SMARTLINE® MULTIVARIABLE SMV800 TRANSMITTER

An advanced, easy to use multivariable transmitter providing reliable and accurate measurement of direct process variables and dynamically compensated mass or volume flow.

Honeywell

SINGLE DEVICE, MULTIPLE MEASUREMENTS

SmartLine Multivariable SMV800 transmitter combines integrated sensor and microprocessor technologies as well as dynamic flow compensation capabilities to produce the most accurate and consistent flow measurement for gases, steam and liquids. It helps improve process efficiency and enhance plant performance.

SINGLE SMARTLINE MULTIVARIABLE TRANSMITTER:

Measures

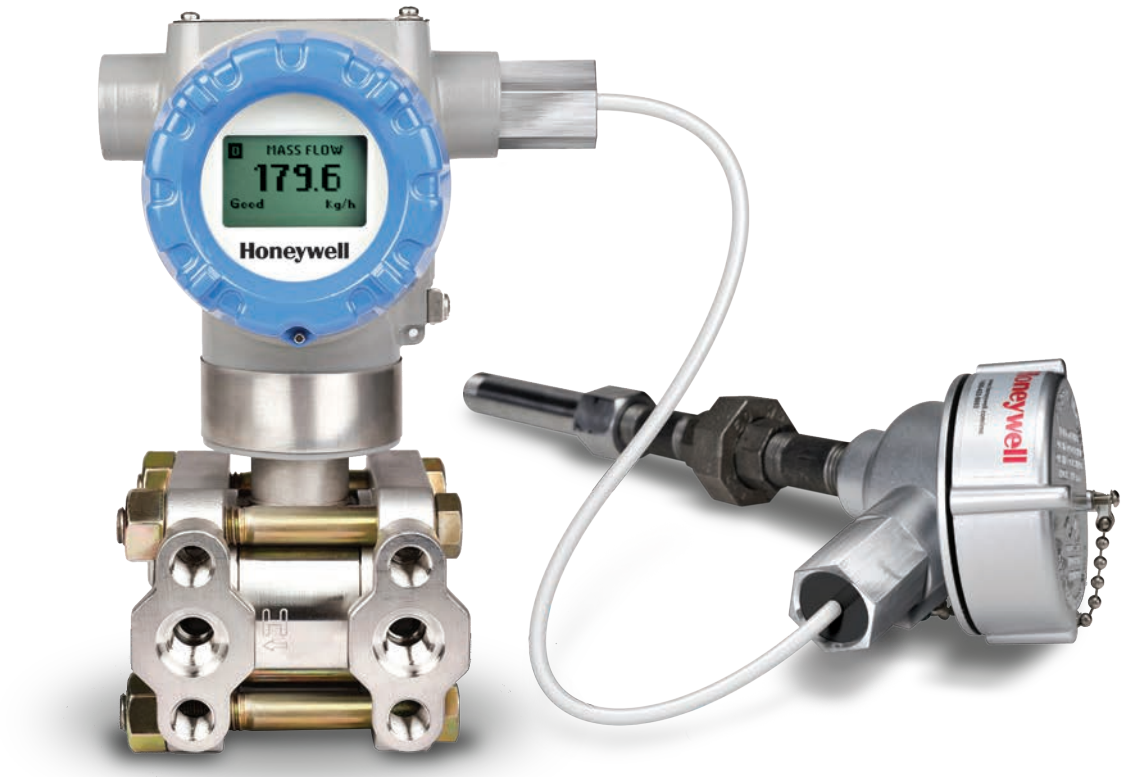
- Static Pressure
- Differential Pressure
- Process Temperature

Calculates

- Density and Viscosity
- Beta Ratio
- Gas Expansion Factor
- Discharge Coefficient
- Velocity of Approach
- Reynolds Number

Indicates & Transmits

- Differential Pressure
- Static Pressure
- Process Temperature
- Mass/Volume flow
- Total flow



Honeywell SmartLine Multivariable SMV800 Transmitter

IMPROVE MEASUREMENTS, INCREASE SAVINGS

Honeywell developed the SmartLine Multivariable SMV800 transmitters to be an accurate, repeatable and stable compensated flow measurement solution for use across industry verticals including Oil & Gas, Chemical, Petrochemical, Power, Glass, Pulp & Paper, Metal and other process industries.

SMARTLINE MULTIVARIABLE SMV800 OFFERS KEY BENEFITS BY:

- Reduced cabling, termination, interfacing and space requirements leading to savings in engineering, installation and maintenance cost without compromising accuracy and reliability.
- Decrease in number of pipe penetrations leading to reduction in potential leakage points thereby improving plant and personnel safety and environmental protection.
- On board flow computation capabilities complying to global engineering standards eliminates the need of additional device and associated integration, thereby helps reduce cost and improve accuracy.
- Reduced inventory and cost of ownership by utilizing thermocouple inputs for high temperature applications.
- Enhanced reliability through failsafe flow measurement and superior noise performance.
- Seamless integration with variety of host systems for accurate custody transfer of natural gas in oil & gas upstream and midstream segments helps in reducing engineering cost and maximizing profits.
- Improved accuracy in custody transfer applications for industrial gases and steam in process industries leading to improved profitability.
- Optimized combustion control in boilers and furnaces improves combustion efficiency, safety of boiler operations, reduces energy consumption and helps comply to emission regulations.
- Utilizing the compressed air systems at optimal efficiency using accurate flow measurement reduces energy wastage, consumption and costs.
- Reduced overall costs by eliminating theneed of special tools for set-up and configuration with easy to use device type manager (DTM) and PC based tools.

- Reduce instruments and weight by upto one-third.
- Minimized process intrusions improves safety.
- Suited for gases, steam, liquids, vapors and multiphase flow.
- Well covered in global engineering standards.
- Multiple communication protocol support, ease of integration with host systems.
- High galvanic isolation for better noise immunity and reliability.

BEST-IN-CLASS DESIGN AND PERFORMANCE

Designed for easy retrofit of legacy devices and drop-in replacement of existing installations, the Honeywell SmartLine Multivariable SMV800 transmitter delivers better performance, reliability, flexible construction and unique integration features when used with Honeywell's Experion® control system.

ADVANCED FLOW ALGORITHMS

SmartLine Multivariable SMV800 transmitter helps end-users address diverse flow applications. The instrument provides reliable, accurate and stable flow measurement with dynamic compensation algorithms compatible with a variety of flow elements and global engineering standards.

COMMUNICATION PROTOCOLS AND OUTPUTS

SMV800 transmitter supports multiple communication protocols, enabling wider applicability and easy integration with variety
of host systems including Remote Terminal
Units (RTUs), flow computers, Programmable Logic Controllers (PLCs), and Supervisory
Control and Data Acquisition (SCADA) systems etc.

- Analog (4-20ma DC)
- Honeywell Digitally Enhanced (DE)
- HART® 7
- Modbus RTU (RS-485)

SOLUTIONS VALUE

- Dynamic mass or volume flow measurement
- Universal process temperature input
- Industry leading accuracy and fast response time
- Low power consumption
- Display host variable on SMV Advanced display
- Galvanic isolation for better immunity and performance in noisy applications
- Basic configuration using external buttons for quick changes at site
- World-class overpressure protection
- Polarity insensitive power supply terminals
- Field upgradeable with license keys.

FLOW ALGORITHMS

- Orifice Plates (ASME MFC-3M, ISO 5167, AGA 3, GOST 8.586)
- Integral Orifice
- Small Bore Orifice (ASME MFC-14M)
- Conditional Orifice (ISO 5167-2003)
- Nozzles (ASME MFC-3M, ISO 5167, GOST 8.586)
- Venturi Tubes (ASME MFC-3M, ISO 5167, GOST)
- Averaging Pitot Tubes
- V-Cone®, Wafer Cone and Wedge

SIMPLE MODULAR ARCHITECTURE

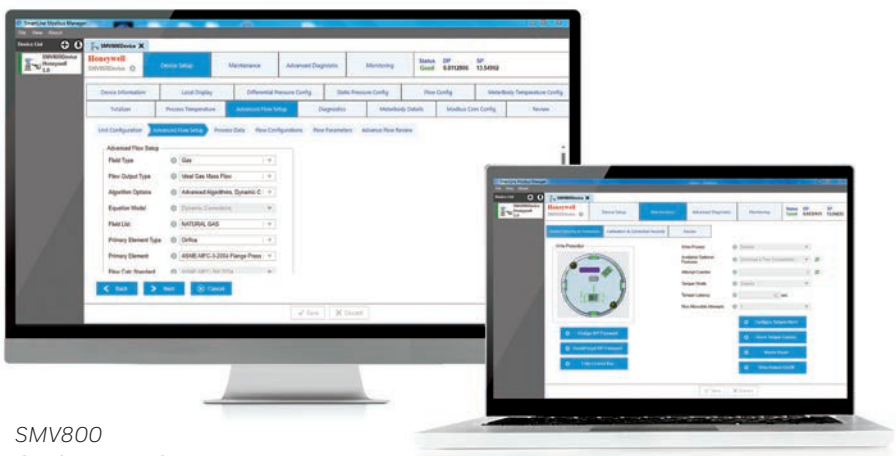
To help contain maintenance and inventory costs, all SMV800 transmitters are modular in design - supporting the end user's ability to replace meter bodies, indicators or change electronic modules without affecting overall performance. Each meter body is uniquely characterized to provide in-tolerance performance over a wide range of application variations in temperature and pressure, and due to the Honeywell advanced interface, electronic modules may be swapped without losing in-tolerance performance characteristics. Field-replaceable modules reduce downtime, and universal transmitter terminals save installation and startup time.

EASY AND INTUITIVE CONFIGURATION TOOLS

SMV800 transmitter provides flexibility of on site configuration of basic parameters using external buttons and a simple and easy to use intuitive, PC based software tool for complete configuration, calibration and monitoring.

CONFIGURATION TOOLS

- Large database of applicable process fluids
- Simplify complex flow configurations
- Configure flow and totalizer
- Simulation function to facilitate smooth commissioning
- Quick insight into device and process with advanced diagnostics screen
- Device upgrade capability by using valid license keys



SMV800
Configuration Screens

REALIZE THE ADVANTAGES FOR YOURSELF

SmartLine Multivariable SMV800 transmitter can help customers achieve significant savings on installation, lifecycle costs, and capital expenditures. This innovative instrument delivers value throughout the plant lifecycle, starting from planning and startup to operations and maintenance.

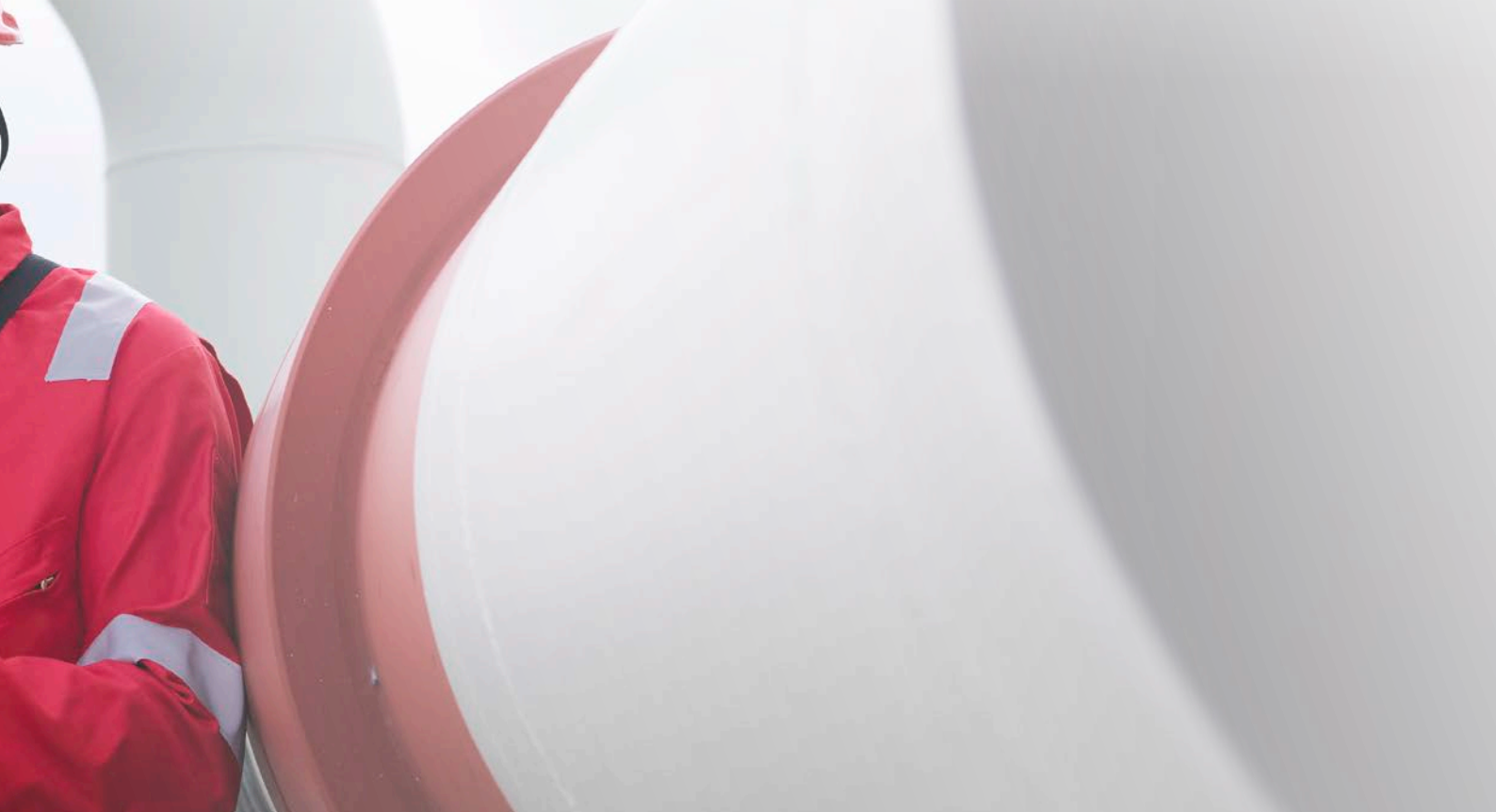
SMV800 also provides the lowest total cost of ownership, with its simple modularity reducing up to 30% of maintenance costs, and its universal calibration and input capability reducing inventory requirements by as much as 70%.

By dynamically compensating for process variables, SMV800 ensures the highest accuracy possible for mass and volumetric flow applications.

Furthermore, SMV800's fast response time of 144 ms leads to significantly tighter control. PV tracking helps monitor PV high and low values in order to have better process insights for improved yield and quality.

SEGMENTS AND APPLICATIONS

Measurement	Typical Applications	Core Verticals	Customer Segments
Steam Flow Measurement	• Boiler Outlet • Heating Process Fluids in Industries • In dryers in P&P • Steam Injection • Custody Transfer within a Plant	• O&G • Power • Chem/Petrochem • P&P	• End Users • Thermal OEMs • Element OEMs
Natural Gas Measurement	• NG Exploration at Well Heads • Custody Transfer in Pipelines • Fuel to Power Industrial Boilers and Furnaces • Drive Gas Turbines	• O&G • Power • Chem/Petrochem • Glass • Metal	• End Users • Energy Producers and Consumers • Thermal OEMs • Gas Skid OEMs
Air and Fuel Flow Measurement	• Optimize Combustion in Furnaces and Boilers • Compliance to Environmental Regulations	• O&G • Power • Glass • Metal • Chem/Petrochem • P&P	• End Users • Thermal OEMs
Compressed Air Flow Measurement	• Blast Air for Blast Furnaces • Production of Industrial Gases • N_2 Generation and Product Drying • Paint Shop and Product Finishing	• O&G • Power • Chem/Petrochem • Metals	• End Users
Measurement of Industrial Gases **– Nitrogen** **– Argon** **– Oxygen**	Production and Supply of N_2, O_2 and Ar in Air Separation Plant	• MMM • Glass • Fertilizers	• End Users • Gas Plant OEMs
Hydrogen Gas Flow Measurement	Hydrogenation Plants for Turbine Cooling	• Power	• End User • Turbine OEMs
Multiphase Flow measurement	O&G Multiphase flow measurement skid for well production and testing	• O&G	• MFM Skid OEMs • End Users



WHY HONEYWELL?

As a major automation supplier, Honeywell provides industry-leading measurement, control and safety system technology to process industry companies around the world. We offer proven field instrumentation solutions, with reliable products and systems that enable our customers to monitor and control their plant operations for optimal performance.

Honeywell has the application expertise and can help customers get optimum results from their process for better energy management.

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For More Information
To learn more about Honeywell SmartLine solutions, visit www.honeywellprocess.com or contact your Honeywell account manager.

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THE FUTURE IS WHAT WE MAKE IT

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