

SmartLine Transmitters for the Gas Industry

Solution Note

Honeywell's SmartLine transmitters help ensure safe, reliable and efficient operations in the gas industry from the wellhead to the consumer. The accuracy of natural gas custody transfer measurement is dependent on the accuracy of two major input variables: flow rate and line pressure. SmartLine provides highly accurate pressure and temperature transmitters for high end custody transfer applications.

Today's highly volatile oil and gas industry demands flexibility in production to meet ever changing customer needs. Operating plants at peak efficiency while ensuring the safety of assets and people is critical to profitability. This sector has a long value chain, starting from the wellhead where crude oil and gasses are extracted from an underground reservoir and transported to a gas processing unit where gasses are separated and compressed. Compressed gasses are then transported via pipeline for consumption and further refining. This cycle of crude extraction till consumption involves multiple complex processes and dealing with extreme environmental conditions. Rugged, reliable and a highly precise measurement system plays a key role in making your infrastructure more efficient, safe and profitable.

Honeywell's SmartLine transmitters are designed on our next generation platform and incorporate a host of innovative features such as tamper alerts, advanced diagnostics, linear and predictable stability ensuring accurate and reliable measurements.



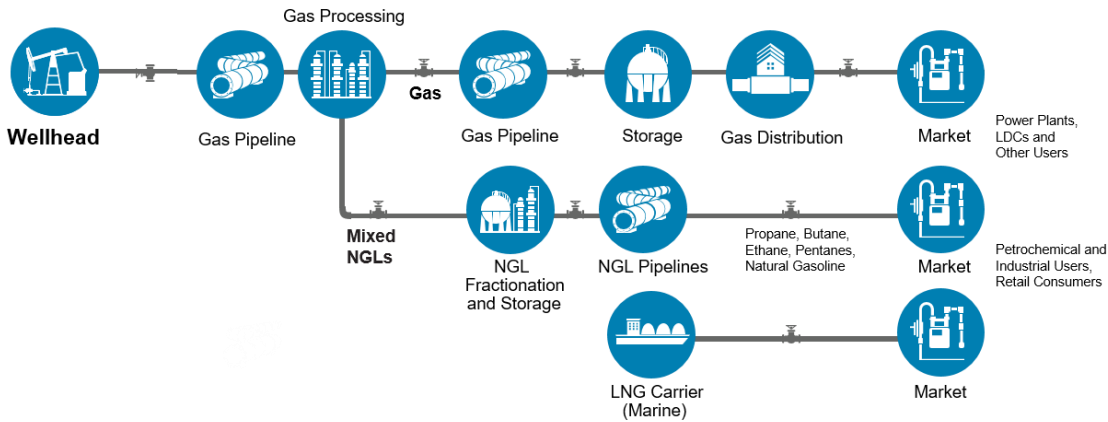
FEATURES & BENEFITS

- Tamper alerts help monitor unauthorized changes and enhance safety of assets and people.
- Fast response time for anti-surge application in gas compressor stations improve equipment health and reliability.
- Linear stability ensures longer calibration intervals in remote wellhead / pipeline infrastructure.
- Dual sensor input and redundancy ensures continuous plant operation.
- Advanced graphic display clearly displays process variable, trends and diagnostic information.
- Universal terminals reduce installation time.
- Field replaceable modules minimize downtime and help save on inventory cost.
- SmartLine Multivariable Transmitters reduce the number of instruments at wellheads.
- Advanced algorithm supports multiple primary flow elements.
- NACE approved transmitter materials and accessories for sour gas application.
- Measurement instrument directive (MID) helps meet the statutory needs in fiscal measurements.
- Device health-dashboard through Experion/FDM application.
- Sensor matching helps improve accuracy in temperature measurements.
- Full compliance to SIL2/3 requirements.

Combined with MID (Measurement Instrument Directive) approvals, SmartLine is the natural choice for fiscal measurements involving billing and levying taxes based on energy consumption. Whether you are an energy producer, distributor or consumer, Honeywell SmartLine transmitters will meet your measurement needs.

Honeywell is your single source trusted partner for end to end offering and support through instrument selection, validation, ordering, commissioning and maintenance. Global technical support and services keep your assets running highest levels of efficiency, safety and reliability.

Oil and Gas Value Chain and Its Typical Challenges



WELL HEAD	GAS PROCESSING	TRANSPORTATION AND STORAGE
<p>Customer Challenges:</p> <ul style="list-style-type: none"> • Efficient well head operations • Remote operations. • Safety of people and assets. 	<ul style="list-style-type: none"> • Continuous operation of compressor station. • Efficient fractionation and storage in gas processing section. • Plugging of production lines due to hydrate formation. 	<ul style="list-style-type: none"> • Accurate fiscal measurement to meet the statutory guidelines and reduce losses. • Leakage monitoring.
<p>Honeywell's Solutions:</p> <ul style="list-style-type: none"> • Continuous monitoring of flow, pressure and temperature with SmartLine offering to improve well head efficiency. • Advanced diagnostics and tamper alerts to prevent unauthorized configuration changes to enhance safety of assets and people. 	<ul style="list-style-type: none"> • Compressor line monitoring using the fast response of SmartLine Pressure Transmitter can help in timely opening of anti-surge valve and prevent tripping of compressor station. • Efficiency of the fractionation can be improved by using the highly accurate and linear stability of SmartLine transmitters. • Accurate and reliable temperature measurement with dual input hot redundant temperature measurement to avoid plugging of gas lines due to hydrate formation. 	<ul style="list-style-type: none"> • SmartLine Pressure and Temperature Transmitters have best-in-class accuracy and are MID approved for fiscal measurements. • Accurate, reliable and faster pressure measurement in pipelines to support leak detection applications.

SmartLine Transmitter Family

The SmartLine Pressure, Temperature, Level and Multivariable Transmitters deliver total value across the entire plant lifecycle, from construction to operations to maintenance.

Smart Performance: SmartLine accuracy, stability and response time result in tighter process control, improving product yield and quality.

Smart Design: SmartLine's innovative modular design reduces complexity by allowing quick on-field replacement of parts without taking transmitters out of process and thereby reducing downtime, maintenance costs and spares inventory. SmartLine's universal terminals reduce costly wiring errors, troubleshooting and re-work by allowing loop wiring to be reversed. Rich advanced display and local configuration capabilities enable field operators to more efficiently perform tasks, solve problems and avoid errors with no need for a handheld device.

Smart User Experience: Smart messaging, maintenance and safety features as well as unique integration with Honeywell's Experion® control system reduce design and operator errors and enable faster intervention to avoid process upsets.

SmartLine Support Services

This product comes with worldwide, premium Technical Assistance Center (TAC) support services, which are part of the Total Care Field Instrumentation Services. The TAC services, along with the services provided by the local distributor, are designed to help customers improve and extend the usage of their field instrumentation, providing a safer, more reliable and more efficient operation.

Honeywell's Total Care Field Instrumentation Services bring 30 years of experience in terminals and the expertise of over 1,000 contracted customers around the world. Backed by the Honeywell Operating System, our support teams deliver greater in-depth domain and product expertise. We'll provide the right solution to critical issues—the first time—for a safer, more reliable and more efficient operation.

For More Information

To learn more about how the Honeywell SmartLine transmitters help in the gas industry, visit www.honeywellprocess.com/smartline or contact your Honeywell account manager, authorized distributor or system integrator.

Honeywell Process Solutions

1250 West Sam Houston Parkway South
Houston, TX 77042

Honeywell House, Arlington Business Park
Bracknell, Berkshire, England RG12 1EB UK

Building #1,555 Huanke Road
.Zhangjiang Hi-Tech Park
Pudong Shanghai, China

www.honeywellprocess.com

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