

# PMV Positioners with Advanced Digital Technology





PMV
Advanced
Digital
Technology







PMV positioners have, during the last 40 years, built a reputation for getting the job done. Now, a new level of operational awareness is available in plants, provided by an innovative and unique capability to monitor, analyze and communicate information to help plants being run more efficiently – regardless of where the device is installed.







D30 Single/Double Acting

PMV positioners can handle all major wired communication standards; Hart, Profibus PA, Profibus DP, Foundation Fieldbus and 4-20 mA (In & Out). Even the most basic 4-20 mA units without conventional communication can be set up by a PC or Hart handheld using a unique PMV designed communication adapter.

The new wireless ISA100 communication for modulating and On / Off control plus monitoring of valves, simplifies commissioning and setting up configurations by providing a flexible system which can be upgraded or modified by a computer in the control room rather than through expensive re-wiring of the plant. PMV's wireless positioner uses safety features such as dual backbone routers to provide redundant radio paths and additionally incorporates safety features such as user configurable behavior at loss of signal or power from the plant. It reduces the cost of extensive and expensive wiring and cabinets, while eliminating issues due to damaged/ageing wires and corroding connectors throughout the plant. Additionally, it is ideal for controlling and monitoring remotely located valves and for plants spread out over large areas.

The ValveSight<sup>™</sup> predictive diagnostics system provides a dashboard for two way communication between the valve and the operator. It taps into the valve and lets plant staff know not only detailed current status of the valve equipment but also provides indications on what is about to happen to help avoid unplanned stoppages of the plant.

# ValveSight provides:

- · On-line and off-line diagnostics of valve, actuator and positioner
- · Alarms explained in plain English
- Health bars to help enable predicting repairs and help plan maintenance to minimize costly process downtime
- · Graphs presenting trends of key valve health parameters
- PST (partial stroke) scheduled automatic tests or manual
- · Alarm limits are easily customized



ValveSight™ displays green health bars indicating normal conditions of valve, actuator, positioner and process signals.



ValveSight™ has detected an issue, initially yellow bar starts to grow as it warns of an emerging problem thus providing early heads up that maintenance is recommended to avoid unplanned stoppage, then when alarm limit is reached an alarm is generated – red bar in picture indicates ValveSight has sent an alarm to the control system of the plant.

PMV positioners can be ordered with a range of Single or Double acting air relays to cover controlling the smallest high precision applications up to providing 620 NLPM @ 6 bar / 22 SCFM @ 87 psi to handle large valves — the PMV device gets the job done regardless of valve size. To reduce electricity costs for compressed air, zero bleed functionality is available. This also enables meeting strict EPA standards regarding low emissions of NG powered valves, furthermore it provides for selectable Stay-in-place or Go-to-close or Go-to-open of valve at loss of power supply. Select between sturdy aluminum or stainless steel housings. Eexd, IS and NI are available.

The PMV D-series platform shares the same core software and electronics across the range but its modular concept allows for versions such as the D3, D20 and D30 to provide vastly different functionality. This means the D-series covers a wide range of specialist / niche applications.

Functionality	D20	D30	D3
Valve action Air relay	Single Acting Poppet valve	Single/Double Acting Spool valve	Single/Double Acting Zero bleed digital poppet
Air delivery	120 NLPM @ 6 bar / 4.2 SCFM @ 87 psi	620 NLPM @ 6 bar / 22 SCFM @ 87 psi	400 NLPM @ 6 bar / 13.8 SCFM @ 87 psi
Air consumption	2 NLPM @ 6 bar / 0.071 SCFM @ 87 psi	8 NLPM @ 6 bar / 0.28 SCFM @ 87 psi	<0.3 NLPM @ 6 bar / 0.01 SCFM @ 87 psi (Zero bleed)
User interface	LED indicators, single button operation	Graphics LCD plus LEDs, multi buttons	Graphics LCD, multi buttons
Hart, Profibus PA, Fieldbus communication	Yes	Yes	Yes
Wireless ISA100, Profibus DP communication	No	No	Yes
Explosion proof, Intrinsically safe, Non Incendive certificates	Eexd, IS, NI	No	Eexd, IS
SIL 2	No	No	Yes
Advanced diagnostics, ValveSight, DTM, Integrated pressure sensors	I YAS	Yes	Yes
Continuous position feedback, integrated limit switches	Yes	Yes	Yes
Mounting kits to cover all major valves incl for direct-mounting	Yes	Yes	Yes

The PMV positioner is designed not only to fit standard valves but also to allow for instant tailor-made solutions to satisfy an infinite variety of special applications. With PMV positioners and switch boxes you can expect class leading on-time delivery, excellent customer service and access to trained engineers when technical support is required.





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