The FloBoss™ 104 Flow Manager

FloBoss™

EMERSON™
Process Management

Now one flow computer is cost-effective for either rotary or turbine metering

FloBoss 104 Sensor Assembly and Rotary Interface

The FloBoss 104 is a compact, high-performance flow computer that is cost-effective for fiscal measurement. It performs API 21.1 compliant flow measurement when used with pulse-generating devices, such as rotary, turbine, and ultrasonic meters. The FloBoss 104 shares its advanced technology platform with the FloBoss 103, its orifice metering twin. The FloBoss 104 mounts directly to a rotary or turbine meter and easily handles the slow rotational speed of a rotary meter or the high-speed pulse trains generated by most turbine meters. When line pressure and temperature are measured along with the pulse train, the FloBoss 104 can provide high accuracy flow measurement.

The sensor assembly and rotary meter interface of the FloBoss 104 achieves superior performance over mechanical or conventional electronic measurement technology because it:

- Generates 1,000 pulses/revolution for high-resolution measurement
- Uses non-contact pulse sensing for outstanding reliability
- Has built-in pressure transducers to measure upstream and downstream pressure
- Provides bi-directional pulse detection and diagnostics for easy installation, setup, and maintenance
- Eliminates gear trains that load down the metering device and cause inaccuracies

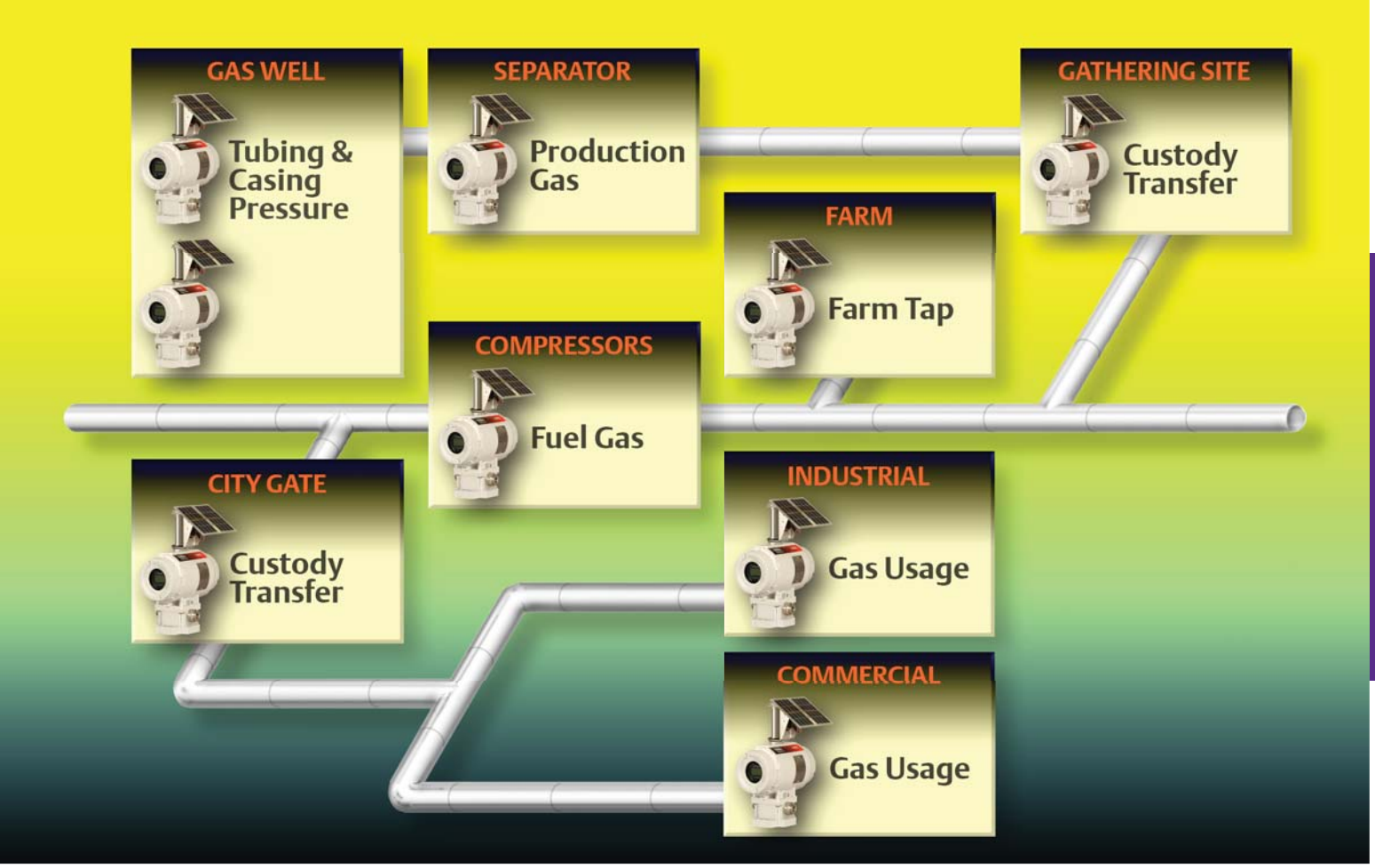
Applications

The FloBoss 104 is the ideal measurement solution for many natural gas applications. These include, but are not limited to:

- Well Injection (pressure)
- Tubing and Casing Pressure
- Custody Transfer
- Compressor Fuel Gas
- Farm Tap
- Industrial Usage
- Commercial Usage

API/AGA Compliant Flow Measurement

The FloBoss 104 calculates gas flow in accordance with AGA7 turbine flow calculations, using AGA8 compressibility methods. Pulse counts and pressure measurement come from the Sensor Assembly, and gas temperature is acquired through an external RTD probe.



The FloBoss 104 is ideal for many natural gas measurement applications

The FloBoss 104 maintains API Chapter 21.1-compliant historical archives for measured and calculated values, as well as events and alarms. Up to 35 standard history points can be archived on an hourly and daily basis for up to 35 days. An extended history database supports data logging at intervals from 1 to 60 minutes, giving operators added flexibility to meet the requirements of advanced applications.

Local or Host Operation

The FloBoss 104 is configured and operated on-site using our Windows®-based ROCLINK™ 800 Configuration Software. The FloBoss 104 can also be configured and operated from a computer running popular host software packages from Cygnet, Intellution, Standard Automation, US Data, and Wonderware, among others. Modbus and native ROC protocols are supported.

More Communication Choices

The FloBoss 104 offers a built-in EIA-485 port and an optional EIA-232 port or dial-up modem port for host communications. An optional spread-spectrum radio interface supports either FreeWave M-Series or MaxStream 9X Stream spreadspectrum radios that fit entirely within the FloBoss 104 enclosure.

Expandable I/O

You can add six channels of I/O to the FloBoss 104 to further increase its measurement and control capabilities. Five of the channels are selectable by type and the sixth channel is a discrete output. Parameters for each of the I/O channels are software configured.

Built-in Control Capability

The FloBoss 104 can perform PID control on one loop using one analog or two discrete outputs. A wide range of control problems can be solved easily and quickly with outstanding results. It can also perform logic and sequencing control by means of Function Sequence Tables (FSTs).

Low Power Consumption

The FloBoss 104 features low power consumption. It can operate for extended periods of time on just its built-in rechargeable batteries. Either a 2- or 5-watt solar panel is available to keep the batteries charged.

Rugged Construction

The explosion-proof, type 4 enclosure has a Class I Div. 1 rating when properly installed. When the optional solar panel mast is attached, the enclosure has a Class I Div. 2 rating. The optional two-line LCD display lets you view selected data stored in the FloBoss 104.

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Global Headquarters
Emerson Process Management
Remote Automation Solutions
6005 Rogerdale Road
Houston, TX, USA 77072
T +1 281 879 2699
F +1 281 988 4445

www.EmersonProcess.com/Remote

Europe
Emerson Process Management
Remote Automation Solutions
Unit 8, Waterfront Business Park
Dudley Road, Brierley Hill
Dudley, UK DY5 1LX
T +44 1384 487200
F +44 1384 487258

North America and Latin America
Emerson Process Management
Remote Automation Solutions
6005 Rogerdale Road
Houston, TX, USA 77072
T +1 281 879 2699
F +1 281 988 4445

Middle East and Africa
Emerson Process Management
Remote Automation Solutions
Emerson FZE
PO Box 17033
Jebel Ali Free Zone - South 2
Dubai, UAE
T +971 4 8118100
F +1 281 988 4445

Asia Pacific
Emerson Process Management
Remote Automation Solutions
1 Pandan Crescent
Singapore 128461
T +65 6777 8211
F +65 6777 0947

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