

# **EC 350 PTZ GAS VOLUME CORRECTORS ENABLING PRECISION GAS MEASUREMENT**

Proven Technology. Superior Performance.



Local gas distribution companies supplying commercial and industrial customers require gas measurement solutions that are accurate, easy to maintain and reliable over extended operation. A PTZ gas volume corrector converts gas volume from operating conditions to reference pressure and temperature conditions. Thus, it is a key element in the gas value chain, from the meter to billing data.

## Modern & Reliable

With the EC 350 family of PTZ gas volume correctors, gas distribution firms are assured of robust performance in standard meter applications. The basic design of these correctors allows for very precise measurements and long-term reliability. They are fully field-programmable and easy to use through a multi-line keypad interface. The EC 350 also ensures users of a low total cost of ownership and reduced operating expenses.

### With the EC 350 Platform, Users Benefit from:

- Secure your investment by selecting the latest technology
- Greater flexibility in gas volume correction
- Intuitive operation for all corrector applications
- Versatile UMB, rotary and wall-mount options
- Expanded communication options via internal 4G cellular modem
- IR port allowing for easy configuration
- Advanced audit trail
- Robust diagnostics to reduce maintenance
- Extended 10-year battery life
- Low ownership and operating costs.



Honeywell's EC 350 PTZ gas volume correctors are purpose-built, UMB- and rotary-mount devices, which are intended to simplify and optimize custody transfer and industrial measurement. This new electronic corrector platform offers best-in-class features such as improved accuracy, expanded memory, advanced diagnostics and integrated cellular communications. The EC 350 also reduces maintenance requirements and is intuitive and simple to use.



# State-of-the-Art Technology

When it comes to gas volume correction, the EC 350 line provides many operational advantages. These flexible devices have a common look and feel, and utilize proven technology such as a reverse flow capability. The volume correctors incorporate a highly accurate, plug-and-play digital pressure transducer and an enclosure optimized for serviceability. Featuring long-term stability and extended battery life, the EC 350 minimizes the need for site visits and simplifies field repairs.

**A Simple Move**  
The EC 350 is the first member of a new family of Electronic Volume Correctors and Dataloggers. This new platform comprises:

- EC 350**  
Electronic Volume Corrector
- ER 350**  
Electronic Recorder
- TC 350**  
Turbo Corrector (not yet available)
- MiWi350**  
MiWireless (not yet available)
- TM 350**  
Turbo Monitor (not yet available)

This New Evc Platform Leverages 40 Years of Experience and Reuses Some Important Design Characteristics of the Successful Mini-Max and Mini-AT Product Lines:

- **Same UMB**—The Mini-Max and Mini-AT pulse input subsystem has been improved over time to make it the most reliable pulsing assembly available in the market. The EC 350 inherits this superiority by using the same field-proven UMB and pulse-sensing mechanism as the Mini-Max.
- **Similar door lock and latch mechanism**—The EC 350 uses a robust latching and locking mechanism similar to the Mini-Max standard for ruggedness and reliability
- **Alkaline battery pack**—The Mini-Max battery pack is easy to open/close and snap in place. Using low-cost and easily disposable alkaline batteries is a very popular feature of the existing Mini-Max and Mini-AT grade products.
- **Rotary interface**
- **Messenger modem**
- **MasterLink**—The MasterLink software is widely used and recognized by most operators. The EC 350 simply appears as a new selection in the list of supported products.

# An Integrated Ecosystem



## EC 350 is Part of an Integrated Ecosystem That Also Comprises:

- **PowerSpring**—Aggregates large volumes of granular interval meter data, and then pre-processes it smartly and efficiently before such data is commercially processed by various other enterprise utility applications. PowerSpring MDM uses state-of-the-art technology to ensure compliance to stringent IT data security standards and user policies without compromising human factors and ease to use.
- **Total Data Services (TDS)**—TDS delivers the interval meter data (load profile) and optionally device alarms and gas system pressure data, directly to your desktop through a secure, customizable web portal.
- **MasterLink**—MasterLink was designed to offer a single software package to interact with Honeywell Mercury Instruments. MasterLink is a single software package to provide the ability to configure, calibrate, download data, create reports and graphs, diagnostic tools, communicate via serial, modem, ISP, wireless...and more.
- **MiWireless 350**—MiWireless is a flexible communication platform providing a wide range of power supply and cellular radio options tuned for the ER 350 and EC 350.
- **Honeywell Elster® Rotary Gas Meter RABO®** provides an exceptional performance and reliability, with low pressure drop, wide range ability, high maximum operating pressures and is perfectly integrated with the EC 350.

# Best-in-Class Features

- Field-proven Mini-Max UMB configuration
- Meter, rotary or wall-mount
- Corrected volume calculation according to AGA-7, AGA-8 gross method 1 & 2, AGA-8 Detailed and NX-19
- Multi-line dynamic contrast (LCD display)
- Easy navigation with intuitive menus
- Reverse flow measurement capability
  - Avoid potential fines for overbilling customers
- Optional 4G cellular radio or landline modem
  - Compatible with cellular devices for remote data transmission

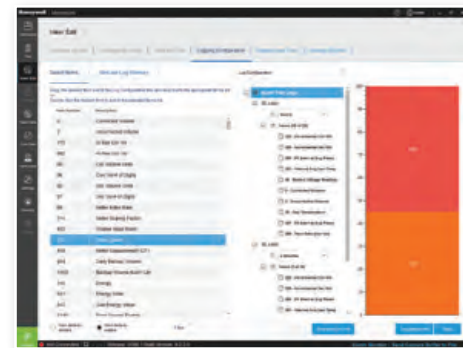


- Plug-and-play digital pressure transducer
  - Eliminates specialized training for field replacement
  - Better accuracy: 4 times more accurate than a MiniMax, therefore fewer units to stock



- Backwards compatibility with existing rotary meters
- Up to 10-year battery life
  - Significantly reduces cost-of-ownership
- Long-term stability and accuracy
  - Increases cycle time between recalibrations
- AMR/AMI support with serial interface and pulse output
- AMR-ready and compatible with Itron, Sensus, Aclara and other AMR devices

- Configurable and mappable audit trail
  - Includes options for multiple audit trail logs



- Outputs: 4 opto-couplers (3 pulse + 1 alarm)
- Embedded Modbus communication
  - Eliminates need for PT board
  - Supports Modbus ASCII, RTU and Enron (BSAP: future)
- Multiple, independent communication ports
  - Allows simultaneous access (multi-tasking) from all ports
  - IrDA interface operates at the same time as an RS port
- RS232/485 communication port
- Optional 4-20 mA (requires external loop power), additional RS232/485, Mux DI/DO board (future)
- IrDA port for configuration, item file or audit trail download
- Mercury MasterLink programming software
- Redundant uncorrected meter data reading
- Remote firmware upgradeability
  - Minimizes need to send technicians to the site
- Easy addition of I/O
  - Enables easy upgrades and retrofits in the field
- Flexible power supply options
  - Easily adapts to installation environment
- Universal AMR mounting
  - Does away with tampering
- CSA/MC/ATEX/IEC Ex/MID/EN12405 approvals

## The Easy Choice

Honeywell is more than just a gas measurement hardware provider—we deliver a complete solution for meter data collection and management. Our Total Data Services (TDS) provide a fully secured outsourcing alternative for data acquisition, remote monitoring, remote control and event notification applications. With TDS, Honeywell hosts the customer's metering data and makes it accessible via a secure web portal.

In addition to the instruments, software (MasterLink, PowerSpring) and web-based services (TDS) that Honeywell Mercury Instruments provides, the EC 350 volume correctors can be delivered pre-configured with cellular radio provisioned, activated and tested, ready to be integrated with TDS, Honeywell's PowerSpring Meter Data Management software or your favorite data collection software to ease IT integration in your Advanced Metering or Smart Metering infrastructure.

This ensures each installation is a success and limits the risks inherent to properly configuring the different elements of the puzzle.

## Make the Right Choice

Honeywell offers industry-leading gas control, measurement and analysis equipment to gas utilities and other users around the world. We have expertise along the entire gas supply chain, with products and systems that enable you to exercise full control over your regulating and measuring needs.

Honeywell is recognized for long-term reliability and performance; lowest total cost of ownership and installation; and outstanding technical training, field support and customer service.

We are committed to the gas measurement field, with a track record of providing backwards compatibility and a path forward for our customers.

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

Wherever you are, you can count on Honeywell's commitment to product quality, reliability, safety and performance.

Technical Specifications	
Accuracy	<ul style="list-style-type: none"> <li>• Maximum error over the full temperature range -40° to 170°F (-40° to 77°C) including linearity, repeatability and hysteresis:               <ul style="list-style-type: none"> <li>– Pressure: ±0.1% of full scale</li> <li>– Temperature: ±0.1% of reading</li> </ul> </li> <li>• Maximum error at reference conditions:               <ul style="list-style-type: none"> <li>– Pressure: ±0.04% of full scale</li> <li>– Temperature: ±0.1% of reading</li> </ul> </li> <li>• Long term drift:               <ul style="list-style-type: none"> <li>– Pressure: ±0.4% of full scale over 10 years</li> </ul> </li> <li>• Recommended calibration time: 10 years</li> </ul>
Environmental Conditions	<ul style="list-style-type: none"> <li>• Ambient temperature range: -40 to 170°F (-40° to 77°C)</li> <li>• Ambient humidity range: 0 to 95% non-condensing</li> </ul>
Power Supply Options	<ul style="list-style-type: none"> <li>• Alkaline receptacle (5-7 years)</li> <li>• Lithium batteries (10 years)</li> <li>• DC power</li> </ul>
Certifications	<ul style="list-style-type: none"> <li>• CSA C/US Class I, Div 2, Groups C&amp;D</li> <li>• CSA C/US Class I, Div 1, Groups C&amp;D</li> <li>• ATEX/IEC-Ex Ex ia IIB T3</li> <li>• ATEX/IEC-Ex ExnAnC IIB T3</li> </ul>
Metrological Approvals	<ul style="list-style-type: none"> <li>• Measurement Canada</li> <li>• MID EN12405</li> </ul>

Technical data is subject to change without notice.

### For more information

To learn more about Honeywell's Smart Gas Metering Solutions, visit [www.honeywellprocess.com](http://www.honeywellprocess.com) or contact your Honeywell account manager.

### Honeywell Process Solutions

1280 Kemper Meadow Drive  
 Cincinnati, OH 45240  
 Phone: +1 (855) 251-7065  
[www.honeywellprocess.com](http://www.honeywellprocess.com)

BR-15-13-US (Rev. 1) | 04/17  
 ©2017 Honeywell International Inc.

**Honeywell**