FLOWSERVE

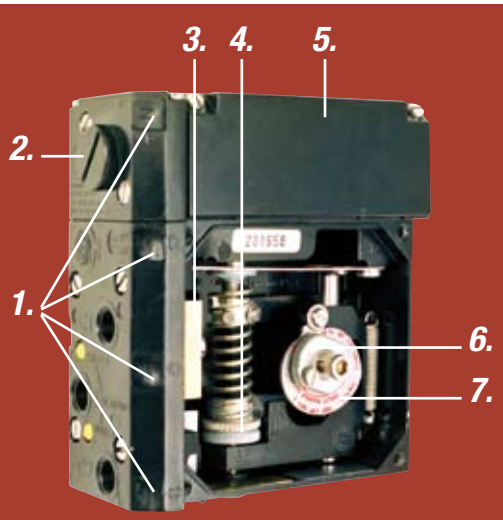
PMV

EP5 Electropneumatic positioner

Product
Information

Experience In Motion

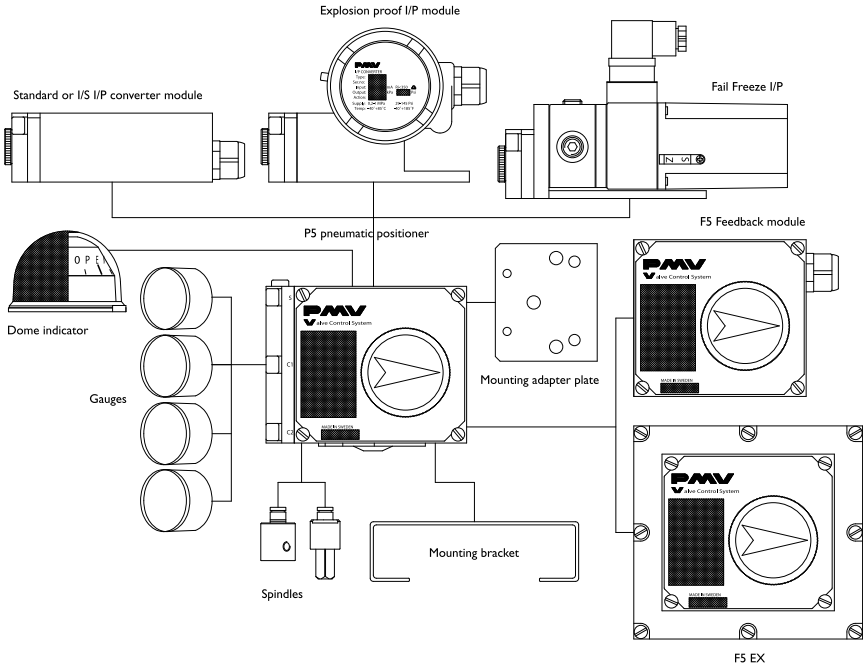
1. Gauge ports
2. Filter plug
3. Spool valve (High performance or Normal Gain)
4. Simple calibration of span & zero
5. I/P converter
6. Simple cam locking
7. Stainless cam

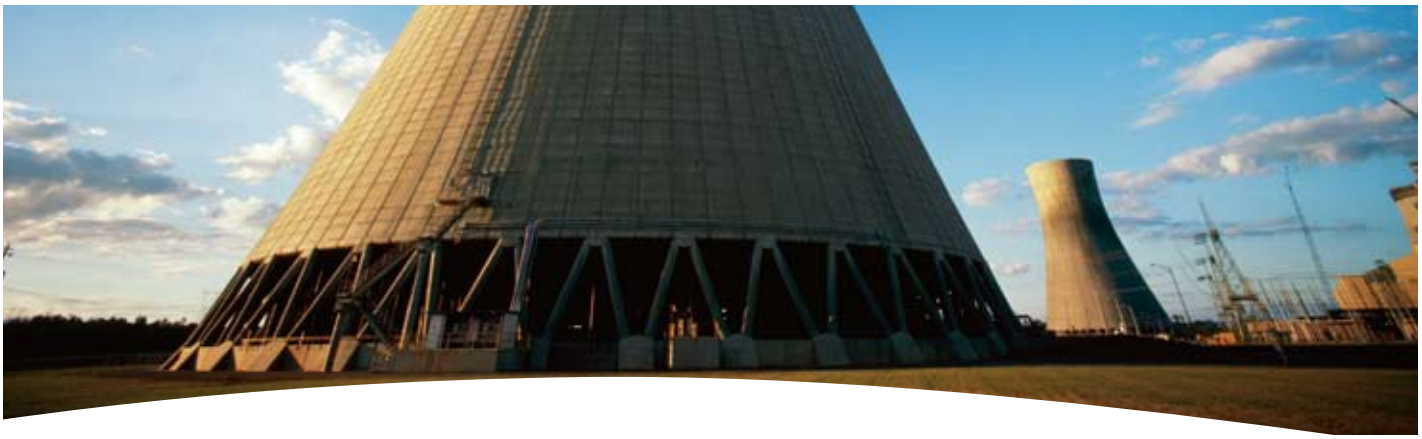


EP5 Electropneumatic Positioner

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)	
Counduit entry	1/2" NPT or M20	
Terminals	2.5 mm² (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 measureable	
Capacitance	Negligible	
Position sensivity	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 Ⓔx II 1 G	
	Flameproof**	EEX d IIC T4–T6 Ⓔx II 2 G	Non-electrical device P5 Ⓔx II 1 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

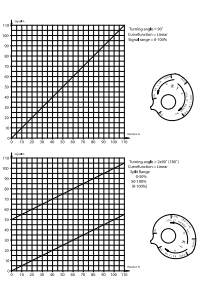
EP5 Series Coding

Model	
EP5XX	EP5 Double acting pneumatic
EP5FS	Fail freeze function
EP5IS	Intrinsically safe, ATEX, FM, CSA
EP5EU	Explosion proof ATEX
EP5US	Explosion proof CSA, FM
Spool valve	
HP	High performance
LB	Normal Gain
Connections	
N	NPT ¼" , El. ½" NPT
G	G ¼" air, M20 x 1,5 electric
M	NPT ¼" air, M20 x 1,5 electric
Surface treatment	
U	Epoxy coating
M	Tufram
Spindle	
01, 23 etc	01 to 39. See dwg SPNDLS_P5
Cam	
K01, K08 etc	K01 to K34
Front cover	
PV9DA*	90°, Direct, arrow indicator
Input signal	
4	4–20 input
Temperature	
N	Nitrile seals –20°C to +85°C
Q	Silicon seals, –40°C to +85°C

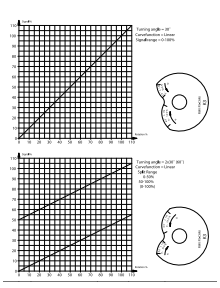
*For 30, 45, 60 deg rotation, change PV9 to PV3, PV4 or PV6

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

Cams



K1



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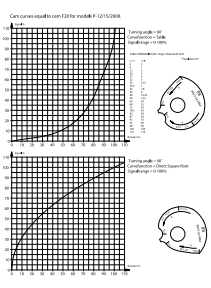
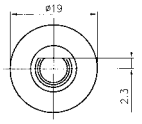
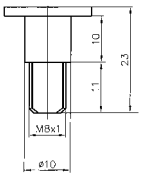


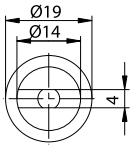
K8

Spindles



S 39





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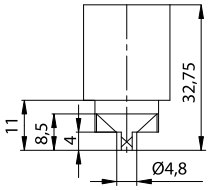

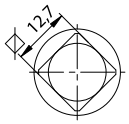

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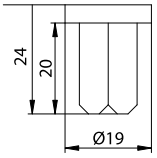
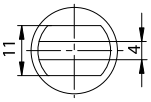
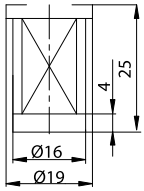
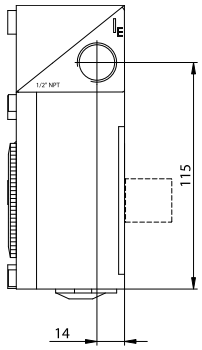


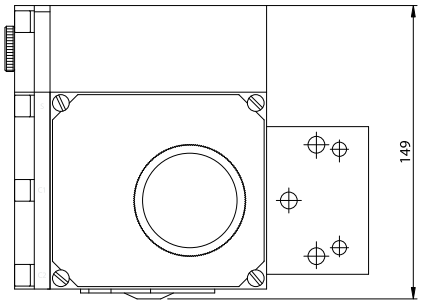


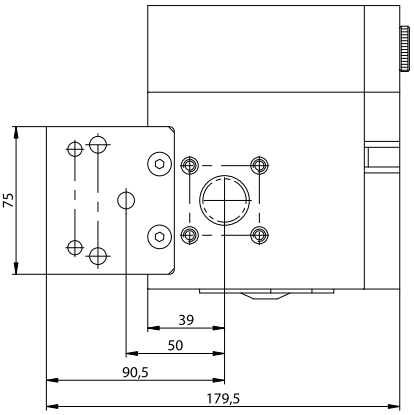
S36



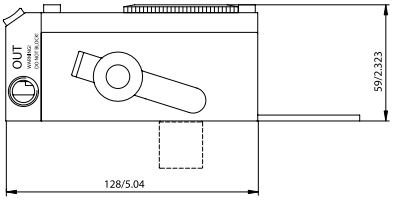
Dimensions drawings (mm)







EP5



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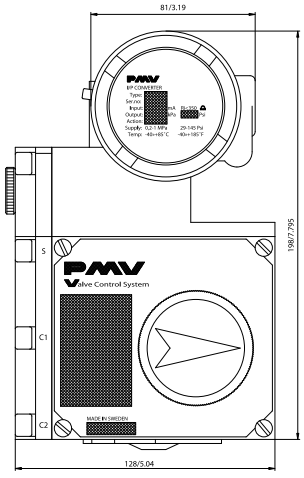
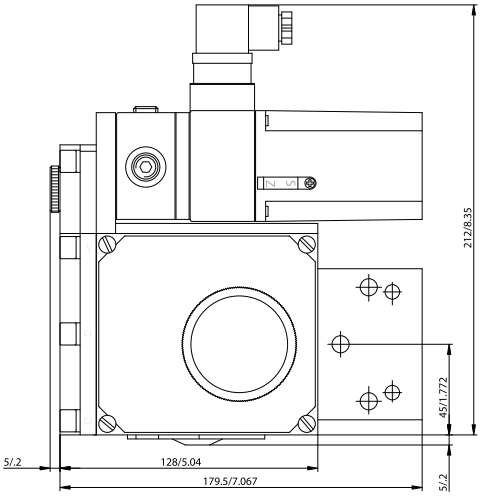


EP5 EX



EP5-FS

p/n: FCD PMENBR0006-02

PALMSTIERNAS

PALMSTIERNAS SVENSKA AB

Hazardous Locations

Intrinsically safe:

ATEX EEX ia IIC T4–T6 Ex II 1 G CSA, FM Class 1, Div 1, Group ABCD

Explosion proof:

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

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