Six Reasons to Adopt Honeywell’s EC 350 Electronic Volume Corrector

Modern EVC Technology Improves Critical Gas Industry Operations
In the natural gas business, strict government and industry standards dictate fiscal metering. Instrumentation must provide precise gas measurements in custody transfer applications. Local gas distribution companies supplying commercial and industrial customers require accurate gas measurement solutions. This equipment needs to be easy to maintain and reliable over extended operation.
Introduction

With dynamic price changes in the market, stricter regulations and aggressive competition, efficiency is more important than ever. Small changes in pressure and temperature conditions can often lead to large changes in gas volume. Advanced Electronic Volume Correctors should therefore serve a key element in the gas value chain, from the meter to billing data.

Leading suppliers such as Honeywell provide advanced PTZ gas volume correctors to convert gas volume from operating conditions to reference pressure and temperature conditions. Many regard an EVC as the cash register between the utility and customer.
Challenges in the Gas Industry

Local distribution companies (LDCs) and gas transmission firms are facing challenges on a number of fronts that have a major impact on their business results.

Gas industry organizations require a high level of performance and control over their transmission and distribution networks. They must also drive out significant costs and increase the visibility and consistency of operations.

Higher and More Volatile Gas Prices
Affects customer satisfaction and uncollectibles.

Greater Capital Expenditures
Needed to ensure system integrity and replace aging infrastructure.

Significant Changes in Gas Supply Dynamics
Driven by imports and new pipeline development.

Increased Scrutiny from Regulatory Commissions
Poses threat of fines and other penalties.

Growing Pressure from Investors
Demand to increase and sustain profits.
Why Upgrade to the Latest Technology?

Your gas industry organization is committed to making natural gas delivery more efficient and cost-effective. To do this, you need the most advanced gas measurement and control solutions possible.

Honeywell Can Help

The new EC 350 PTZ volume correctors are purpose-built, UMB- and rotary-mount devices, which simplify and optimize gas custody transfer and industrial measurement. This new electronic corrector platform replaces previous models with an array of best-in-class features.

Implement Honeywell’s Solution to Optimize Operations

When it comes to gas volume correction, the EC 350 line provides many advantages to help optimize operational performance. The basic design of the EVC allows for very precise measurements and long-term reliability. The units are fully field-programmable and easy to use through a multi-line keypad interface. The EC 350 ensures a low total cost of ownership and reduced operating expenses.
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Reason 1: Protect Your Investments

For gas transmission and distribution companies, equipment upgrades are a critical business initiative. The need to ensure reliable operations, and at the same time meet industry standards and reduce field service/maintenance requirements, has never been greater.

Companies are striving to make the most of their capital investments while planning for the future.

Take Advantage of Improved EVC Performance

- Benefit from the latest EVC technology without sacrificing the familiarity and proven performance of legacy Mercury Instruments Mini-Max® and Mini-AT equipment
- Employ leading-edge technologies, a robust processor design and expanded memory
- Utilize advanced diagnostics, integrated cellular communications and a reverse flow capability
- Additional key features include a highly accurate plug-and-play digital pressure transducer and an enclosure optimized for serviceability
- Long-term stability and extended battery life minimizes the need for site visits and simplifies field repairs.
Reason 2: Minimize Operational Risks

Now, more than ever, firms involved in the energy value chain must find ways to minimize risks in their operations while improving productivity, ensuring asset safety and reducing overall costs. The choice of an electronic volume corrector can have a significant impact on operational excellence.

Make a Safe Choice for Today’s Environment

Users of the tried-and-true Mini-Max and Mini-AT gas volume correctors can migrate to the EC 350 with confidence. The new volume corrector has many familiar characteristics of the legacy EVCs, while offering a wide range of innovative features. It is a safe choice for use in today’s demanding gas industry environment.

The EC 350 makes the best of 50 years of EVC development:

- Support for Mercury/Modbus protocols
- Easy connection of third-party devices
- Seamless integration with current billing systems
- Reuse field-proven components:
  - Use of proven messenger modem
  - Same UMB as Mini-Max
  - Digital input front-end identical to legacy EVC
  - Reuse of existing door lock/latch mechanism
  - Same alkaline battery pack
- MasterLink software support to minimize training.
Reason 3: Achieve Better Accuracy

Reliable, accurate and commonly agreed measurement methods are a first requirement for the trade of goods—particularly in the natural gas industry.

Electronic volume correctors have become the instrumentation choice of many utilities and industries. However, there is a need for EVCs with greater accuracy, since this technology is relied upon for the custody transfer of natural gas in residential, commercial and industrial applications around the globe.

Honeywell’s EC 350 corrector sets the standard for precision performance.

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Reason 3: Achieve Better Accuracy (cont.)

New Digital Plug-and-Play Pressure Transducer
Significantly more accurate than competing products in the market.

Exceptional High-Pressure Accuracy (< 0.1% of Full Scale)
Helps avoid revenue loss due to poor pressure transducer accuracy.

Storage of Pressure Coefficients and Calibration Information
Minimizes need for costly service calls and possible billing errors (technicians are no longer required to manually load transducer coefficients in the EVC).

Storage of Maximum Working Pressure with Pressure Transducer
Avoids liability issues due to selection of incorrect pressure transducer.

Wider Dynamic Range of Use
Reduces number of SKUs (inventory).

Ultra Low-Power Pressure Transducer Operation
Pressure calculation on host computer avoids cost and complexity of additional CPU.
Reason 4: Optimize Data Transmission

In order to meet the multitude of requirements for electronic volume correctors in the natural gas industry, it is necessary to be able to operate the devices in a flexible manner.

Experience has shown digital cellular radio delivers numerous efficiencies and operational benefits in gas applications. Recognizing this fact, Honeywell designed the EC 350 platform to utilize advanced integrated cellular radio technology, as well as a landline modem. The EVC is compatible with cellular devices for remote data transmission.

Realize the Benefits of Integrated Cellular Radio

- Delivers mission-critical data and returns quantifiable business benefits
- Employs multi-band UMTS/HSPA and CDMA/1XRTT digital cellular radio (upgradeable to LTE in future)
- Over-the-air (OTA) download of the instrument’s firmware

- Certified by AT&T, Rogers, Verizon, Aeris, Bell Mobility, Telus and T-Mobile networks
- Powered through dedicated battery module
- Five years of service on two Lithium D Cells
- Seamless integration with PowerSpring and TDS remote monitoring
- Supports use of Advanced Metering Infrastructure (AMI)/smart metering.
Reason 5: Simplify Day-to-Day Operation

A sophisticated instrument won’t provide value if it’s difficult for personnel to understand and use. That’s especially true of gas measurement and control equipment.

Honeywell specifically designed the EC 350 platform to streamline configuration and operation. The units incorporate an intuitive user interface that makes set-up much easier than with older EVCs or competitive products. Usability is also enhanced by a dynamic contrast LCD display with simple navigation and menus.

Improve Efficiency with Easier Configuration and Operation

- Multi-line display provides clear understanding of operating procedures
- Clear delineation of pulse output activity
- Trouble-free operation even in cold temperatures
- IrDA configuration with USB eliminates connection at rear of the instrument.
Reason 6: Enhance Auditing Capabilities

Accurate information is a must for effective risk and integrity management in gas operations. Easy access to the gas distribution audit trail enables firms to mine data and build a comprehensive understanding of asset properties and condition.

In the 1990s, the development of audit trails in electronic volume correction allowed data to be downloaded and electronically saved. This approach is perfected by the EC 350, which provides a configurable and mappable audit trail with options for multiple independent logs.

Track Valuable Assets with a Flexible Network Audit Trail

- Five independent loggers
- Up to 20 items per log
- Logging performed at 5-30 minute intervals, as well as hourly, daily or monthly
- Five times more memory than Mini-AT
- Configuration done through MasterLink programming software.
Honeywell—A Single Source for All Your Needs

Honeywell has spent decades developing products and services for measurement and control projects in the natural gas industry. We offer comprehensive solutions, whether networked or stand-alone, from a single dependable source.

Honeywell products are backed by a comprehensive warranty and a Technical Assistance Center staffed by personnel with solid product knowledge.

Make the Right Choice

Honeywell offers industry-leading control, measurement and analysis equipment to gas utilities and other users around the world. We are recognized for long-term reliability and performance; lowest total cost of ownership and installation; and outstanding technical training, field support and customer service. This includes a track record of providing backwards compatibility and a path forward for our customers.

Today, no manufacturer offers more products and services for the natural gas industry than Honeywell. With the most complete line of gas volume correctors, global service and support capabilities, we have the solution you need, ready for immediate delivery.

For More Information

To learn more about Honeywell’s Gas Measurement and Control Solutions, visit www.honeywellprocess.com or contact your Honeywell account manager in your country/region.