

# Electro-Pneumatic-Valve

EPV 16 ...

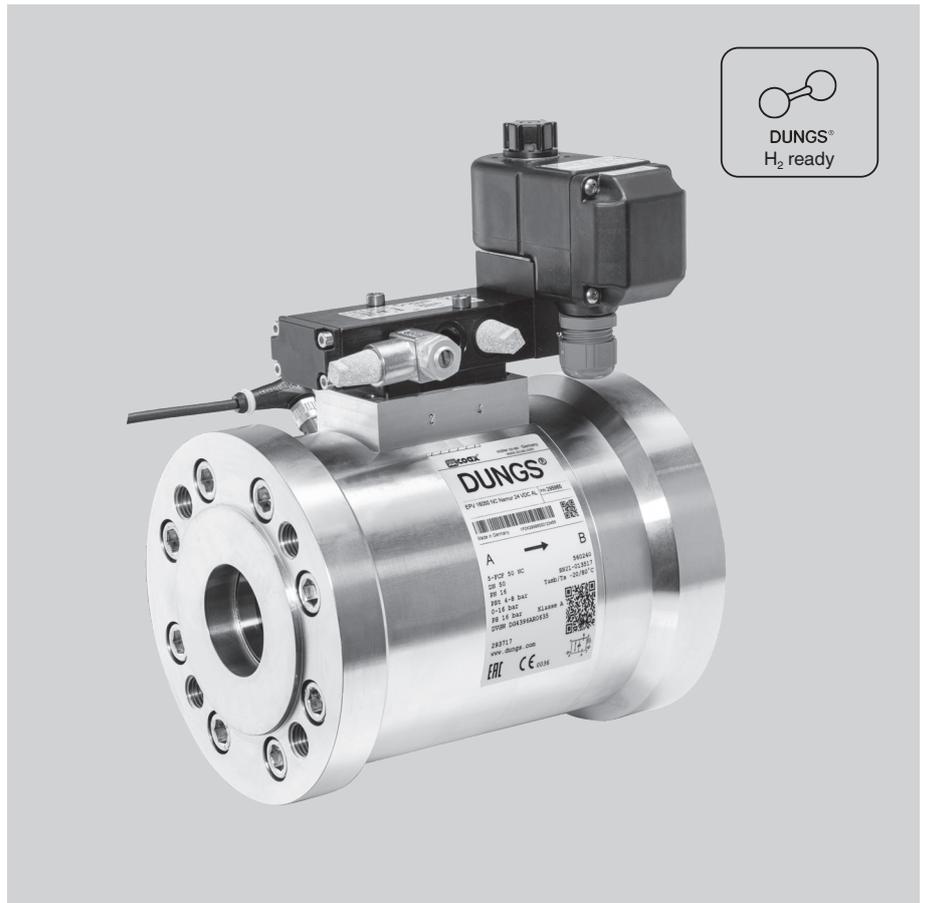
CE-Version

**DUNGS**<sup>®</sup>  
Combustion Controls

## ELECTRO PNEUMATIC VALVE EPV 16 XXX

Manufacturer / Owner  
of EU-Type Examination Certificate

müller co-ax GmbH  
Friedrich-Müller-Straße 1  
74670 Forchtenberg / Germany



### Technical description

The electro pneumatic valve EPV is a coaxial valve operated with electro pneumatic auxiliary energy (5/2-way valve):

- Gas safety valve NC (normally closed)
- Gas relief valve NO (normally open)

depending on the version.

### Application

The electro-pneumatic valve, EPV, is suitable for shutting off (NC) or blowing off (NO) of gases families 1, 2, 3 and other neutral gaseous media.

The EPV product range is 100 % H<sub>2</sub> ready. The „open or closed“ position can be indicated electrically by means of inductive limit switches.

### Approval

EC-type testing certificate as per:

- EC-Pressure Equipment Directive

Approvals in other important gas consuming countries.

### ATEX

Inside Valve: Zone 0

Outside Valve: Zone 1 or zone 2 depending on limit switch.

# Electro-Pneumatic-Valve

## EPV ...

### Pilot valve

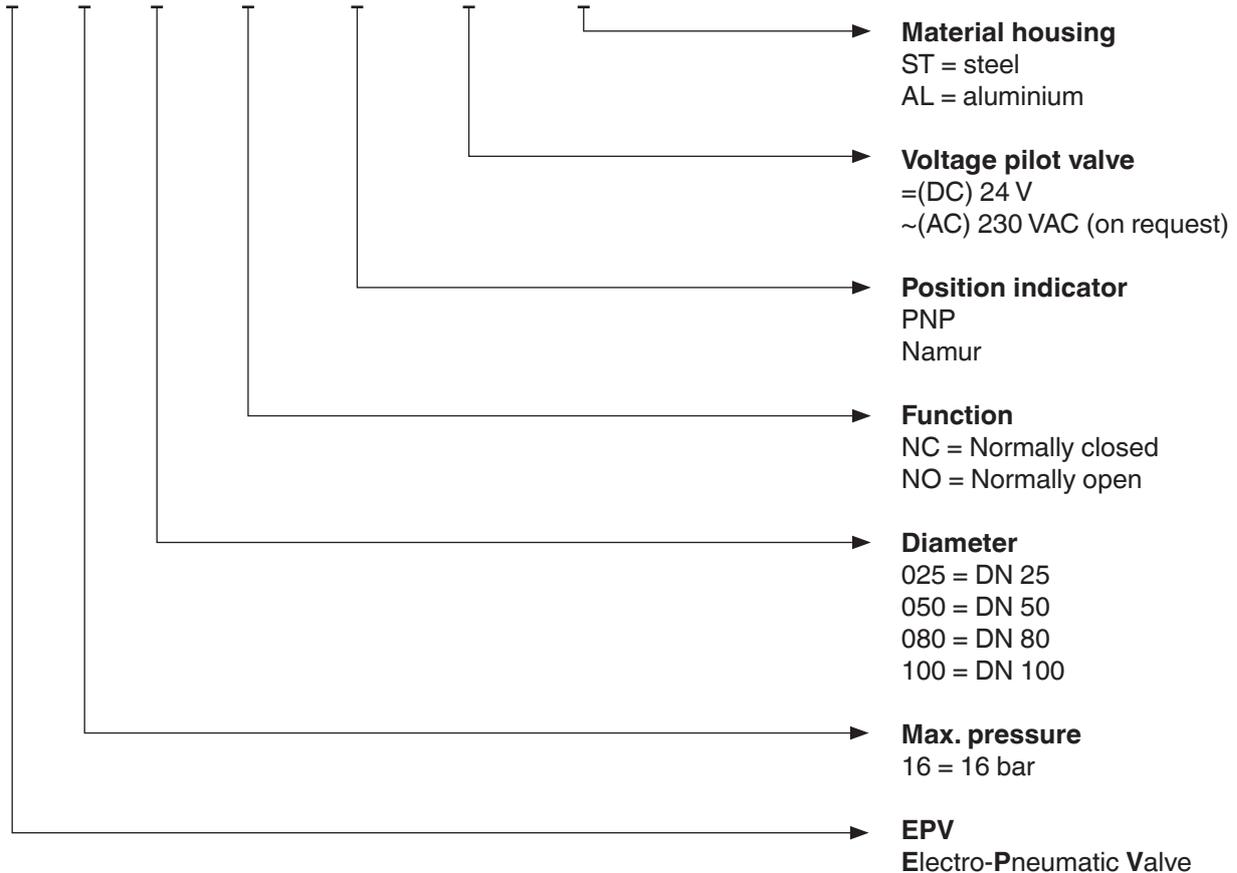


Specification	EPV-Valve
Nominal diameter Flange	DN 25 / DN 50 / DN 80 / DN 100 PN 16 EN 1092-1
Max. operating pressure	0 - 16 bar (1600 kPa)
Back pressure proof	Max. 10 bar
Valve	Valve as per EN 16678, Class A, Group 2, single-stage mode EN 16304 Group 2
Function	Normally closed NC Normally open NO
Closing time	DN 25     50 ms DN 50     150 ms DN 80     350 ms DN 100    300 ms
Opening time	DN 25     50 - 3000 ms DN 50     150 - 3000 ms DN 80     350 - 3000 ms DN 100    450 - 3000 ms Option: pneumatic break ≤ 20 s
Medium	Gas families 1, 2, 3 and neutral gaseous media 100 % hydrogen
Ambient temperature	-10 °C to +60 °C
Temperature gas	-10 °C to +60 °C
Pore width filter element	≤ 50 µm
Materials	Housing: Aluminium / Steel zinc plated Inner parts: Stainless steel
ATEX inner space	Zone 0 II 1G Ex e II T5
ATEX outside	Zone 1 / II 2G Ex e II T5 (with inductive limit switch Namur 9 V) Zone 2 / II 3G Ex e II T5 (with standard inductive limit switch PNP 24 V)
Emergency shutdown	Manual operation via pilot valve
Degree of protection	IP 65
Limit switch	Standard inductive PNP 24 VDC Inductive Namur 9 VDC, additional amplifier required
Installation position	from vertically upright to horizontally lying
Specification	Pilot valve
Pilot valve	5/2 way valve
Control air (nominal pressure)	DN 25                            4,5 - 8 bar DN 50, DN 80, DN 100    4 - 8 bar
Control air requirements	clean dry compressed air according to ISO 8573-1, Class 3 and 5, or nitrogen, with switching cycles ≥ 2/min. lubrication, dew point 10 °C lower than ambient temperature
Control air connection	G 1/4"
Temperature compressed air	-10 °C to +55 °C
Materials	Aluminium
Voltage	=(DC) 24 V ~(AC) 230 VAC (on request)
Rating / Power consumption	3 W

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## Type key of EPV

**EPV 16 XXX XX XXX XXX XXX**



**For example: „EPV 16 080 NC PNP 24 VDC AL“**

### Functional description

#### NC valve (Normally closed)

**Opening:** When electrical voltage is applied to the pilot valve (5/2-way valve), the piston of the coaxial valve is pressurised with the pneumatic auxiliary energy.

The tube slide of the valve is opened against the closing spring, the gas can flow.

**Closing:** When the electrical voltage to the pilot valve is removed, force is exerted on the piston with the aid of the pneumatic auxiliary energy and the closing spring and the tubular slide of the coaxial valve is closed, the gas flow is blocked.

# Electro-Pneumatic-Valve EPV ...

**=(DC) 24 V**

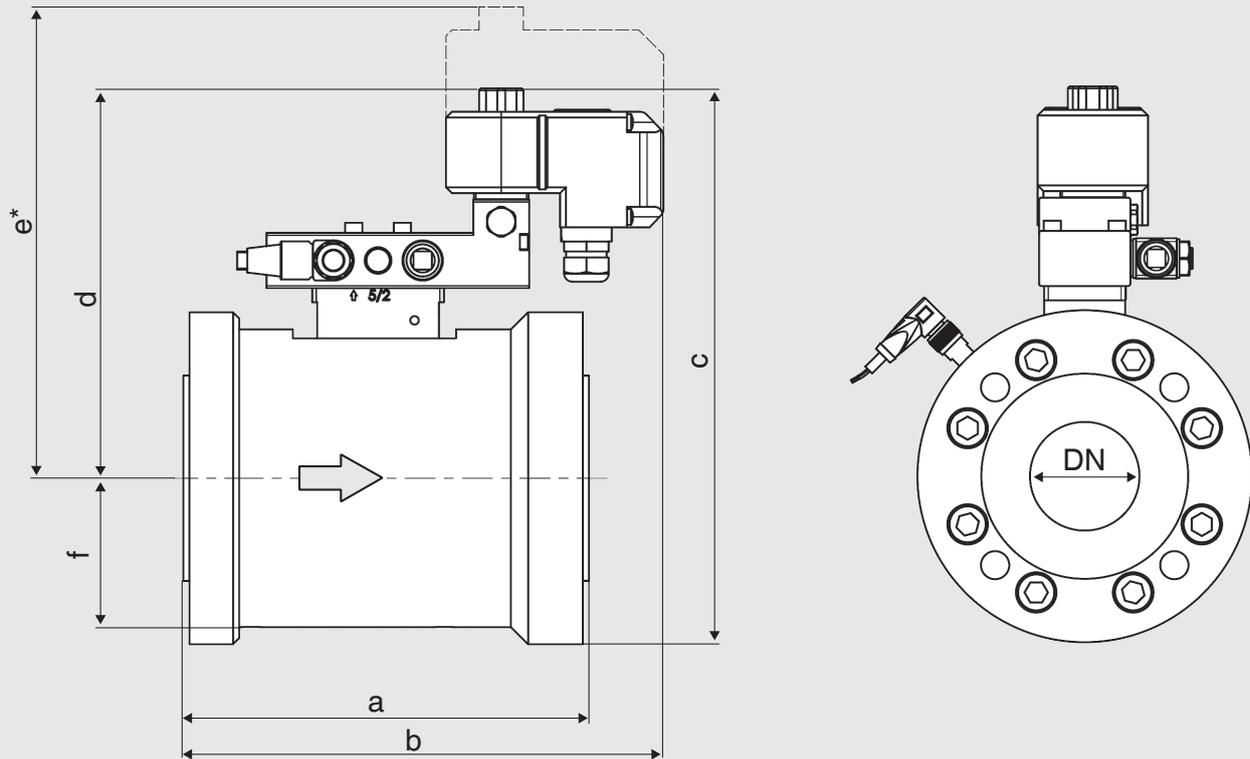


Type	Order No.	Flange DN	Length [mm]	Weight [kg]
EPV 16025 NO PNP 24 VDC ST	295948	DN 25	170	11,0
EPV 16025 NO Namur 24 VDC ST	295949			
EPV 16025 NC PNP 24 VDC ST	295950			
EPV 16025 NC Namur 24 VDC ST	295951			
EPV 16050 NC PNP 24 VDC ST	295954	DN 50	200	24,0
EPV 16050 NC Namur 24 VDC ST	295955			
EPV 16080 NC PNP 24 VDC ST	295956	DN 80	260	43,0
EPV 16080 NC Namur 24 VDC ST	295957			
EPV 16100 NC PNP 24 VDC ST	295958	DN 100	350	72,0
EPV 16100 NC Namur 24 VDC ST	295959			
EPV 16025 NO PNP 24 VDC AL	295960	DN 25	170	4,0
EPV 16025 NO Namur 24 VDC AL	295961			
EPV 16025 NC PNP 24 VDC AL	295962			
EPV 16025 NC Namur 24 VDC AL	295963			
EPV 16050 NC PNP 24 VDC AL	295964	DN 50	200	10,0
EPV 16050 NC Namur 24 VDC AL	295965			
EPV 16080 NC PNP 24 VDC AL	295966	DN 80	260	19,0
EPV 16080 NC Namur 24 VDC AL	295967			
EPV 16100 NC PNP 24 VDC AL	295968	DN 100	350	35,0
EPV 16100 NC Namur 24 VDC AL	295970			

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Dimensions [mm]



\*e = Space requirement for mounting solenoid

Type	Flange DN	Flange Diameter [mm]	Dimensions [mm]							
			a	b		c	d	e*		f
Version		∅		NC	NO	NC/NO	NC/NO	NC/NO		
EPV 16025	DN 25	115	170	225	250	228	170	220		54
EPV 16050	DN 50	165	200	237	275	278	195	245		74
EPV 16080	DN 80	200	260	267	299	316	216	266		95
EPV 16100	DN 100	230	350	350	350	356	241	294		110

# Electro-Pneumatic-Valve CE-Version

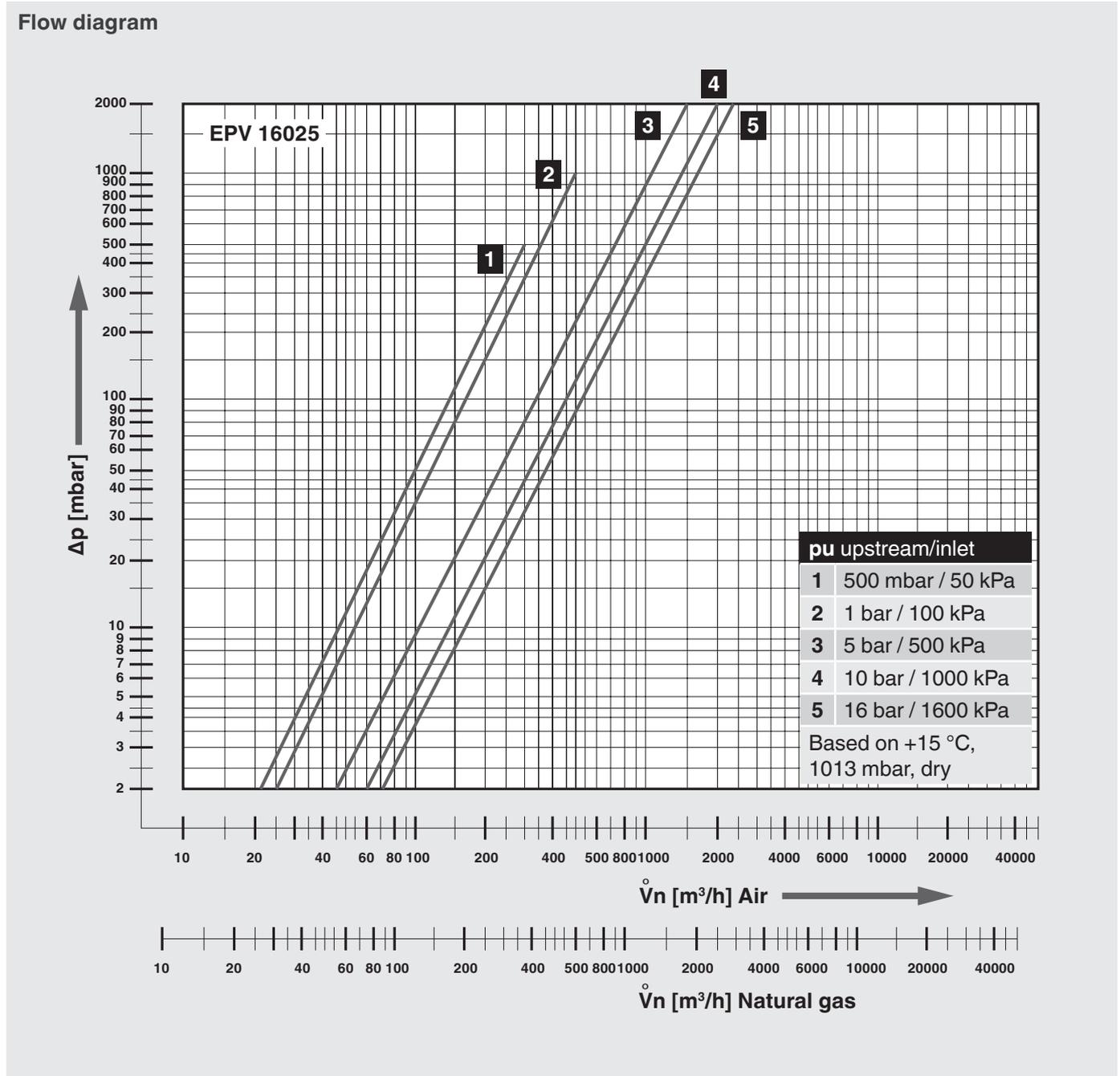


Spare parts / Accessories	Ordering No.
Pilot valve EPV aluminium	296722
Limit switch EPV (PNP)	296725
Limit switch EPV (Namur)	296726
Pneumatic brake EPV	296727

# Electro-Pneumatic-Valve EPV 16025 ...

DN 25

$\Delta p/V$  Flow diagram



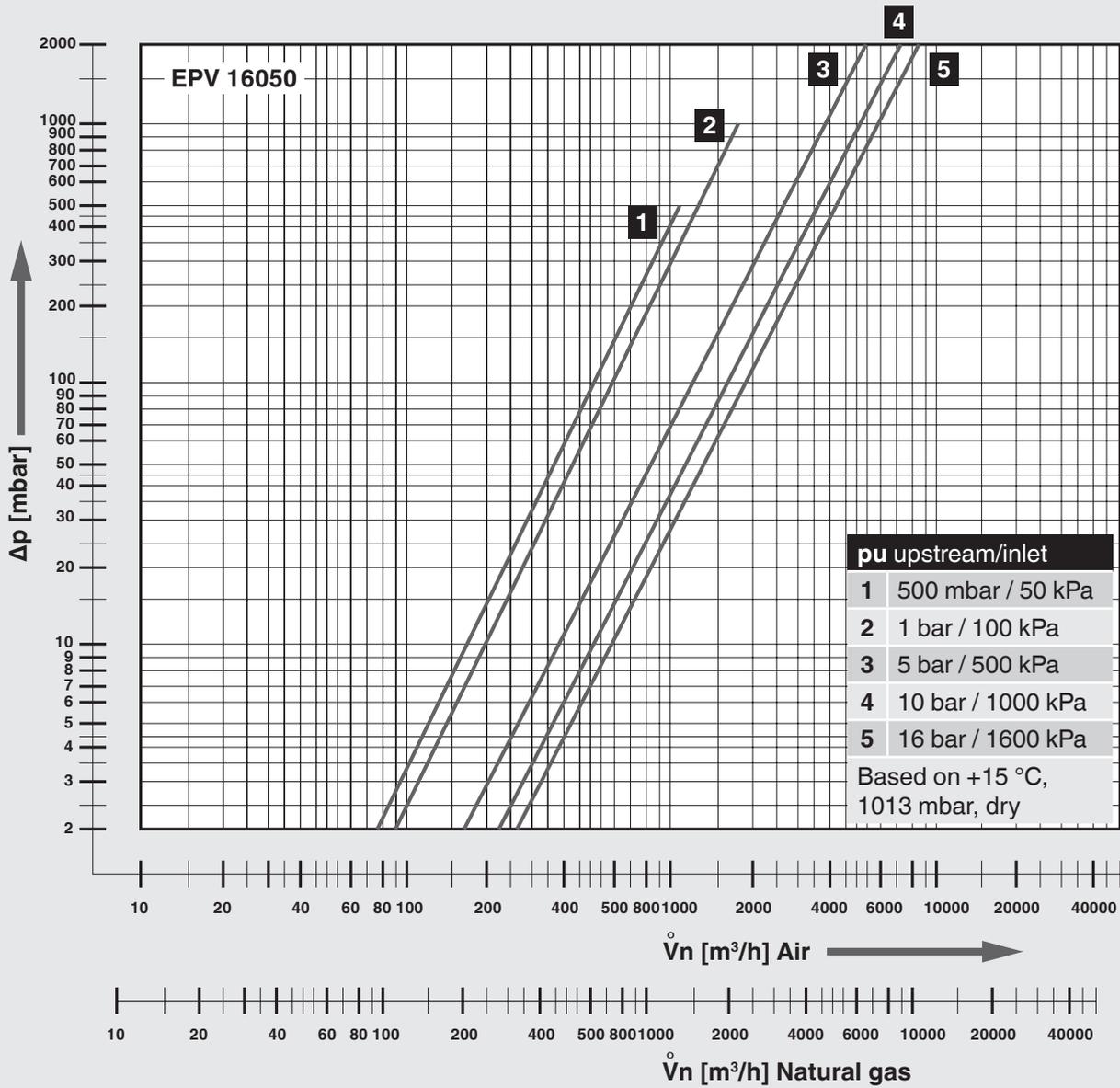
# Electro-Pneumatic-Valve EPV 16050 ...

DN 50

## $\Delta p/V$ Flow diagram



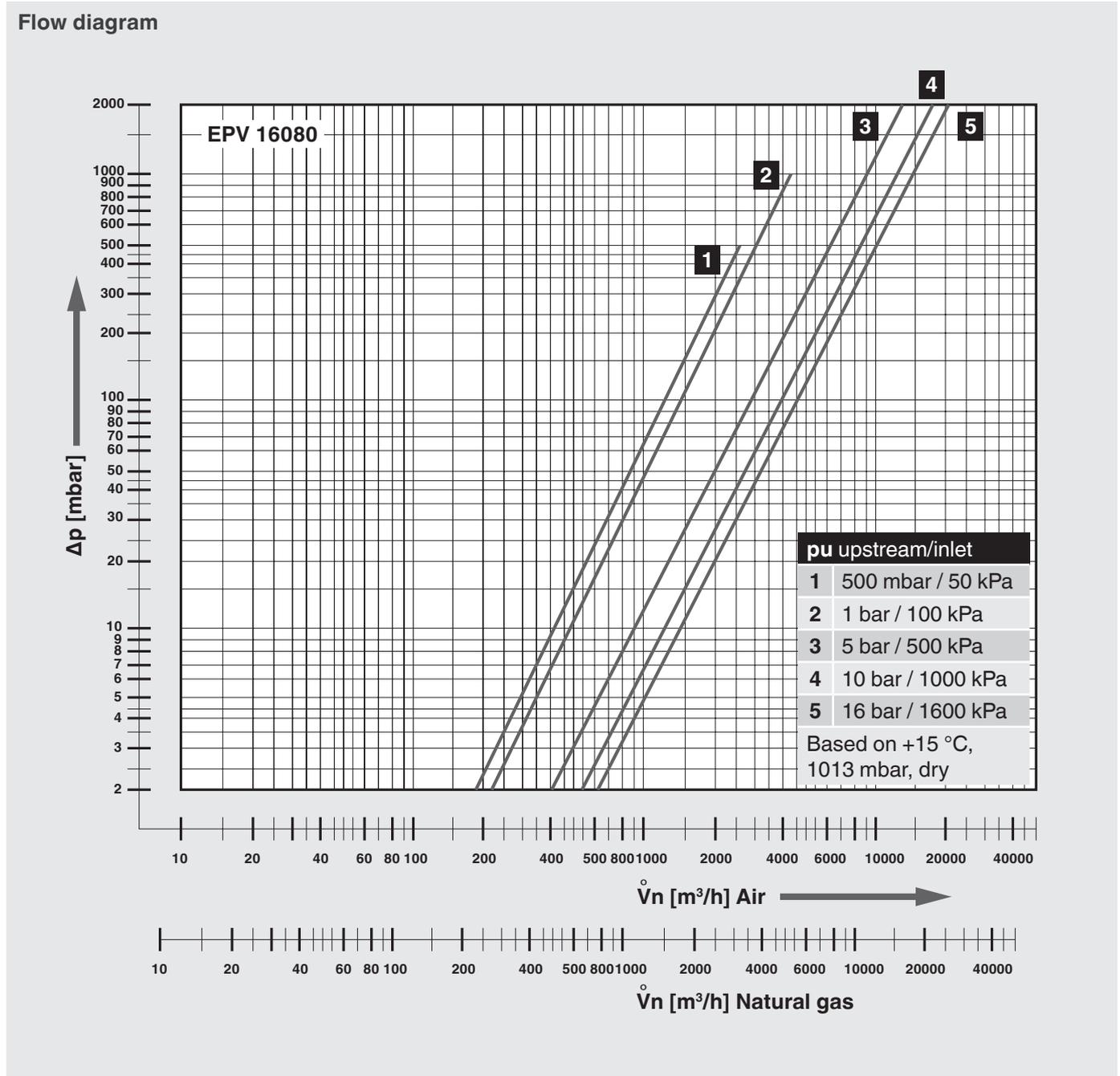
Flow diagram



# Electro-Pneumatic-Valve EPV 16080 ...

DN 80

## $\Delta p/V$ Flow diagram



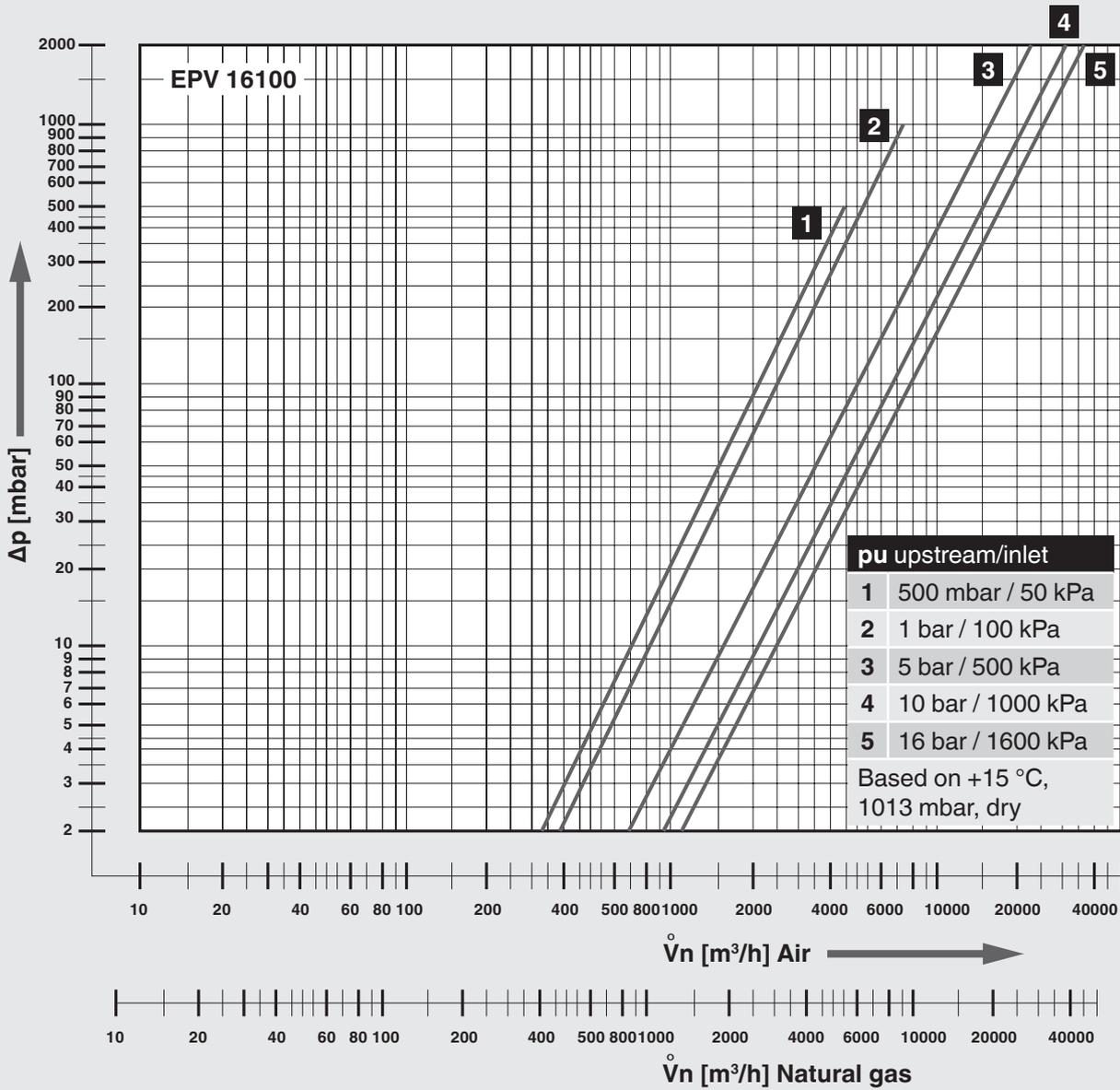
# Electro-Pneumatic-Valve EPV 16100 ...

DN 100

## $\Delta p/V$ Flow diagram



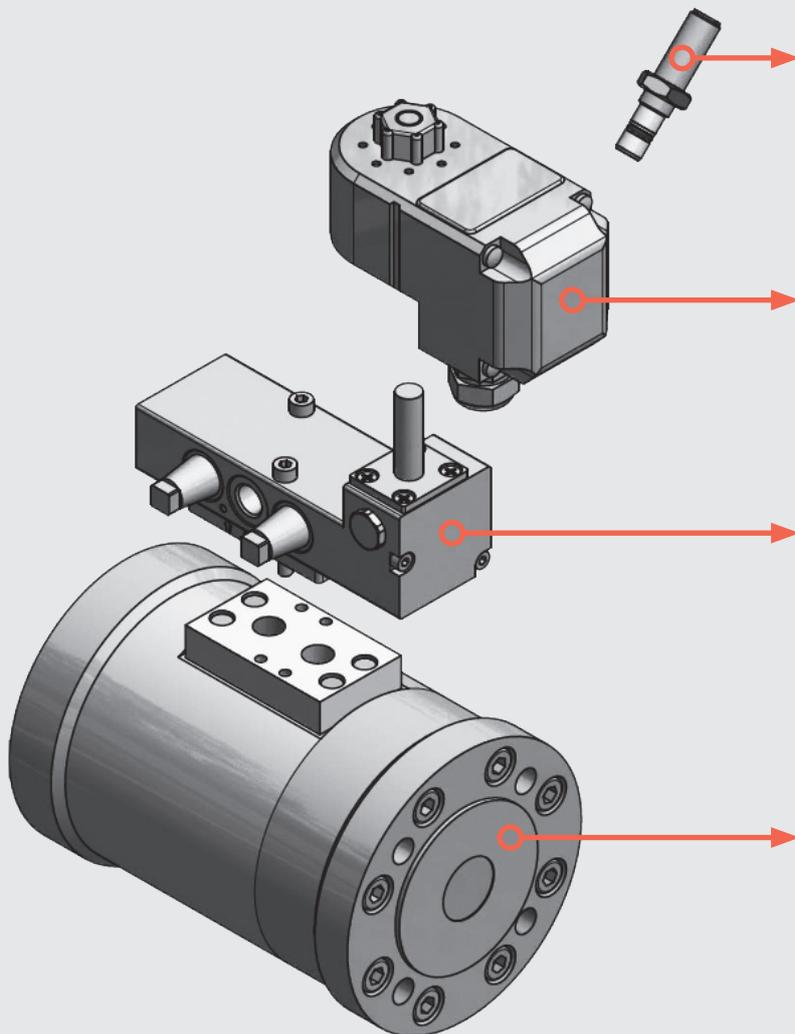
Flow diagram



# Electro-Pneumatic-Valve CE-Version



Market Launch  
EPV Series  
Main Components



### Limit switch

- Standard PNP
- NPN (marine only)
- Namur (additional amplifier required)

### Solenoid/Voltage

=(DC) 24 V

### Pilot valve/Material

- CE: Aluminium
- Marine: Stainless steel

### Coaxial valve

- DN 25, DN 50, DN 80, DN 100
- NC for safety shut off
- DN 25
- NO for relief

# Electro-Pneumatic-Valve CE-Version



## Head Offices and Factory

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