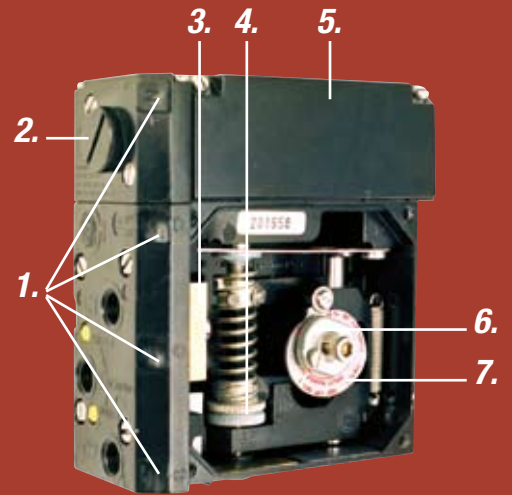


# ***EP5 Electropneumatic positioner***

Product  
Information



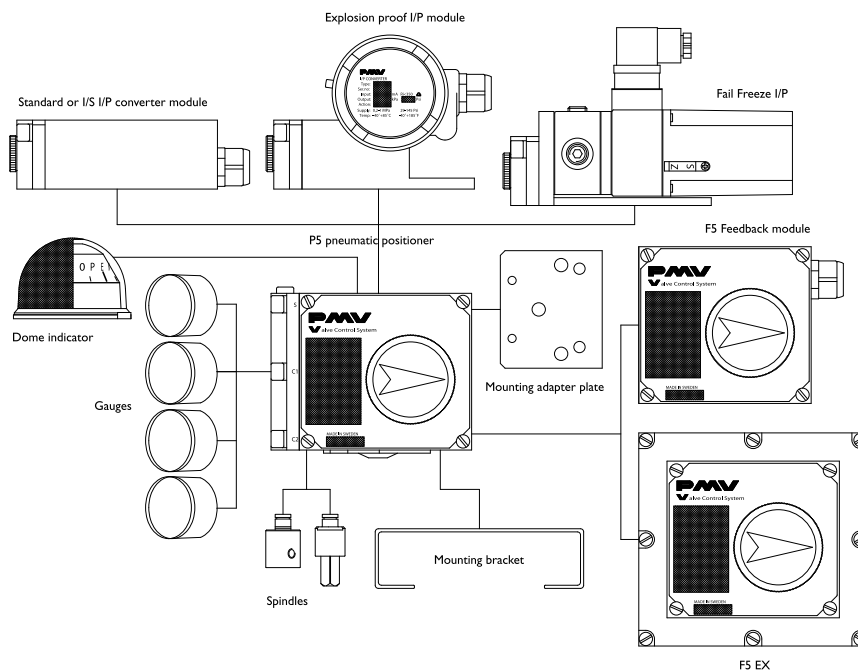
1. Gauge ports
2. Filter plug
3. Spool valve (High performance or Normal Gain)
4. Simple calibration of span & zero
5. I/P converter
6. Simple cam locking
7. Stainless cam



## EP5 Electropneumatic Positioner

### EP5

- Modular, sturdy, simple, reliable design.
- Tapped exhaust port.
- Easy to add on Feedback Unit F5.
- Simple calibration, external zero adjustment.
- High gain pilot valve.
- Built in gauge ports.
- Bright visible indicator, flat or Dome style.
- Stainless steel cam.





## Technical data

Deadband	≤ 0.15%
Input signal	4–20 mA
Linearity	≤ 1%*
Hysteresis	≤ 0.75%*
Repeatability	≤ 0.5%*
Air supply	Max. 1 MPa/150 Psi, Oil, water and dustfree Min. 0.14 MPa/21 Psi
Connector threads	1/4" NPT or G (BSP)
Gauge threads	1/8" NPT or G (BSP)
Conduit entry	1/2" NPT or M20
Terminals	2.5 mm <sup>2</sup> (AWG 14) Screw terminals

### Gain factor at: 600 KPa/87 Psi

### High Performance Version

### Normal Gain Version

Min: 1000 KPa/KPa

Min: 450 KPa/KPa

Min: 66%/ % ISA S75.13-1989

Min: 30%/ %

### Max. air consumption at supply pressure:

0.2 MPa/29 Psi	6.1 nl/min (0.22 SCFM)	2.7 nl/min (0.1 SCFM)
0.4 MPa/58 Psi	13.6 nl/min (0.48 SCFM)	6.1 nl/min (0.21 SCFM)
0.6 MPa/87 Psi	22 nl/min (0.78 SCFM)	9.9 nl/min (0.35 SCFM)
0.8 MPa/116 Psi	30.5 nl/min (1.08 SCFM)	13.7 nl/min (0.48 SCFM)
1 MPa/145 Psi	39 nl/min (1.38 SCFM)	17.5 nl/min (0.62 SCFM)

### Min. air delivery at supply pressure:

0.2 MPa/29 Psi	200 nl/min (6.9 SCFM)	156 nl/min (5.5 SCFM)
0.4 MPa/58 Psi	370 nl/min (12.8 SCFM)	288 nl/min (10.1 SCFM)
0.6 MPa/87 Psi	540 nl/min (18.8 SCFM)	421 nl/min (14.8 SCFM)
0.8 MPa/116 Psi	710 nl/min (24.7 SCFM)	553 nl/min (19.4 SCFM)
1 MPa/145 Psi	880 nl/min (30.6 SCFM)	686 nl/min (24 SCFM)

Input impedance	170–260 Ohms at 20°C (71°F)
RFI influence	Not measurable
Capacitance	Negligible
Position sensitivity	None
Supply pressure effect	0.5%/0.1 MPa (15 Psi)
Temperature range	–20°C to +85°C/(–4°F to +185°F)
Low temp option	–40°C to +85°C/(–40°F to +185°F)
Weight	1.5 kg/3.4 lbs
Housing	Die cast aluminum
Surface treatment	ED Epoxy paint, black
Fasteners	A2/A4 Stainless
Ingress protection	IP 66/NEMA 4

### Approvals

ATEX	Intrinsically safe	EEX ia IIC T4–T6 Ⓢ II 1 G	Non-electrical device P5 Ⓢ II 1 G
	Flameproof**	EEX d IIC T4–T6 Ⓢ II 2 G	
FM	Intrinsically safe	Div.1, Class 1 Group ABCD	
	Explosion proof**	Div.1, Class 1 Group BCD	
CSA	Intrinsically safe	Div.1, Class 1 Group ABCD	
	Explosion proof**	Div.1, Class 1,2,3 Group BCDEFG	

\* Percent of full scale

\*\* I/P in round housing



### Modular

- EP5 For all normal applications
- EP5-EX Explosion proof
- EP5-FS Fail freeze
- EP5-IS Intrinsically safe



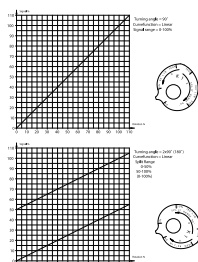
### EP5 Series Coding

<b>Model</b>	
EP5XX	EP5 Double acting pneumatic
EP5FS	Fail freeze function
EP5IS	Intrinsically safe, ATEX, FM, CSA
EP5EU	Explosion proof ATEX
EP5US	Explosion proof CSA, FM
<b>Spool valve</b>	
HP	High performance
LB	Normal Gain
<b>Connections</b>	
N	NPT 1/4", El. 1/2" NPT
G	G 1/4" air, M20 x 1,5 electric
M	NPT 1/4" air, M20 x 1,5 electric
<b>Surface treatment</b>	
U	Epoxy coating
M	Tufram
<b>Spindle</b>	
01, 23 etc	01 to 39. See dwg SPNDLS_P5
<b>Cam</b>	
K01, K08 etc	K01 to K34
<b>Front cover</b>	
PV9DA*	90°, Direct, arrow indicator
<b>Input signal</b>	
4	4-20 input
<b>Temperature</b>	
N	Nitrile seals -20°C to +85°C
Q	Silicon seals, -40°C to +85°C

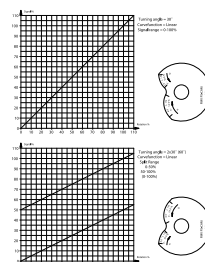
\*For 30, 45, 60 deg rotation, change PV9 to PV3, PV4 or PV6

**Example**  
EP5XX-HPNU-23K01-PV9DA-4Z

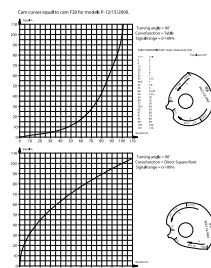
### Cams



K1

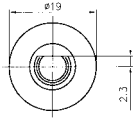


K3

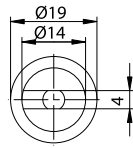
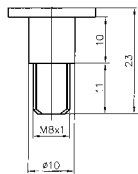


K8

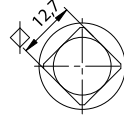
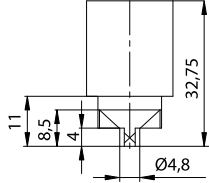
## Spindles



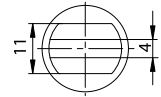
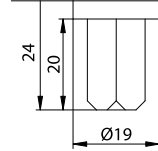
S 39



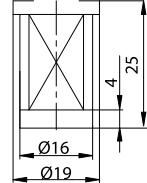
S23



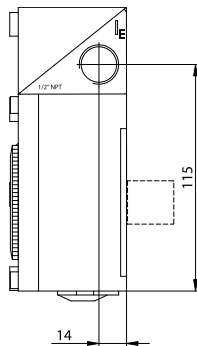
S30



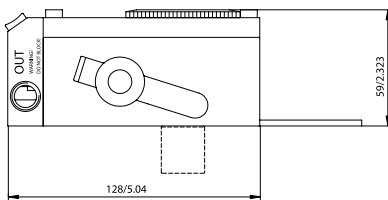
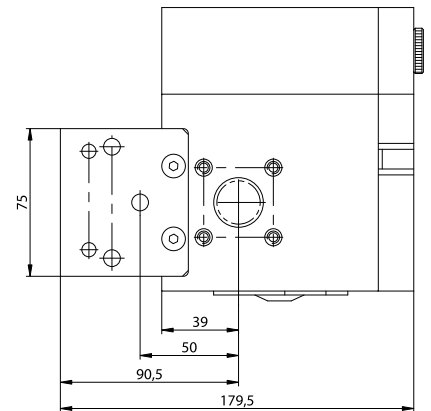
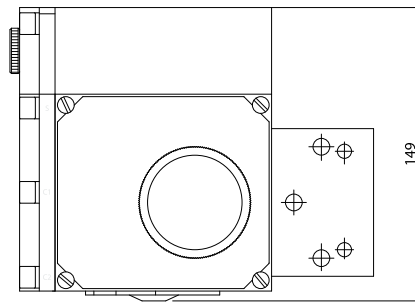
S36



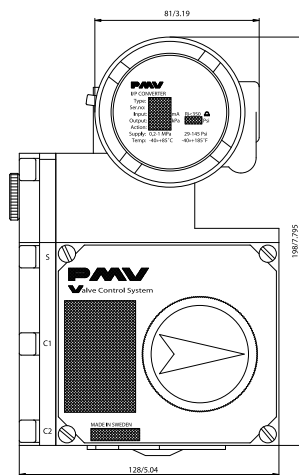
## Dimensions drawings (mm)



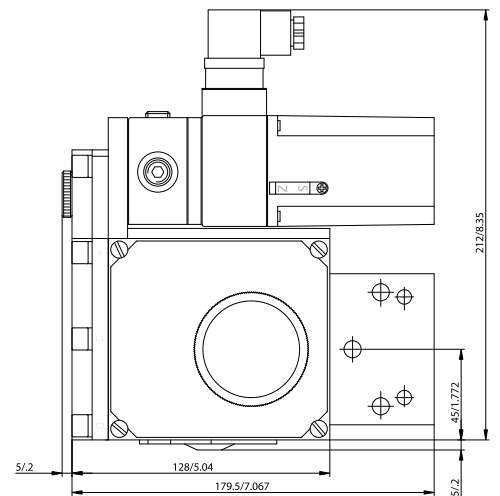
EP5



EP5



EP5 EX



EP5-FS




p/n: FCD PMENBR0006-02



**Hazardous Locations**



**Intrinsically safe:**

ATEX EEx ia IIC T4-T6  II 1 G CSA, FM Class 1, Div 1, Group ABCD

**Explosion proof:**

ATEX EEx d IIB+H2, T4-T6  II 2 G CSA, FM Div 1, Class 1, 2 & 3 Group BCDEFG

Flowserve Corporation has established industry leadership in the design and manufacture of its products. When properly selected, this Flowserve product is designed to perform its intended function safely during its useful life. However, the purchaser or user of Flowserve products should be aware that Flowserve products might be used in numerous applications under a wide variety of industrial service conditions. Although Flowserve can (and often does) provide general guidelines, it cannot provide specific data and warnings for all possible applications. The purchaser/user must therefore assume the ultimate responsibility for the proper sizing and selection, installation, operation, and maintenance of Flowserve products. The purchaser/user should read and understand the Installation and Maintenance (I & M) instructions included with the product, and train its employees and contractors in the safe use of Flowserve products in connection with the specific application.

While the information and specifications contained in this literature are believed to be accurate, they are supplied for informative purposes only and should not be considered certified or as a guarantee of satisfactory results by reliance thereon. Nothing contained herein is to be construed as a warranty or guarantee, express or implied, regarding any matter with respect to this product. Because Flowserve is continually improving and upgrading its product design, the specifications, dimensions and information contained herein are subject to change without notice. Should any question arise concerning these provisions, the purchaser/user should contact Flowserve Corporation at any one of its worldwide operations or offices.

©2007 Flowserve Corporation, Irving, Texas, USA. Flowserve and PMV are registered trademarks of Flowserve Corporation.

**Palmstierna International AB**  
Korta Gatan 9  
SE-171 54 Solna  
SWEDEN  
Tel: +46 (0) 8 555 106 00  
Fax: +46 (0) 8 555 106 01  
E-mail: [infopmv@flowserve.com](mailto:infopmv@flowserve.com)

**Germany**  
Flowserve  
Sperberweg 16  
D-41468 Neuss  
GERMANY  
Tel: +49 (0) 2131 795 74 80  
Fax: +49 (0) 2131 795 74 99  
E-mail: [pmvgermany@flowserve.com](mailto:pmvgermany@flowserve.com)

**UK**  
Flowserve  
Abex Road  
Newbury, Berkshire, RG14 5EY  
UK  
Tel: +44 (0) 1635 46 999  
Fax: +44 (0) 1635 36 034  
E-mail: [pmvukinfo@flowserve.com](mailto:pmvukinfo@flowserve.com)

**Italy**  
Flowserve Spa  
Via Prealpi, 30  
20032 Cormano (Milano)  
ITALY  
Tel: +39 (0) 2 663 251  
Fax: +39 (0) 2 615 18 63  
E-mail: [infoitaly@flowserve.com](mailto:infoitaly@flowserve.com)

**USA, Mexico**  
PMV-USA  
1440 Lake Front Circle, Unit 160  
The Woodlands, TX 77380  
USA  
Tel: +1 281 292 7500  
Fax: +1 281 292 7760  
E-mail: [pmvusa@flowserve.com](mailto:pmvusa@flowserve.com)

**Canada**  
Cancoppas Limited  
2595 Dunwin Drive, Unit 2  
Mississauga, Ont L5L 3N9  
CANADA  
Tel: +1 905 569 6246  
Fax: +1 905 569 6244  
E-mail: [controls@cancoppas.com](mailto:controls@cancoppas.com)

**Asia Pacific Headquarters**  
Flowserve Pte Ltd.  
No. 12 Tuas Avenue 20  
REPUBLIC OF SINGAPORE 638824  
Tel: +65 (0) 687 98900  
Fax: +65 (0) 686 24940

**South Africa**  
Flowserve  
Unit 1, 12 Director Road  
Spartan Ext. 2  
1613 Kempton Park, Gauteng  
SOUTH AFRICA  
Tel: +27 (0) 11 397 3150  
Fax: +27 (0) 11 397 5300

**The Netherlands**  
Fabromatic BV  
Rechtzaad 17  
4703 RC Roosendaal  
THE NETHERLANDS  
Tel: +31 (0) 30 6771946  
Fax: +27 (0) 30 6772471  
E-mail: [fcinfo@flowserve.com](mailto:fcinfo@flowserve.com)

**China**  
Flowserve  
Hanwei Building  
No. 7 Guanghua Road  
Chao Yang District  
100004 Beijing  
CHINA  
Tel: +86 (10) 6561 1900  
Fax: +86 (10) 6561 1899

[www.pmv.nu](http://www.pmv.nu)