GAS MEASUREMENT AND DATA MANAGEMENT SOLUTIONS

IIoT Ready Integrated Gas Metering Solutions to Improve Safety, Reliability and Efficiency
Solutions for Gas Transmission & Distribution

There is growing pressure on natural gas companies to deliver more energy, increase profitability and minimize financial losses. Greater capital expenditures are needed to ensure system integrity and replace aging infrastructure. At the same time, operators must reduce OPEX and tightly control capital budgets. This environment requires optimization of the distribution infrastructure used to deliver natural gas to households and commercial and industrial (C&I) consumers.

Why Honeywell?
- Over 150 years in the natural gas industry
- Extensive automation and control portfolio
- Global domain expertise with local support
- Broad suite of products from single instruments to turnkey solutions
- Seamless integration with plant-wide automation and security
- Guaranteed compliance and accuracy in custody transfer

The Expertise You Need
Now, more than ever, gas industry firms need the tools and know-how to effectively store, transport and deliver gas globally to meet rising demand. Gas metering data must be collected more frequently and in smaller increments. The trend towards smart metering has demonstrated the importance of meter data management (MDM) in realizing the full potential of advanced metering infrastructure (AMI).

Honeywell can help gas industry firms meet their rigorous business and operational demands. We offer a full breadth of Gas Measurement and Data Management Solutions that provide the lowest total cost of ownership (TCO) while optimizing the entire gas value chain. Our products and systems enable users to exercise full control over their regulating and measuring needs.

Fully Integrated Solution
The Honeywell Mercury family provides the highest standard for gas measurement products and corrected gas volume in the natural gas industry. Users migrating from legacy gas measurement and control systems can now take advantage of a complete, end-to-end solution that’s future-ready for emerging technologies like the Industrial Internet of Things (IIoT) and provides a host of valuable productivity benefits.

The Gas Measurement and Data Management Solutions portfolio is comprised of five main components:
- Best-in-class PTZ gas volume corrector and pressure recorders
- Highly accurate rotary gas meter
- Advanced 4G low power/wireless modem
- Innovative configuration and calibration software
- Powerful meter data management software

With a fully integrated platform for data collection and management, and remote meter monitoring, gas operators can improve the output from equipment assets, avoid unplanned downtime, implement preventive maintenance, and maximize their total return on investment (ROI).

Ultimately, Gas Measurement and Data Management Solutions help gas industry customers make their own businesses more profitable. By pairing advanced meter data management software with the latest instruments for gas volume correction, they’re able to enhance efficiency, reduce costs, and minimize risk to operation.

350 Series Gas Volume Corrector and Pressure Monitoring Platform
Local gas distribution companies utilize PTZ gas volume correctors to convert gas volume from operating conditions to reference pressure and temperature conditions. They are a key element in the gas value chain—from the meter to billing data. Gas Utilities typically use pressure recording devices to monitor low pressure points in the gas distribution network. Honeywell’s EC 350 Gas Volume Corrector and ER 350 Pressure Recorders are intended to simplify and optimize custody transfer and industrial measurement. This new electronic corrector platform offers best-in-class accuracy, expanded memory, advanced diagnostics and integrated cellular communications. The EC 350 and ER 350 also reduces maintenance requirements and is intuitive and simple to use.
Fall-back to UMTS/HSPA and GSM/GPRS.

Certification with AT&T, T-Mobile, Verizon and Rogers.

The Cloud Link 4G Modem provides:

- Its short-range wireless communication or serial connection.
- Integrated with the EC 350 volume corrector, it is designed for battery-powered applications and outdoor operations in hazardous locations.

Cloud Link 4G Modem

- Designed for battery-powered applications and outdoor operations in hazardous locations, the Cloud Link 4G Modem is an easy to configure and troubleshoot wireless cellular modem.
- Integrated with the EC 350 volume corrector, it is fully field-programmable and simple to use through its short-range wireless communication or serial interfaces, and associated set of programming software.

The Cloud Link 4G Modem provides:

- 4G LTE transparent serial communication unit.
- Certification with AT&T, T-Mobile, Verizon and Rogers.
- Fall-back to UMTS/HSPA and GSM/GPRS.
- RS232/485 interface.
- IPv4 and IPv6 support for future proof operation.
- Single digital input.
- Internal modem power control.
- Configuration via MasterLink (PC and app versions), over the air or using the serial link.

Thanks to its targeted design, the Cloud Link 4G Modem requires less power to operate than any other cellular modem available today.

MasterLink Configuration & Calibration Software

Utility companies in the gas transmission and distribution market need modern, future-proof solutions supporting key industry trends such as digital innovation, IIoT applications and the growth of mobile technology.

Honeywell’s MasterLink is an integrated software solution that works across the entire gas portfolio. It provides a single software package to configure, calibrate and access data from the gas volume corrector. The software’s intuitive dashboard enables users to quickly determine the overall health status of the instrument. Employing standardized terminology, it is easy to configure and calibrate instruments, import data, and generate reports and graphs—eliminating time-consuming manual effort.

MasterLink software provides:

- Automation of routine configuration and calibration tasks.
- Increased productivity and cost savings.
- Reduced time spent in the field.
- Ease of locating devices at unfamiliar sites.
- Comprehensive site survey to eliminate uncertainty before CAPEX decisions.
- Remote TAC support to minimize downtime.
- Integration to meter data management and cloud solutions.

The latest version of MasterLink software addresses the increasing adoption of mobile devices for functions like checking the health of field devices, downloading reports, instrument calibration and other activities once performed exclusively on a laptop. The software offers wireless connectivity and is compatible with the latest versions of both iOS and Android operating systems.

Honeywell’s value-added services have transformed the MasterLink software from simply a configuration and calibration tool to a robust collaboration solution driving increased productivity throughout the customer’s instrumentation maintenance department.

PowerSpring Meter Data Management System

Investing in smart grid and Advanced Metering Infrastructure (AMI) solutions is one thing, but capitalizing on the wealth of valuable data they deliver is something else. Success hinges on advanced meter data management technology, which can deliver meter data throughout the utility enterprise and turn it into valuable knowledge.

Honeywell’s PowerSpring MDM system is a critical component in realizing the full potential of AMI or smart metering, especially for industrial and commercial meters used in the gas distribution business. It enables users to access MasterLink metering data from the cloud and frame it into a manageable and familiar information. This approach eliminates operational blind spots, as well as isolated silos of important asset data.

PowerSpring MDM provides:

- Powerful data collection capabilities.
- Robust data management solution.
- Expanded repository for data storage.
- Web-based user interface.
- Customizable, flexible, and scalable architecture.

PowerSpring utilizes its database and communication technologies into a state-of-the-art Internet-based e-business platform. TDS stores and delivers accurate and timely energy consumption information information which customers need to manage their energy usage and costs. TDS also provides 24/7 access to meter data together with weather information, commodity data and industry news.

Being part of a fully integrated Honeywell’s Gas Measurement and Data Management Solutions TDS can be a trusted MDM with differentiated & valuable offerings. It provides the customer with a powerful customizable analytical tool and a trustworthy cash register.
Honeywell’s advanced security features provide:
• Role-based login mechanism with different levels of authorization for greater flexibility and secure access control
• SSL security for the EVC integrated radio
• Safe list to enter trusted IP addresses, thus preventing incoming connections from any unwanted device
• IPv6 built-in security to reduce chances of hacking and phishing
• Push notifications on critical alarms or events
• Cloud storage and AMR software providing redundancy on multiple levels
• Advanced event log to record each user access and changes made.

Benefits to Gas Operators
Reduce Operating Costs
• Reduce the number of trips to the field and minimize revenue losses thanks to optimal transducer accuracy and long-term stability
• Shorten service time and prevent mistakes using a plug-and-play transducer with preloaded coefficients
• Lower requirements to stock SHUs due to a wider dynamic range
• Minimize the need for field service calls with OTA firmware upgrade
• Locate installed assets faster and optimize service efficiency using GIS routing
• View critical information clearly on an auto-populated dashboard to streamline operator workload
• Simplify troubleshooting and reduce downtime with on-demand support and remote access
• Ensure diagnostics and alarms are captured and reported early as part of a fully integrated MDM solution.

Minimize Risk
• Simplify EVC installation, configuration and set-up while improving operational efficiency and reliability with an integrated cellular radio
• Perform crucial call-outs on alarms to the MDM system
• Reuse existing, field-proven components (e.g., UMB, digital input front-end, door lock mechanism, Alkaline battery pack) to minimize training and support requirements
• Survey the feasibility of sites by analyzing the available signal strengths
• Ensure safe data storage and minimize the risk of unavailability with cloud support
• Avert potential problems and perform root cause analysis with insightful analytics.

Simplify Routine Tasks
• Understand operational procedures more clearly using intuitive, field-proven technology
• Reduce configuration time with plug-and-play technology
• Employ automated, wizard-based software to guide technicians through routine tasks
• Identify performance issues with a single, integrated dashboard view of asset health
• Optimize data storage with one-touch upload to the cloud
• Simplify transfer of key data like audit trails, event logs and alarm logs via built-in email support
• Automate the collection of data across different meter technologies, evaluate its quality and publish the data to utility enterprise systems for billing, metering, operations and customer service
• Utilize short-range wireless communication for touch-free connectivity
• Ensure a fully redundant pulse counting mechanism for early detection of billing disputes.

Maximize Your ROI
• Identify alarms quickly and easily to assist field operators and save extra truck rolls
• Employ expert remote support to enhance asset utilization and keep the cash register running longer
• Adopt future-ready technologies to better manage field equipment, increase productivity and improve predictive maintenance
• Take advantage of free annual upgrades in tune with the supported OS version
• Benefit from the latest EVC technology without losing out on familiar and proven performance
• Improve auditing capabilities and mine data efficiently to support maximum resource utilization.

Protect Your Critical Assets
Gas industry operators can employ Honeywell’s Gas Measurement and Data Management Solutions with confidence. Our fully integrated, end-to-end platform for gas transmission and distribution is based on a single design standard and follows strict cyber security and IT data security guidelines uniformly across all components. As such, there is no weak link to be exploited by cyber criminals.
To learn more about Honeywell Smart Gas Metering Solutions, visit www.honeywellprocess.com or contact your Honeywell account manager.