Ref. 496131 for a safe area without plug
  - Ref. 496482 for a safe area with plug
  - Ref. 496637 for an ATEX area Zone 22 

496637 coil series with connection 2P + G when mounted together with the supplied Pg9 plug (delivered with the coil) are suitable for use in dangerous areas (dust Zone 22) according to the European directive ATEX 94/9/C. Protection mode: Ex tD A22 IP65 - T95°C

Available Voltages	Safe area without DIN plug Order Code	Safe area with DIN plug Order Code	ATEX Zone 22 EX II 3D Order Code
12 VDC	496131 C1	496482 C1	496637 C1
24 VDC	496131 C2	496482 C2	496637 C2
48 VDC	496131 C4	496482 C4	496637 C4
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

The housing kit is already included into the coil reference, so it's not needed to add it with the order code:

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

**Example: 341N03 - 496131 C2**

Valves and coils may be ordered also separately.

## Coils 32 mm / 37 mm / 40 mm for N33-N34-N35 Series

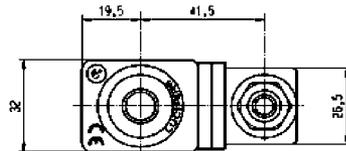
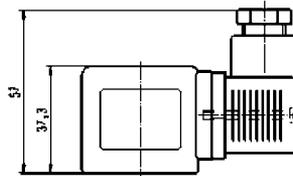
### Safe Area

Ref. 481865

N3x series are compatible with any Parker Lucifer coil part of electrical group 2. That group includes many different coils for safe areas or areas submitted to ATEX certifications. These coils are part of the 8/9W class. These coils with connection for 2P+G DIN 43650 A plug are encapsulated in synthetic material, conform to the IEC/CENELEC safety standards and comply with European low voltage directive 73/23/EC.

Safe Area

- Power: 8W (AC) 9W (DC)
- Insulation Class: F (155°C)
- Degree of Protection: IP65 (with plug)
- Duty Cycle: 100% ED
- Voltage Tolerance -10% / +10%
- Ambient Temperature -40°C / +50°C
  - The application can be limited also by the temperature range of the valve



Available Voltages	Order Code
12 VDC	481865 C1
24 VDC	481865 C2
48 VDC	481865 C4
110 VDC	481865 C5
24/50 VAC	481865 A2
48/50 VAC	481865 A4
110/50 VAC	481865 A5
220-230/50 VAC	481865 3D
380/50 VAC	481865 A9
24/60 VAC	481865 B2
115/60 VAC	481865 K8
230/60 VAC	481865 J3



### How to Order

This coil must be used together with a housing kit which includes a nut, a plate, and a washer. Housing Kit Order Code: 2995

Valve Reference Number - Housing Reference - Coil Reference - Voltage Code = Order Code

**Example: 341N35 - 2995 - 481865 C2**

Valves and coils may be ordered also separately.

## Coils and Spare Parts Informations

### Coils 32 mm / 37 mm / 40 mm for N33-N34-N35 Series

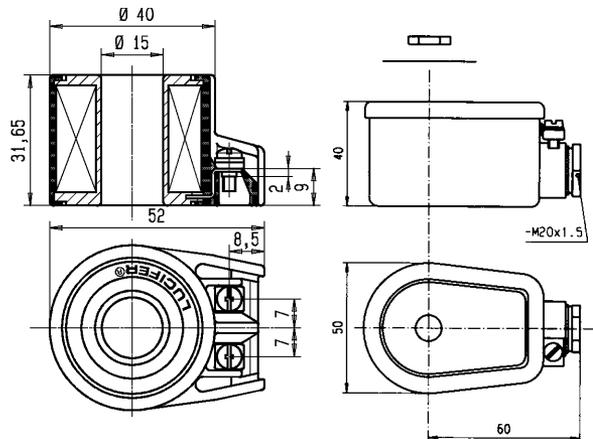
### Safe Area Coil 481000 Series with 4538 Watertight and dust proof housing IP67

Ref. 481000

Coil 481000 series is encapsulated in synthetic material. Electrical connection is made with screw terminals for wire up to 1.5 mm. This coil conforms to the IEC/CENELEC safety standards and complies with European low voltage directive 73/23/EC. It must be used with a metallic housing.

- Power: 8W
- Insulation Class: F (155°C)
- Degree of Protection: IP67 (with 4538 housing)
- Duty Cycle: 100%
- Voltage Tolerance -10%/+10%
- Ambient Temperature -40°C/+50°C
- The application can be limited also by the temperature range of the valve

Available Voltages	Order Code
12 VDC	481000 C1
24 VDC	481000 C2
48 VDC	481000 C4
110 VDC	481000 C5
24/50 VAC	481000 A2
48/50 VAC	481000 A4
110-115/50 VAC	481000 OA
220-230/50 VAC	481000 3D
380/50-440/60 VAC	481000 5P
24/60 VAC	481000 B2
110-115/60 VAC	481000 6J
220-240/60 VAC	481000 4K
42/50-48/60 VAC	481000 S7



## Housing 4538

This enclosure is dust and water proof. It corresponds to the protection degree IP67 according to IEC/EN60529. Corrosion resistant, the metallic housing offers good protection for the coil against shocks. It can be 360° orientable. This housing must be equipped with 481000 series coil.

Material: galvanized passivated steel - Degree of protection IP67 according to IEC/EN 60529 - Electrical connection: cable connection by cable gland according to DIN46320. Cable with outer diameter 6.5-13.5 mm (M20x1.5) can be simply sealed using a rubber gland resilient sealing rings. The enclosure is internally and externally fitted with grounding and earthing screw terminals.

## How to Order

Valve Reference Number - Housing Reference - Coil Reference - Voltage Code = Order Code

**Example: 331N34 - 4538 - 481000C2**

Valves and coils may be ordered also separately.

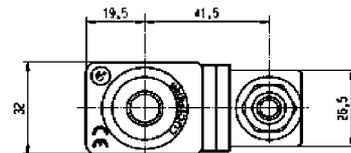
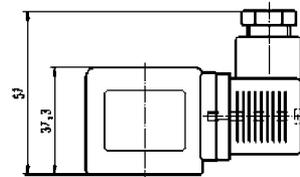
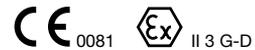
## Coils 32 mm / 37 mm / 40 mm for N33-N34-N35 Series

ATEX Zone 2-22

REF. 495870

This coil with connection 2P+G - when mounted together with the supplied Pg 9 plug (delivered with the coil), is suitable for use in Gas and Dust dangerous areas (Zone 2-22), according to the European directive **ATEX 94/9/C. Certificate LCIE 05 ATEX 6003 X - Protection mode: non sparking / limited energy solenoid**

- II 3 G - Ex nAC IIC T3 / T4
- II 3 D - Ex tD A22 IP65 - T 195°C / T 130°C
- Power: 8W (AC) 9W (DC)
- Insulation Class: F (155°C)
- Degree of Protection: IP65 (with plug)
- Duty Cycle: 100% ED
- Voltage Tolerance -10%/+10%
- Ambient temperature
  - T3 (gaz) T 195°C (dust) -40°C/+65°C
  - T4 (gaz) T 130°C (dust) -40°C/+50°C
  - The application can be limited also by the temperature range of the valve



Available Voltages	Order Code
24 VDC	495870 C2
48 VDC	495870 C4
110 VDC	495870 C5
24/50 VAC	495870 A2
48/50 VAC	495870 A4
110/50 VAC	495870 A5
220-230/50 VAC	495870 3D



### How to Order

This coil must be used together with a housing kit which includes a nut, a plate, and a washer. Housing kit order code: 2995

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

**Example: 331N34 - 2995 - 495870 A5**

Valves and coils may be ordered also separately.

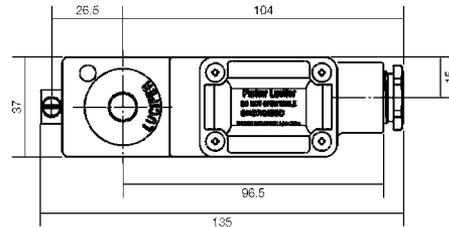
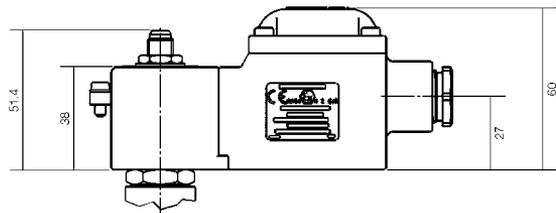
## Coils 32 mm / 37 mm / 40 mm for N33-N34-N35 Series

### ATEX Zone 1-21

Ref. 495905

This coil is suitable for use in Gas and Dust dangerous areas (Zone 1-21), according to the European directive **ATEX 94/9/C**. It's also IECEx certified according to the IECEx Scheme. **Certificate LCIE 02 ATEX 6451 X - Protection modes: Explosionproof solenoids with flameproof enclosure / encapsulation "d mb"**

- II 2 G - Ex d mb IIC T4
- II 2 D - Ex tD A21 IP67 - T 130°C
- Insulation Class H (180°C)
- Power: 8W (AC-DC)
- Degree of Protection IP67
- Duty Cycle 100%
- Voltage Tolerance -10%/+10%
- Ambient Temperature: -40°C/+65°C
- The application can be limited also by the temperature range of the valve



Available Voltages	Order Code
24 VDC	495905 C2
48 VDC	495905 C4
110 VDC	495905 C5
24/50 VAC	495905 A2
48/50 VAC	495905 A4
110/50 VAC	495905 E5
220-230/50 VAC	495905 3D
115/60	495905 E5
240/60	495905 B8

Electric connection is done in the connection box on an easily accessible connector terminals.  
M20x1.5 Cable gland



### How to Order

The housing kit is already included into the coil reference, so it's not needed to add it in the order code:  
Valve Reference Number - Coil Reference - Voltage code = Order code

**Example: 347N33 - 495905 C2**

Valves and coils may be ordered also separately.

## Coils 32 mm / 37 mm / 40 mm for N33-N34-N35 Series

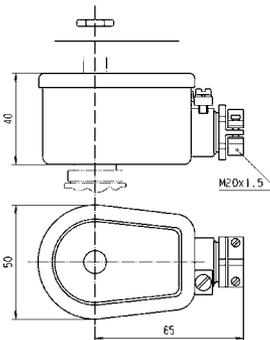
ATEX Solutions Zone 1-21

Ref. 483371 & 494040

These coils are suitable for use in Gas and Dust dangerous areas (Zone 1-21), according to the European directive **ATEX 94/9/C**. **Protection mode: encapsulated electrical parts with increased safety.**

Reference		483371 or HZ06	494040 or HZ23
<b>Approval</b>		LCIE 02 ATEX 6011 X	
<b>Type of protection</b>		LCIE 02 ATEX 6013 X	
Gas		II 2 G - Ex e mb II T4	II 2 G - Ex e mb II T3
Dust		II 2 D - Ex tD A21 T 130°C	II 2 D - Ex tD A21 T 195°C
<b>Degree of protection</b>		IP67	
<b>Ambient temperature</b>		-40°C to +65°C	-40°C to +65°C
The application is limited also by the temperature range of the valve			
<b>Class of insulation</b>		F (155°)	H (180°)
<b>Electrical connection</b>		By special cable gland or M20x1.5 "Ex e" on screw terminals for wires up to 1.5 mm <sup>2</sup> . Cables with outside diameter 6.5 mm to 13.5 mm can be simply sealed using the rubber gland with resilient sealing rings supplied.	
<b>Elect. Power</b>	DC Pn (hot)	8 W	8 W
	P (cold) 20°C	9 W	9 W
	AC Pn (holding)	8 W	8 W
		32 VA (9 W)	32 VA (9 W)
<b>Voltage tolerance</b>		Tolerance -10/ +10% of the nominal voltage	
<b>Solenoid duty</b>		Continuous duty solenoid (ED 100%)	

Available Voltages	Order Code	Order Code
6 VDC	483371 C0	-
12 VDC	483371 C1	-
24 VDC	483371 C2	494040 C2
36 VDC	483371 C3	-
48 VDC	483371 C4	-
60 VDC	483371 M3	-
110 VDC	483371 C5	-
125 VDC	483371 3N	494040 3N
220 VDC	483371 C7	494040 C7
12/50 VAC	483371 A1	-
24/50 VAC	483371 A2	494040 A2
48/50 VAC	483371 A4	-
110-115/50 VAC	483371 0A	494040 0A
220-230/50	483371 3D	494040 3D
24/60 VAC	483371 B2	-
110-115/60 VAC	483371 6J	-
220-240/60 VAC	483371 4K	-
380/50-440/60 VAC	-	494040 5P



**Fuses:** Both electrical 483371... and 494040... parts have to be connected in series with a safety fuse according to CEI 60127-3.

483371...

DC: 24V / 400mA - 48V / 250mA  
110V / 100mA

AC: 24V / 630mA - 48V / 315mA  
110/115V / 160mA  
220/230V / 80mA

494040...

DC: 24V / 400mA - 125V / 80mA  
48V / 220V - 63mA

AC: 24V / 630mA - 48V / 315mA  
110/115V / 160mA  
220/230V / 80mA

### How to Order

The housing kit is already included into the coil reference, so it's not needed to add it in the order code:  
Valve Reference Number - Coil Reference - Voltage code = Order code

**Example: 347N33 - 483371C2**

Valves and coils may be ordered also separately.

## Spare Parts Mounting Kit and Accessories

### Kit for G1/4" Models without conversion plate (N x 3 Series)



Kit includes the 2 mounting screws M5 x 25 A2, the dowel pin M5 x 10 A2, the 2 O-rings NBR 15 x 2.5

**Order code: 496132**

### Kit for G1/4" Models with conversion plate (N x 5 Series)



Kit includes the 2 mounting screws M5 x 35 A2, the dowel pin M5 x 20 A2, the conversion plate equipped with its seals

**Order code: 496742 (equipped plate)**

**Order code: 496852 (screws + pin)**

### Kit for G1/2" Models (N x 4 Series)



Kit includes the 2 mounting screws M6 x 35 A2, the dowel pin M6 x 12 A2, the 2 O-rings NBR 24 x 3

**Order code: 496133**

## Exhaust Flow Regulators



Material Body:	Brass	Filter element:	Sintered bronze
Spring:	Stainless Steel	Seal:	NBR

**G1/8" Order code: 496551**

**G1/4" Order code: 496552**

**G1/2" Order code: 496553**



### Connector for 22 mm Coil

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Connector DIN43650 AB Pg9 2P+E

**Order code: 481043**



### Housing for 22 mm Coil

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Plastic nut with O-ring

**Order code: 3125**



### Connector for 32 mm Coil

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Connector DIN43650 AA Pg9 2P+E

**Order code: 486586**

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

Fluids:	Lubricated or non lubricated air and neutral gases Recommended filtration: 50 µm
Temperature range:	Ambient: 0 to +50 °C Fluid: 0 to +50 °C
Inlet pressure range:	1 to 12 bar (the inlet pressure must always be at least 1 bar above the regulated pressure)
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; standard for 0 - 10 bar; adjustable for Comfort versions Analog 4 - 20 mA; standard for 0 - 10 bar; adjustable for Comfort versions
Outlet sensor signal: (Comfort versions only)	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: <ul style="list-style-type: none"> <li>■ Adjustable pressure error (+/-)</li> <li>■ Adjustable delay ON</li> <li>■ Adjustable delay OFF</li> <li>■ Adjustable logic (+/-)</li> </ul>
Max. flow:	G1/4: 70 m³/h G1/2: 150 m³/h
Indicative response time: Filling 2 to 4 bar: Filling 2 to 8 bar: Emptying 4 to 2 bar: Emptying 8 to 2 bar:	With a volume of 330 cm³ at the outlet of the regulator G1/4 ~ 50 msec G1/2 ~ 60 msec G1/4 ~ 100 msec G1/2 ~ 120 msec G1/4 ~ 70 msec G1/2 ~ 90 msec G1/4 ~ 130 msec G1/2 ~ 190 msec
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:	Basic: M12 - 4 pin; male connector power supply/control signal Comfort: M12 - 8 pin; male connector power supply/control signal M12 - 5 pin; male connector communication
Life expectancy:	> 50 Mio changes of control signal steps
Mounting position:	Indifferent (recommended position: upright; electronic part on top)
Resistance to vibrations:	30 g in all directions
Protection index:	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

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

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

Fluids:	Lubricated or non lubricated air and neutral gases Recommended filtration: 50 µm		
Temperature range:	Ambient: 0 to +50 °C Fluid: 0 to +50 °C		
Inlet pressure range:	1 to 12 bar - 1 to 14 bar - 1 to 21 bar (the inlet pressure must always be at least 1 bar above the regulated pressure)		
Outlet pressure range:	0.05 to 10 bar, 0.1 to 1 bar, 0.1 to 20 bar		
Hysteresis:	≤ 100 mbar if P inlet ≤ 10 bar ≤ 200 mbar if P inlet > 10 bar		
Air consumption at constant control signal:	None		
Supply voltage:	24 V DC ± 15 % (Max. ripple 1 V)		
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; standard for 0 - 10 bar; adjustable Analog 4 - 20 mA; standard for 0 - 10 bar; adjustable		
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: <ul style="list-style-type: none"> <li>■ Adjustable pressure error (+/-)</li> <li>■ Adjustable delay ON</li> <li>■ Adjustable delay OFF</li> <li>■ Adjustable logic (+/-)</li> </ul>		
Max. flow:	G1/2": 150 m³/h - G1": 1 000 m³/h - G2">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 50mV, the regulated pressure drops automatically to 0 bar atmospheric pressure (for pressure ranges from 0-10bar, 100mV 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 Mio changes of control signal steps		
Mounting position:	Indifferent (recommended position: upright; electronic part on top)		
Resistance to vibrations:	30 g in all directions		
Protection index:	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	

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

## EPP4 Pressure Regulator Basic G 1/4" and G 1/2"

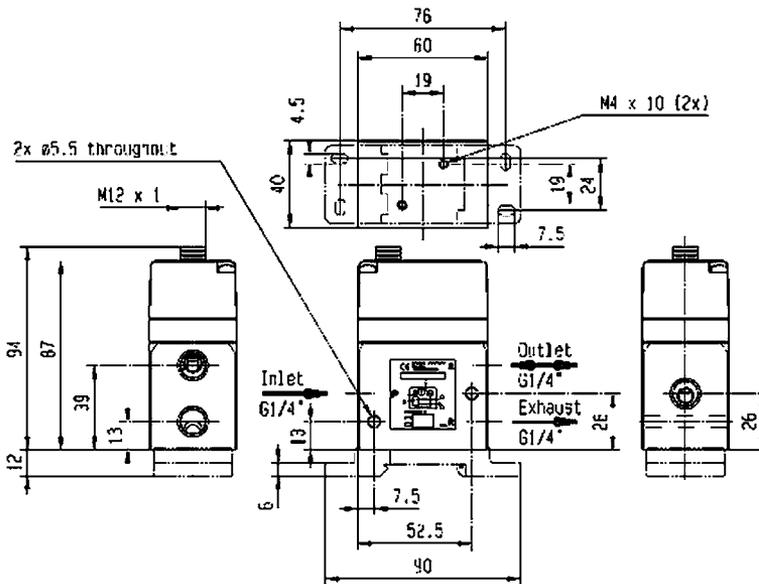
Reference	Pipe	Pressure range (bar)	Control signal (see options)
P4BG2001A002	G 1/4	0 - 10 V	0 - 10 bar
P4BG2001A003	G 1/4	4 - 20 mA	0 - 10 bar
P4BG2001A004	G 1/4	0 - 10 V	0 - 6 bar
P4BG2001A005	G 1/4	4 - 20 MA	0 - 6 bar
P4BG2001A006	G 1/4	0 - 10 V	0 - 5 bar
P4BG2001A007	G 1/4	4 - 20 MA	0 - 5 bar
P4BG2001A008	G 1/4	0 - 10 V	0 - 7 bar
P4BG2001A009	G 1/4	4 - 20 MA	0 - 7 bar
P4BG4001A002	G 1/2	0 - 10V	0 – 10 BAR
P4BG4001A003	G 1/2	4 - 20MA	0 – 10 BAR
P4BG4001A004	G 1/2	0 - 10V	0 – 6 BAR
P4BG4001A005	G 1/2	4 - 20MA	0 – 6 BAR
P4BG4001A008	G 1/2	0 - 10V	0 – 7 BAR
P4BG4001A009	G 1/2	4 - 20MA	0 – 7 BAR

Ask your agent for any specific calibration.  
Ask your agent for the NPT version.  
Cable + connector not included.

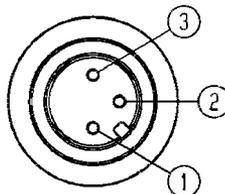
# EPP4 Pressure Regulator Basic G 1/4"



## Dimensions

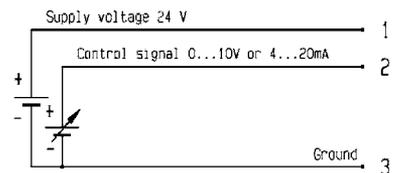


The male connector adopted on the EPP4 is a standard 4 pole M12, without the pin number 4:



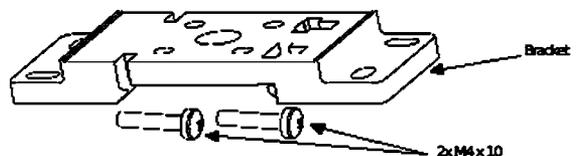
The female connector to mount is the 4 pole M12 connector (IEC 61076-2-101 model LF) where the pin number 4 is not connected.

## ELECTRICAL CONNECTION



## Accessories

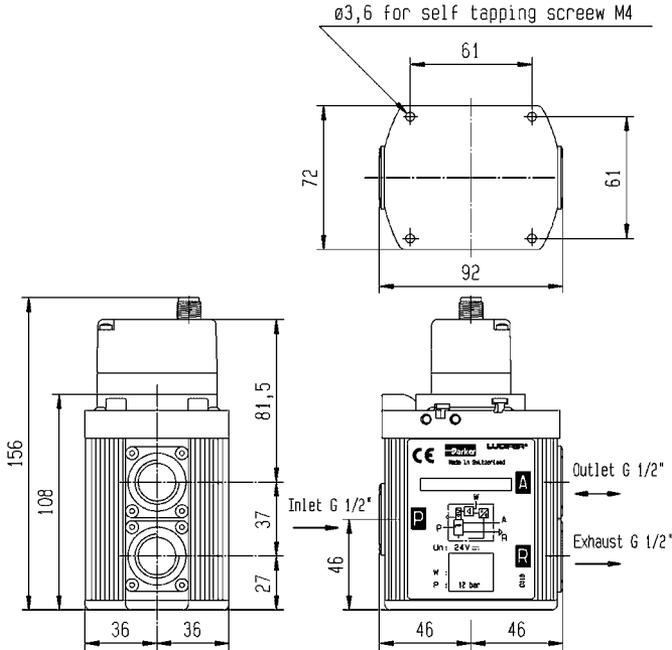
Mounting bracket  
(automatically supplied with each EPP4)



# EPP4 Pressure Regulator Basic G 1/2"



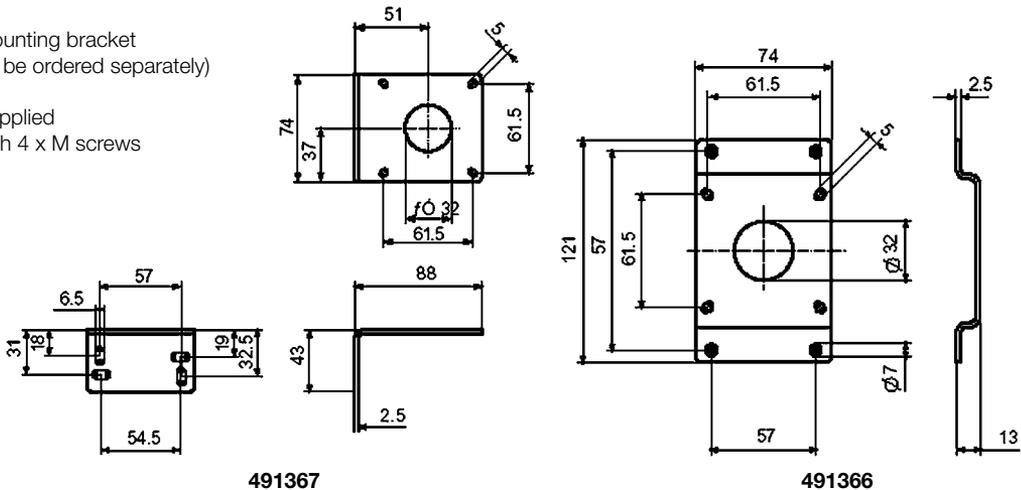
## Dimensions



## Accessories

Mounting bracket  
(to be ordered separately)

Supplied  
with 4 x M screws



## Lucifer® EPP4 Comfort Options

### Calys Software

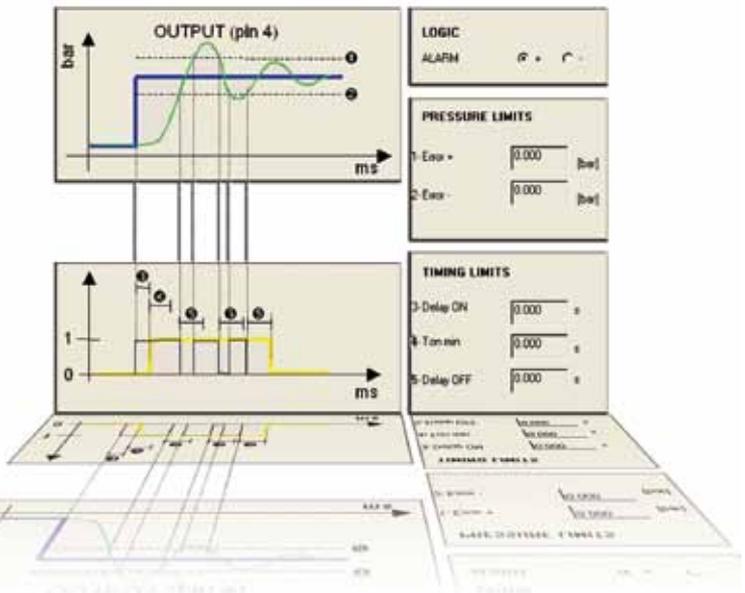
Calys is a software to set all relevant parameters of the Lucifer® EPP4 Comfort.

The cable 496449 (option) is needed to let the EPP4 communicate with any configured PC, this software supplied free of charge with each cable unit.



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)
- Cable 496449 with RS-232 and USB connection



### Power Supply / Control Signal Cable

- 2 m cable with moulded M12-8 pins connector

**Order the PC software  
(including cable) under  
reference 496449**

**Order the power supply /  
control signal cable under  
reference 496796**

## Lucifer® EPP4 Comfort 1/4" and 1/2"

### References

Codes	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
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
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

Other specific settings or specialties (external pressure supply, integrated exhaust of the pilot valves, etc...) are available, please contact us.

If you need more informations on the rest of the Lucifer® EPP4 range, please consult:

- 8683UK -> EPP4 Basic 1/4"
- 8684UK -> EPP4 Basic 1/2"
- 2202UK -> EPP4 Comfort 1/2"HP, 1" & 2"

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

### References

Codes	Pipe	Max inlet pressure (bar)	Pressure range (bar)		Control signal (see options)	Dimensional Drawing
P4CG4101D001	G1/2	15	0	12	0-10V	1
P4CG4201D005	G1/2	21	0	16	0-10V	2
P4CG4201D003	G1/2	21	0	20	0-10V	2
P4CG4201D004	G1/2	21	0	20	4-20mA	2
P4CG6101C009	G1	12	0	3.5	4-20mA	3
P4CG6101C011	G1	12	0	5	0-10V	3
P4CG6101C010	G1	12	0	6	4-20mA	3
P4CG6101C001	G1	12	0	10	0-10V	3
P4CG6101C002	G1	12	0	10	4-20mA	3
P4CG6201D003	G1	21	0	20	0-10V	3
P4CG9101C012	G2	12	0	4	4-20mA	4
P4CG9101C010	G2	12	0	6	4-20mA	4
P4CG9101C001	G2	12	0	10	0-10V	4
P4CG9101C002	G2	12	0	10	4-20mA	4

Other specific settings or specialties (external pressure supply, integrated exhaust of the pilot valves, etc...) are available, please contact us.



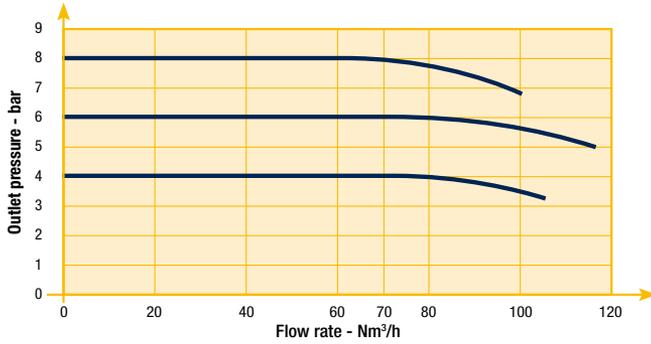
If you need more informations on the rest of the Lucifer® EPP4 range, please consult:

- 8683UK -> EPP4 Basic 1/4"
- 8684UK -> EPP4 Basic 1/2"
- 2201UK -> EPP4 Comfort 1/4" & 1/2"

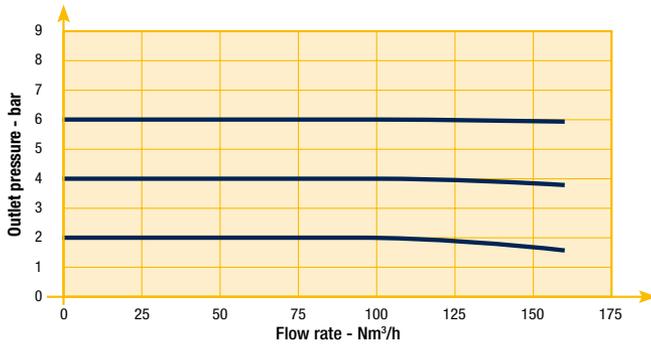
## Lucifer® EPP4 Basic and Comfort 1/4" and 1/2"

### Technical Characteristics

#### Flow Curve 1/4"



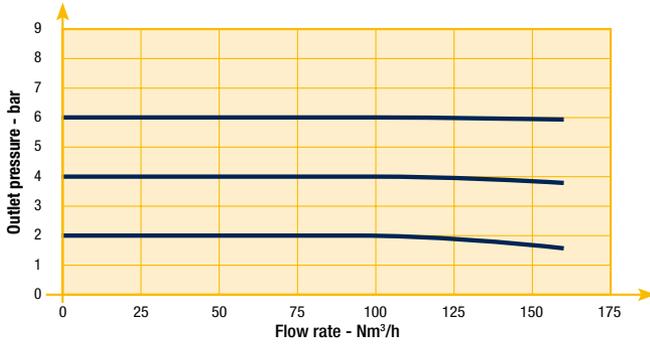
#### Flow Curve 1/2"



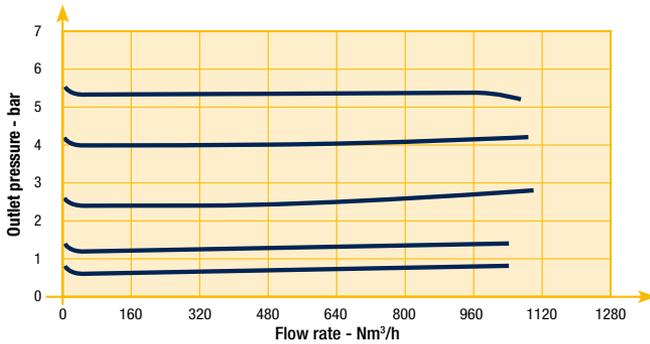
## Lucifer® EPP4 Comfort 1/2" HP, 1" and 2"

### Technical Characteristics

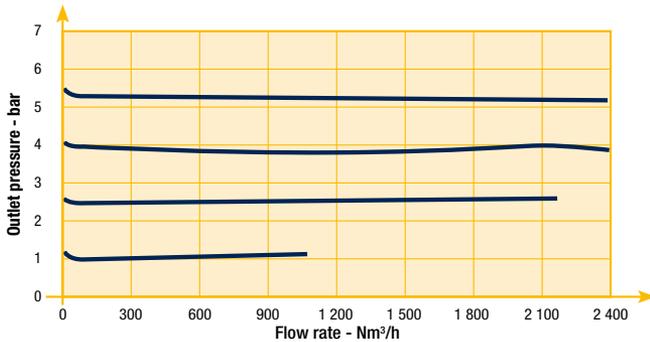
#### Flow Curve 1/2"



#### Flow Curve 1"



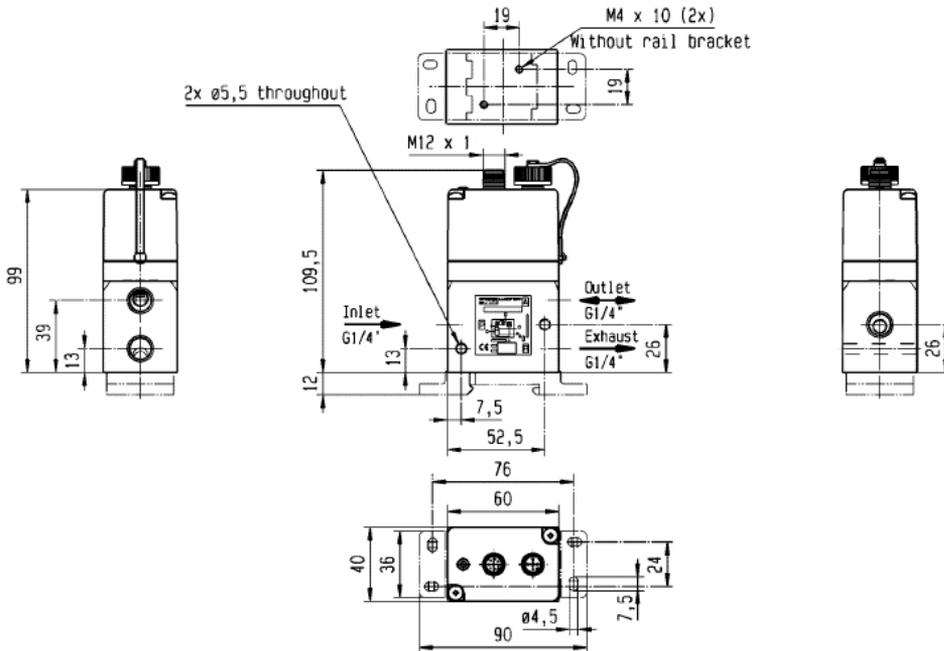
#### Flow Curve 2"



Lucifer® EPP4 Comfort Range 1/4"

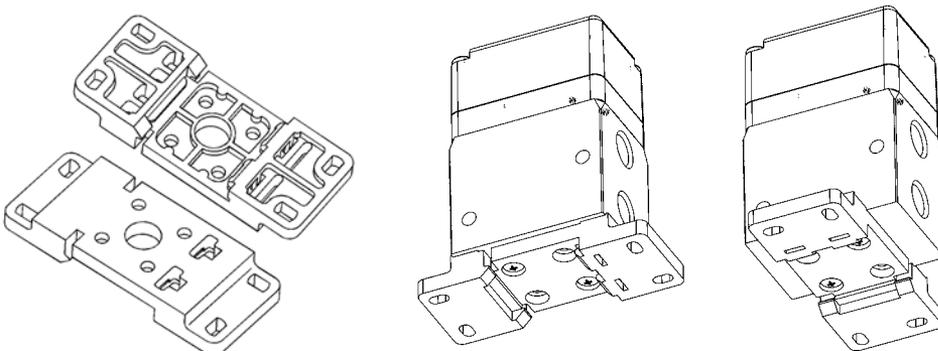


Dimensions



Accessories

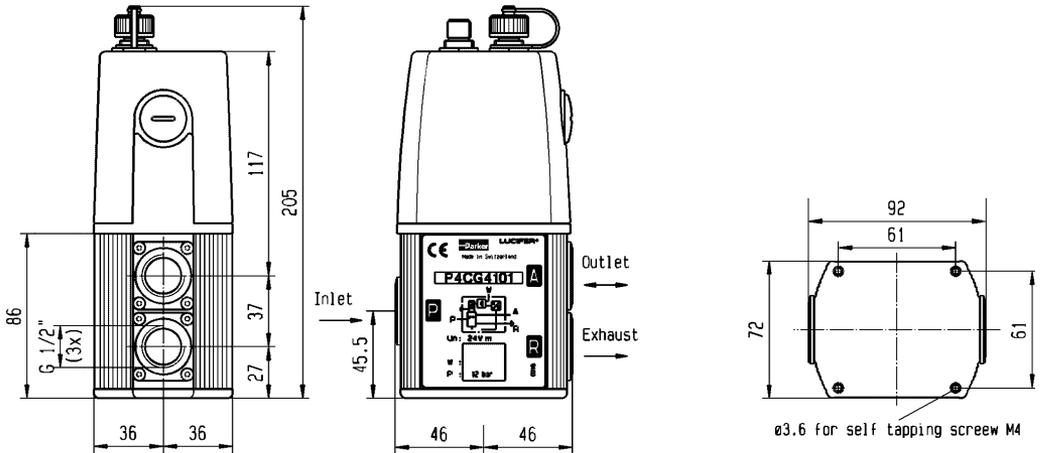
Mounting bracket  
(supplied as a standard with each Lucifer® EPP4 1/4")



**Lucifer® EPP4 Comfort Range 1/2"**

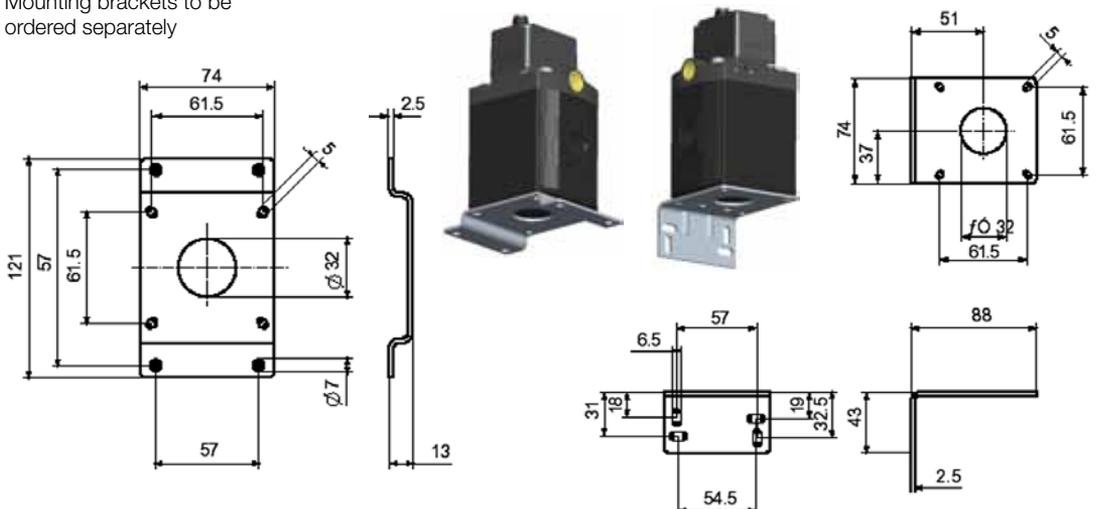


**Dimensions**



**Accessories**

Mounting brackets to be ordered separately



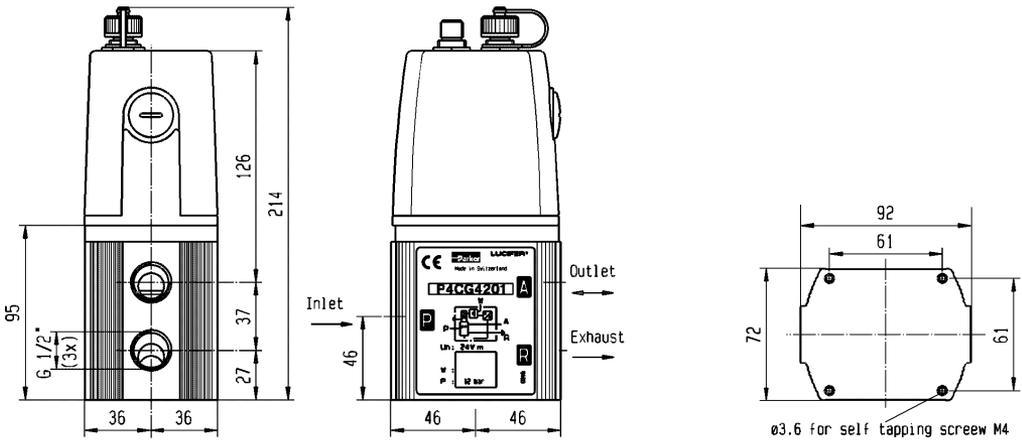
**Order reference 491366**

**Order reference 491367**

**Lucifer® EPP4 Comfort Range 1/2"**  
**High Pressure 20 bar**

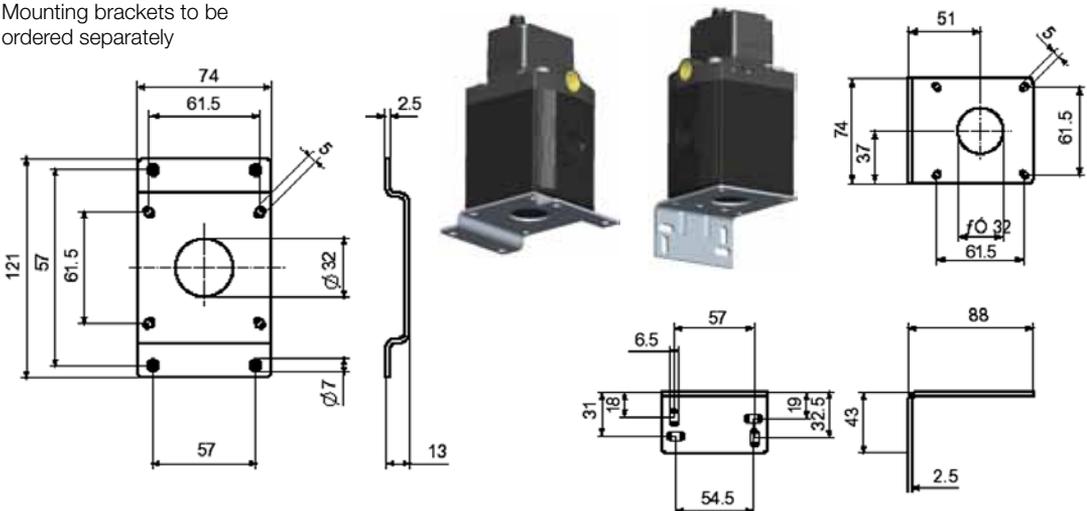


**Dimensions**



**Accessories**

Mounting brackets to be ordered separately



Order reference 491366

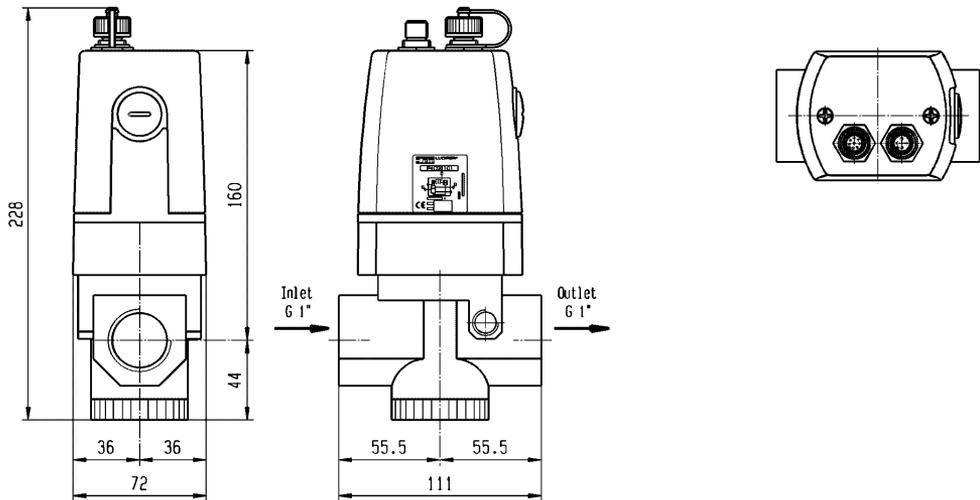
Order reference 491367



## Lucifer® EPP4 Comfort Range 1"



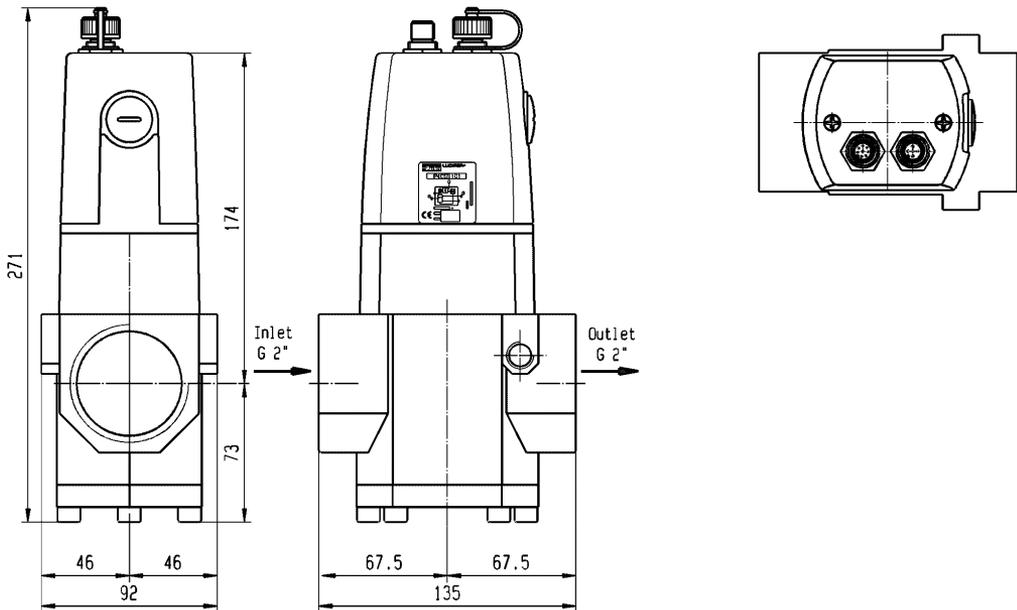
### Dimensions



## Lucifer® EPP4 Comfort Range 2"



### Dimensions

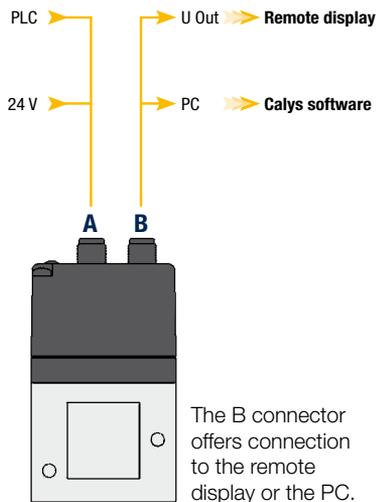


## Lucifer® EPP4 Comfort Options

### 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 his regulators performance directly to his specific application.
- A power supply and control signal cable.

## Lucifer® EPP4 Comfort Options

### Remote Display

This option includes the Remote Display and 1.5 meter connecting cable.

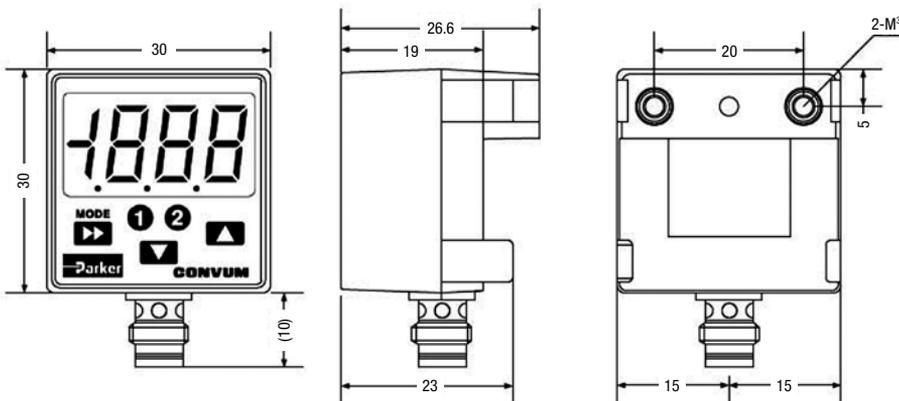
Compact and highly readable remote LED display:

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



**Order the Remote Display under reference 496490**

### Panel Mounting Kit



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