Endress+Hauser
People for Process Automation

Endress+Hauser releases Prowirl 200 vortex flowmeter for energy management

Meter measures flow, mass flow and temperature of steam, saturated steam, gases and liquids at temperatures up to 725°F.

September 2015— Endress+Hauser introduces the Prowirl 200 vortex flowmeter for measuring mass and energy flow of wet, saturated and superheated steam—plus gases, liquids and cryogenic fluids—at temperatures from -328 to 752 °F and pressures up to 3,625 psi. The flowmeter measures virtually every steam flow parameter of interest, making it suitable for use in industrial, building, utility and power generation applications.

The Prowirl 200 measures volume flow, mass flow, flow velocity, corrected volume flow, energy flow, heat flow difference, calculated saturated steam pressure, steam quality, condensate mass flow, Reynolds number and temperature. It also has three Totalizers.

The calculated values for mass flow and corrected volume flow depend on the specific steam states for superheated steam, saturated steam or wet steam.

The unit's flow computer calculates mass flow, heat flow, energy flow, density and specific enthalpy from the volume flow, temperature and pressure measurements, all based on international standard IAPWS-IF97 (ASME steam data).

When measuring mass flow, the Prowirl 200 has a wet steam detection feature that monitors condensate in the steam as condensate can reduce energy and cause safety issues. When it detects condensate, the Prowirl 200 triggers an alarm if steam quality drops below 80%. In applications involving superheated steam, the Prowirl 200 can trigger a saturated steam alarm when the value approaches the saturation curve.

Outputs are 4-20 mA with HART, Profibus PA or Foundation Fieldbus plus a pulse, frequency or switch output.

The Prowirl 200 meets IAPWS-IF97/ASME, NEL40, ISO 12213-2, ISO 6976, AGA NX-19, AGA5, SGERG 88 and linear equation standards for measuring steam, gas, air, natural gas, liquefied gas, water and other liquids.

The flow computer is pre-programmed for such as hydrogen, helium, neon, argon, krypton, xenon, nitrogen, oxygen, chlorine, ammonia, carbon monoxide, etc. Gas mixtures of up to eight components can be freely defined and programmed.

A remote sensor version is available where the sensor and transmitter are mounted separately and connected by a cable. Other options include a remote display, overvoltage protection, weather protection cover and a kit for mounting the transmitter on a post. Communication-specific options

include various Fieldgate gateway options for monitoring the device via a web browser, and a wireless HART adapter.

The Prowirl 200 vortex flowmeter is certified for use in hazardous areas per ATEX, IECEx, cCSAus, NEPSI and INMETRO, up to and including Class I, II and III, Division 1 and 2, and Groups A-G. It also meets EN 60529, DIN ISO 13359, EN 61010-1, IEC/EN 61326, NAMUR and ASME BPVC Section VIII, Division 1 equipment protection standards.

For more detailed technical information on the Prowirl 200 vortex flowmeter please go to the product page at: www.us.endress.com/prowirl-200-vortex-flowmeter.

About Endress+Hauser in the U.S.
Endress+Hauser is one of the largest instrument manufacturers in the United States' industrial automation industry – specializing in automation solutions for the Chemical, Food & Beverage, Oil & Gas, Water and Wastewater, Life Sciences, Power &Energy, Primaries, and Pulp & Paper Industries. Endress+Hauser, a Switzerland based company, first began operations in the U.S. in 1970. Since that time, Endress+Hauser has continued to invest in its U.S. operations - investing an average of 10% of its annual revenue into its infrastructure.

About the Endress+Hauser Group
Endress+Hauser is a global leader in measurement instrumentation, services and solutions for industrial process engineering. The Group employs 12,000 personnel across the globe, generating net sales of approximately $2.3 billion in 2014. Endress+Hauser supplies sensors, devices, systems and services for level, flow, pressure and temperature measurement as well as liquid analysis and measured value recording. The company supports its customers with automation, logistical and IT services and solutions.

For more information, please visit www.us.endress.com.

Contact: Crystal Hunt
Public Relations Manager
Endress+Hauser, Inc.
Phone: 317-535-1306 (office), 317-439-6426 (mobile)
Fax: 317-535-2171
crystal.hunt@us.endress.com
www.us.endress.com