



# SCADA AUTOMATION & FLOW MEASUREMENT SOLUTIONS

Remote Automation Solutions, a division of Emerson Process Management™, is a world-leading supplier of flow computers, RTUs, and presets for your SCADA field equipment and automation system needs. Whether in the control room or a distant location, we use our industry expertise, leading technologies, secure and reliable products, and a global service and support network to partner with you to achieve accurate monitoring and control of your remotely located assets. Our team's expertise and extensive solutions knowledge, together with our Fisher® ROC and FloBoss™, Daniel® Presets, and Bristol® and ControlWave® products, provide you with the solutions and support you want and can depend on.

## WE INVITE YOU TO TAKE A TOUR OF BOOTH 113

### Production

1. FloBoss 103 is a cost-effective, single-run flow computer for DP metering of natural gas.
2. FloBoss 107 features modularity, versatility, performance, and ease of use in a flow computer and small RTU.
3. FloBoss 107E is an environmentally-packaged version of the FloBoss 107 with an available touchpad.
4. ROC809 is a versatile flow computer and RTU that supports multi-point I/O and communication modules.

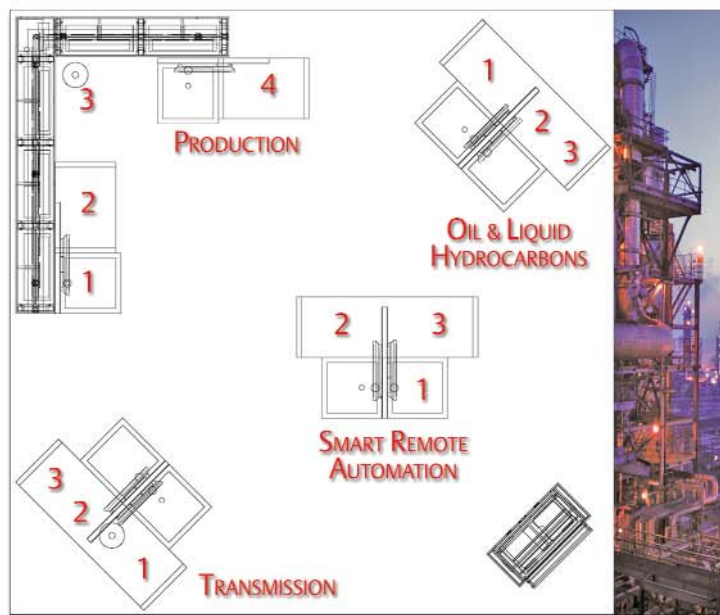
Production Manager, a powerful application package for managing wellhead production, plunger lift, and nomination control is demonstrated on the FloBoss 107E and ROC809.

### Transmission

1. ControlWave EFM is perfect for multi-run and multi-station sites where custody transfer measurement and complex control is required.
2. ControlWave PAC is a highly-adaptable, high-performance controller with exceptional networking capability for local plant and remote control applications.
3. Redundant ControlWave PAC comes in several configurations to suit your needs and your budget.

### Oil & Liquid Hydrocarbons

1. DL8000 Preset Controller is designed for controlling the loading and blending of hydrocarbon liquids in or out of transporting vessels such as tanker trucks, rail cars, ships, and storage tanks.
2. ROC800 Liquid Application Software gives the ROC800 product family the ability to perform liquid flow calculations, corrections, proving, and batch control.
3. FloBoss S600 is a panel mount flow computer suitable for fiscal and custody transfer applications.



### Smart Remote Automation

1. Smart Remote Automation, an extension of PlantWeb® digital plant architecture, and AMS™ Suite brings the power of predictive intelligence to your remote assets.
- 2-3. FOUNDATON™ fieldbus interfaces for ControlWave and ROC800 bring the benefits of digital field device accuracy and predictive diagnostics to remote RTU installations.



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Process Management

# NEW CONNECTIVITY ENHANCEMENTS DELIVER MORE SOLUTIONS

## FloBoss™ 107 Flow Computer

You now have more reasons than ever to choose the FloBoss 107 Flow Manager as the solution to your flow computing needs. Five new communication and I/O modules expand connectivity to host systems and to field instrumentation:

- Ethernet/USB module supports networking capability to host computers or intelligent field instruments
- HART® module supports wired point-to-point or multi-drop digital communication to HART-compatible devices
- Dial-up modem module supports communication over public telephone networks
- Configurable AO/DO module supports six channels of any combination of analog or digital outputs
- RTD module supports three meter runs of AGA7 measurement

The FloBoss 107 offers you benefits that research has shown flow computer users request. You also get all of the tried and true features of previous FloBoss units such as accurate AGA calculations, data archival, broad communications support, low power consumption, PID loop control, FST control, and operation over extreme temperatures.

### Applications

- Custody transfer measurement
- Wellhead measurement and control
- Well injection pressure monitoring
- Compressor fuel gas measurement
- Industrial gas usage measurement
- Commercial gas usage measurement

## ControlWave® and ROC800 RTUs

ROC800 customers have embraced HART® digital field technology for several years and now ControlWave Micro brings you the benefits of HART device connectivity through its new 8-channel HART/BTI card. ControlWave, using the HART card, is the only low-power SCADA RTU available in the marketplace with the flexibility to select high accuracy AI, AO, HART, or Bristol® BSAP protocol.

Expanding digital field technology even further are the new FOUNDATION™ fieldbus Interfaces for ControlWave and ROC800. FOUNDATION fieldbus provides the same accuracy benefits as HART while expanding device network connectivity and speed. We are the first to feature a truly easy-to-use configuration tool to integrate FOUNDATION fieldbus into remote measurement applications.

Emerson is the industry leader in implementing FOUNDATION fieldbus technology in its award-winning PlantWeb® architecture. Now, remote SCADA applications can realize these benefits:

- Increased accuracy and data quality
- Reduced installation and commissioning cost
- Reduced rewiring and I/O card cost
- Capability for remote predictive maintenance and asset management

### Applications

- Station control and compressor automation
- Multiple well pad installations
- Liquid measurement skids





# NEW PRODUCTS TO MEET YOUR LIQUID MEASUREMENT NEEDS

## DL8000 Preset Controller

The DL8000 is capable of performing the blending, measurement, control, and monitoring needed to provide highly productive and rapid operations for most common loading configurations used in the industry.

We have recently enhanced our DL8000 Preset Controller to make it the industry-leading solution to your liquid loading needs. These new enhancements include:

- An interface to Coriolis meters to measure mass and accurately account for vapor recovery
- The capability to directly measure and control up to six additives for higher quality recipes
- DanLoad protocol capability to make interfacing with legacy systems and replacing DanLoad 6000 presets faster and easier
- Choice of a lower-cost and lighter-weight enclosure that meets Class 1 Division 2 requirements
- An arm position indicator to more safely position loading arms

### Applications

- Hydrocarbon liquid loading for:
  - Tank trucks
  - Rail cars
  - Ships
  - Storage tanks
  - Other vessels loaded in batch style for transportation or storage
- Product blending for up to four products and measurement and control for up to six additives



## ROC800 Liquid Application Software

The ROC800 Liquid Application Software gives the ROC800 product family the ability to perform liquid flow calculations, corrections, and proving.

The software accepts volumetric and mass inputs from positive displacement, turbine, Coriolis, ultrasonic, or other flow measurement devices using single or dual pulse inputs with meter factors based on a single value or linearized over a flow range. It measures all of the recognized API hydrocarbon groups including: crude oils, refined products (gasoline, jet and diesel fuel), special applications, lubricating oils, and light hydrocarbons.

The software performs density, temperature, and pressure corrections using the latest standards, and accurately calculates delivered volumes at standard conditions of one atmosphere and a base temperature. The calculations are performed in accordance with the double precision math recommendations of the GPA and API.

Batches are easily configured to record flow for a run. They can start and stop based on a specified number of hours; on a daily, weekly or monthly basis; on an accumulated basis; or based on user-triggered events.

Proving users can configure the number of successful runs in a sequence, various timing parameters, and desired repeatability criteria. The proving application records and displays all data for a trial run in an easy to understand tabular format, with color coding to distinguish which runs are acceptable in the sequence.

### Applications

- Fiscal measurement
- Custody transfer
- Batching
- Meter proving



# MEETING GLOBAL OIL AND GAS INDUSTRY NEEDS

We deliver over 100 years of oil and gas industry experience and knowledge to our customers. That extensive experience and knowledge enables us to anticipate industry trends, address resulting changes, and pioneer innovative technologies to meet the demands of a world in action.

	Flow Computers	RTUs	Presets	SCADA Software
<b>Gas Industry</b>				
Production	✓	✓		✓
Transmission	✓	✓		✓
Distribution	✓	✓		✓
<b>Liquids Industry</b>				
Production	✓	✓		✓
Transmission	✓	✓		✓
Marketing Terminals	✓	✓	✓	
<b>Product Capabilities</b>				
Communication Flexibility	✓	✓	✓	✓
Field Mount	✓	✓	✓	
Panel Mount	✓	✓		
Scalable	✓	✓	✓	✓
Local Display	✓	✓	✓	
Multi-Run	✓	✓	✓	
Visual Configuration Tool	✓	✓	✓	✓
HART®	✓	✓	✓	
FOUNDATION™ Fieldbus	✓	✓	✓	
Global Metrology Approvals	✓	✓	✓	



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