



PMV Automation Positioners & Switch Boxes

Product Selection Guide



Designed for Automation

- Designed to fit all valve brands
- Multitude of features to fit all applications
- Modular flexible design to enable quick tailor-made solutions
- Multitude of mounting kits, spindle shafts and connections
- Reliable valve operation provided by robust and proven technology
- Very short lead-times

PNM
Valve Control System
Electro
Pneumatic
Positioner
EP5

Input: 4-20 mA
Supply: Max 1 MPa
Max 150 psi
Temp: -50 to +80°C
-4 to +198°F

CE

MADE IN SWEDEN
506149

PMV Automation Positioners & Switches

Product Selection Guide





	Single Acting & Double Acting	Linear & Rotary valves	Kits for direct mounting	Stainless steel/resin available	Zero Bleed air consumption	Fail Freeze option	Remote mounting option	Limit switch options	Max no of internal switches	Opt ext pressure gauges	Opt integr pressure sensors	4-20 mA position transmitter	3-15 psi input	4-20 mA input	AS-i / DeviceNet	Hart	Profibus PA	Profibus DP	Foundation Fieldbus	IEC ISA100 Wireless com	ValveSight diagnostics DTM	Partial Stroke Testing	LCD Display	ATEX haz loc certificates	IEC haz loc certificates	FM haz loc certificates	CSA haz loc certificates	SIL - Safety Integrity Level	
D30	x	x	x				x	x	2	x	x	x		x		x	x		x		x	x	IS	IS	In progress			D30	
D20	SA	x	x	SST			x	x	2	x	x	x		x		x	x		x		x	x	IS/Exd	IS	IS/NI/Exd	Exd		D20	
D3	x	x	x	SST	x	x	x	x	2	x	x	x		x		x	x	x	x	x	x	x	IS/Exd	Exd	Exd	Exd	2	D3	
P5/EP5	x	Rot						F5	F5	x		F5	x	x									IS/Exd	IS/Exd	IS/Exd	IS/Exd		P5/EP5	
F5		x	x					x	2			x											IS/Exd		IS/Exd	IS/Exd		F5	
WS/WM		Rot		Res				x	2						x								IS			IS/NI		WS/WM	
PS/PM		x		Res				x	4			x			x		x		x				IS/mb	IS	IS/NI	IS/NI	2	PS/PM	
FS/FM		Rot	x	Res				x	2														nA					FS/FM	
XCL/XML		x						x	4			x			x		x		x				Exd	Exd	IS	IS/NI/Exd	2	XCL/XML	
DS/DM		x		SST				x	4			x			x								Exd	Exd			2	DS/DM	
RS/RM	x	x			x			x	4						x		x		x									RS/RM	
Aviator II / BuSwitch	x	x			x			x	4						x		x		x				Exd	Exd	Exd	NI/Exd		Aviator II / BuSwitch	

Switch Boxes: Weather proof

Product			
Model	WS/WM - Compact design	PS/PM - Engineered resin	FS/FM - Direct mounting
Key features	Compact design Corrosion resistant option Open terminals for solenoid	Modular design Global certificates Corrosion resistant Low weight Open terminals for solenoid	Direct mounting (NAMUR holes 30x80/30x130 mm) Field attachable terminal Connection for solenoid LEDs indicating switching state, valve status, operating voltage
Indicator	Dome or Flat	Dome or Flat cover, no indicator	Dome
Enclosure material	Aluminum or PC	Fiberglass Reinforced Nylon	PC
Connections	Prewired terminals 2 or 4 x 1/2" NPT or 2 or 4 x M20	Prewired terminals 3 x 3/4" or 1/2" NPT or 3 x M20 or M25	M20 x 1.5
Switch options	Mech, proximity, inductive 2 x switches	Mech, proximity, inductive Up to 4 x switches	2 Inductive switches in 2-wire or 3-wires DC technology
Dimensions	120 x 80 x 59 mm Flat 120 x 80 x 106 mm Dome	146 x 140 x 103 mm Flat 146 x 140 x 154 mm Dome	191 x 98 x 78 mm
Special options	AS-i DeviceNet	Viton O-rings (low temp) AS-i DeviceNet	Modular housing configuration Metal protective cover resistant to 7 Joule impact
Ratings and certification	Aluminum enclosure, ATEX II 1G Ex ia IIC T4-T6, ATEX II 1G Ex ia IIB T4-T6, ATEX II 1D Ex ta IIIC T80 °C, T50085 °C Da cCSAus: Class I, II, III Div. 1&2 Grps. A-D & F-G IP66 / IP67, Nema 4 Resin Version General purpose only IP66 / IP67	ATEX II 1G Ex ia IIC T4-T6 ATEX II 1G Ex ia IIB T4-T6 ATEX II 2G Ex e mb IIC T5-T6 IECEx Ex ia IIC T4-T6 cFMus: Class I, II, III Div. 1&2 Grps. A -G cCSAus: Class I, II, III Div. 1&2 Grps. A-G SIL 2 IP66, Nema 4 x	IP66 / IP67 / IP69 K Available certifications II 3G Ex nA IIC T6 Gc II 3D Ex tc IIIC T80°C Dc
Further information/Literature	PMENBR0019	PMENBR0018	


Switch Boxes: Explosion proof

On/Off Control



Product				
Model	XCL/XML - Explosion proof	DS/DM - Highest explosion proof rating	RS/RM - Resin On Off control	XV Aviator II/BUSwitch - Aluminum On Off control
Key features	Global certificates Multiple switch options Transmitter available 3-way dribble control Open terminals for solenoid	Heavy duty design Explosion proof ATEX IIC North American approvals Gr. A-D Transmitter available Corrosion resistant option Open terminals for solenoid	Modular design Integrated coil and spool valve Corrosion resistant Several switch options	Integrated coil and spool valve Explosion proof Several switch options
Indicator	Dome or Flat cover, no indicator	Dome or Skirt	Dome or Flat cover, no indicator	Dome
Enclosure material	Aluminum	Aluminum or Stainless Steel	Fiberglass reinforced Nylon PA 6.6	Aluminum
Connections	Prewired terminals 2 x 3/4" NPT or 2 x M25	Prewired terminals 3 x 3/4" NPT or 3 x M25	Prewired terminals 3 x 3/4" or 1/2" NPT or 3 x M20 or M25	Prewired terminals 3 x 3/4" NPT
Switch options	Multiple options Up to 4 x switches	Multiple options Up to 4 x switches	Multiple options Up to 4 x switches	Multiple options Up to 4 x switches
Dimensions	157 x 135 x 87 mm Flat cover 157 x 135 x 148 mm Dome	150 x 137 x 100 mm	Flat cover: 146 x 140 (+solenoid) x 103 mm Dome: 146 x 140 (+solenoid) x 154 mm	Dome: 157 x 135 (+solenoid) x 148 mm
Special options	Viton O-rings (low temp) AS-i DeviceNet 4 - 20 mA transmitter Fieldbus/Profibus available Wireless IEC ISA100 Communication	Viton O-rings (low temp) AS-i DeviceNet 4 - 20 mA transmitter	High Cv spool valve Stainless steel spool valve 4-20mA Transmitter Viton O-rings AS-i DeviceNet Profibus Foundation Fieldbus	High Cv 1,8 or 4,5 spool valve Stainless steel spool valve AS-i Foundation Fieldbus DeviceNet Profibus Wireless IEC ISA100 Communication
Ratings and certification	ATEX II 2 G Ex d IIB T5, ATEX II 2 D Ex tD A21, IP 65, IECEx Ex d IIB T5 IECEX Ex tD A21 IP 65, InMetro BR Ex d IIB T5, Koshu Ex d IIB T5, cCSAus EX: Class I, II & III, Div. 1&2, Grps.C, D, E,F&G Class I, Div. 2, Grps. A,B,C&D. cCSAus IS: Class I, II, III Div. 1, Grps. A, B, C, D, E, F & G, SIL 2, IP66/67/Nema 4x	ATEX II 2GD Ex d IIC T4 Gb ATEX IIIC T113 °C Db IECEx Ex d IIC T4 Gb IECEx tb IIIC T113 °C Db cCSA Cl I, Div 1, Gr B,C,D T4, CSAus Cl I, Div 1, Gr A,B,C,D T4, SIL 2, IP66/Nema 4x	Pending IP66/Nema 4x	ATEX II 2G Ex d IIB T3/T4 CSA Class I, Div.1, Gr. C, D, Class II, Div.1 &2, Gr. E, F, G, Class III TYPE 4X Class I, Div.2, Gr. A, B, C, D, Class I, Zone 1, Gr. IIB Ex d IIB T3/T4 IP65 AEx d IIB T3/T4 IP65 IECEX Ex d IIB T3/T4 InMetro BR Ex d IIB T3/T4 FM Class I, II, III. Div. 1, Gr. A, B, C, D, E, F, G IP65/Nema 4x
Further information/Literature	AXENBR0006	PMENBR0020		AXENBR0006

Positioners: Digital

Diagnostic Software

Product				
Model	D30	D20	D3	ValveSight software (D3, D20, D30)
Key features	<ul style="list-style-type: none"> Very robust, modular, high capacity positioner Designed to fit large down to small valves Suitable for tough environments Instant quick calibration Friction clutch and spring loaded shaft Intrinsically safe Multiple of options incl 4-20 mA position feedback, integrated limit switches, 270 deg travel range, fail in last set position function, external pressure gauges, integrated pressure sensors, remote mounting 	<ul style="list-style-type: none"> Very high precision on small valves Friction clutch and spring loaded shaft Explosion proof Intrinsically safe Non incandive Very user friendly 	<ul style="list-style-type: none"> Extremely low air/energy consumption - zero bleed - meets EPA 6.0 SCFH leak limit => can use NG as supply medium Friction clutch and spring loaded shaft Explosion proof Intrinsically safe Multitude of options incl 4-20 mA position feedback, integrated limit switches, 270 deg travel range, fail in last set position function, external pressure gauges, integrated pressure sensors, remote mounting 	<ul style="list-style-type: none"> Online and Offline diagnostics of valve, actuator and positioner Health bars to help predict repairs and plan maintenance Graphs presenting trends of key valve health parameters PST / Partial Stroke Testing User-friendly positioner configurator Alarm limits easily customized FDT/DTM format
Communication	HART, Profibus PA, Foundation Fieldbus	HART, Profibus PA, Foundation Fieldbus	HART, Profibus PA and DP, Foundation Fieldbus, Wireless ISA100	HART, Profibus PA, Foundation Fieldbus
Output	Large Spool Valve Single acting Double acting	Small High Precision Poppet Valve Single acting	Digital Poppets Air Relay Single acting Double acting Fail Freeze option	ValveSight is a diagnostic solution for control valves that can be seamlessly integrated into a host control and/or plant asset management system.
Enclosure material	Aluminum	Aluminum, Stainless steel	Aluminum, Stainless steel	The power of ValveSight is the intelligent diagnostic engine – which is constantly monitoring the valve, actuator, positioner and control signal for patterns of behavior that may indicate a problem—that provides actionable advice PROACTIVELY.
Diagnostic	Standard Local alarm monitoring ValveSight FDT/DTM diagnostics AMS SnapOn application	Standard Local alarm monitoring ValveSight FDT/DTM diagnostics AMS SnapOn application	Standard Local alarm monitoring ValveSight FDT/DTM diagnostics for Hart, Profibus PA and Fieldbus AMS SnapOn application	
User interface	Status LED's, LCD + Menu interface, ValveSight	Status LED's, LCD + Menu interface, ValveSight	LCD + Menu interface, ValveSight	
Motion	Linear, Rotary, optional 270 deg	Linear, Rotary	Linear, Rotary, optional 270 deg	
Mounting option	IEC 534-6 (NAMUR) VDI/VDE 3845, 3847 Remote mounting Direct mounting for NAF Turnex, FlowAct	IEC 534-6 (NAMUR) VDI/VDE 3845, 3847 Remote mounting Direct mounting for FlowAct	IEC 534-6 (NAMUR) VDI/VDE 3845, 3847 Remote mounting Direct mounting for FlowAct	
Ratings and certification	IP66 / NEMA4x ATEX II 1 G Ex ia IIC T4 Ga IEC Ex ia IIC T4 Ga	IECEx Ex d IIB + H2, ATEX II 2G EEx d IIB + H2, ATEX II 2D T85°C Ta: 80°C D20E: CSA/FM Cl 1 Div 1 Gr B, C, D; Cl II Div 1, Gr E, F, G; Cl III Div 1, ATEX II 1G EEx ia IIC, FM Ex II 1G ia Cl 1, Zone 0&1 Gr. IIC, FM NI Cl 1 Div 2 Gr A-D and Cl 1 Zone 2, Gr IIC, InMetro, TR CU IP66, Nema 4 X	IECEx Ex d IIB + H2, ATEX II 2G EEx d IIB + H2, ATEX II 2D T85°C Ta: 80°C D3E: CSA/FM Cl 1 Div 1 Gr B, C, D; Cl II Div 1, Gr E, F, G; Cl III Div 1, CSA Cl 1, Div1&2, Gr B,C,D, Cl II, Div1&2, Gr E,F,G, Cl III, ATEX II 1G EEx ia IIC, NEPSI (IS and Eexd), SIL 2 IP66, Nema 4 X	
Further information/Literature	PMENBR0030	PMENBR0015	PMENBR0001	

Positioners: Analog

Product		
Model	P5/EP5	F5
Key features	<ul style="list-style-type: none"> • Modular, sturdy, simple reliable design • Single or Double acting • Easy calibration, external zero adjustment • Non interactive zero and span settings • High gain pilot valve • Low bleed version available • Vibration resistant, optional splined cam locking • Suitable for rotary or linear operation • Flat or dome indicator 	<ul style="list-style-type: none"> • Feedback function for P5/EP5 • Direct mounting to P5/EP5 • 2x switches, 4-20 mA feedback • Easy to setup and calibrate • Flat or dome indicator • Stand alone operation possible
Input signal	4 - 20 mA 3 -15 psi / 0.2 - 1 bar Split range	-
Output signal	0 - 100% of air supply	Switches and 4 - 20 mA
Air supply	Up to 10 bar /1 M Pa / 150 Psi	-
Air consumption (standard version)	1.32 nm ³ /h (at 6 bar supply pressure)	
Temperature range	-20 °C to +85 °C -40 °C to +85 °C	-40 °C to +85 °C
Mounting option	Namur standard	Namur standard
Design options	<ul style="list-style-type: none"> • Explosion Proof or Intrinsically Safe I/P Feedback Unit • Tufam coating option • Multiple cam alternatives • Dome indicators 	<ul style="list-style-type: none"> • Explosion Proof or Intrinsically Safe • Dome indicators • Tufam coating option
Ratings and certification	ATEX II 2 GD EEx d IIB + H2 T6 FM/CSA ClassI Div1 Gr. B, C, D; ClassII Div1 Gr. E, F, G; ClassIII IEC EEx d IIB+H2 T6 IP 66 ATEX ia IIC T4-T6 II 1G FM/CSA CI 1 Div 1 Gr ABCD IP66, Nema 4	ATEX II 2 GD EEx d IIB + H2 T6 FM/CSA ClassI Div1 Gr. B, C, D; ClassII Div1 Gr. E, F, G; ClassIII ATEX ia IIC T4 FM/CSA CI 1 Div 1 Gr C,D IP66, Nema 4
Further information/Literature	PMENBR0008 PMENBR0006	PMENBR0005-02



Additional models for covering special applications include:

- P1520 *Super High Temp*
- P1540 *High Vibration*
- PT700 *Pressure Transducer*
- P2000/2050 *Dirty Air / High Performance*

Contact PMV for more info!

P5/EP5 Option



Optional splined cam to ensure proper cam locking in severe service



D20 installed on control valve



EP5 on large quarter turn actuator



D30 Digital positioner on NAF control valve



P2000 on quarter turn actuator

Point of Contact

Rev: 18-1



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& Automation**
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SCAN ME