



FB1100 Quick Reference Guide

(New product - targets client replacement and standard metering applications where control is not required)

The FB1100 is a cost-effective, low-power, explosion-proof flow computer that measures and monitors gas flow for a single differential pressure meter run. As well as bringing a new level of measurement confidence, it is able to run independently without external power, for up to one year, making the FB1100 an ideal replacement for chart recorders.

Designed for simple configuration and ease of use, the cost effective FB1100 flow computer is focused on metering application where control is not required. The FB1100 provides a full audit trail, including enhanced history, alarm and event logs as well as giving a discrete output that can be used to drive an odorizer.

Features

- Increased measurement confidence, reduced measurement uncertainty
- API 21.1 compliant
- Measurement and I/O capability focused on metering applications
- Industry leading differential and static pressure measurement including 5-year stability
- High accuracy temperature measurement including curve matching with Callendar Van Dusen equation
- Reduced need to re-calibrate and less time spent on site
- Simplified configuration and set-up with new FBxConnect™ tool
- Cost-effective alternative to chart recorders
- Flexible design with power and communication options to meet site needs
- Standard firmware supports global calculations for DP metering including orifice, cone, Venturi, nozzle, and conditioning orifice plate
- Simple selection of engineering units to suit local requirements
- Global Hazardous Area Approvals – Class 1 Div 1 & 2, ATEX & IEC Ex d & Ex n
- Mobile SCADA allows secure local wireless access from safe area
- Ease of integration with support for Modbus, ROC, BSAP and DNP3 protocols
- Enhanced security prevents unauthorized access
- Enhanced alarming and historical data storage, improved audit trail

Power Options

- External DC supply
- External DC supply with internal battery back-up
- Solar panel charging internal battery, FB1100 has internal solar regulator
- Autonomous mode with internal battery powering the FB1100 for 12 months

The FB1100 running in “autonomous mode” will run off of a single battery for 12 months without recharging. The 12-month battery life is based on a typical remote application with local collection of history every month. This option is an ideal replacement for chart recorders. Significantly reducing measurement uncertainty and provides a complete electronic audit trail.

The solar powered option provides up to 20 days of autonomous operation without charge.

Internal battery option is not available with ATEX and IEC approvals.

Digital Output

The FB1100 includes a single digital output (DO) which provides the ability to control various digital output field devices. The DO channel is a solid-state normally open switch rated at 500 mA, enough to directly drive most odorizers or samplers. The DO channel can be software configured as a latched, toggled, momentary, timed duration output (TDO), or scaled pulse output.

Communications

- The FB1100 has three serial communications ports with support for RS-232, RS-422, and/or RS-485 operation, and one optional port that supports Mobile SCADA via Wi-Fi (802.11 b/g) communications.
- COM1 – 4-wire serial communications. Software selectable for EIA-232 (RS-232), EIA-422 (RS-422), or EIA-485 (RS-485) operation.
- COM2 – 2-wire serial communications. Software selectable for EIA-232 (RS-232) or EIA-485 (RS-485) operation.
- COM3 – 2-wire serial communications. Software selectable for EIA-232 (RS-232) or EIA-485 (RS-485) operation.
- COM4 – Mobile SCADA with Wi-Fi (802.11 b/g) communications (optional).

The FB1100 supports DNP3, Modbus slave (ASCII and RTU), BSAP and ROC protocols on all serial ports.

FB1000 & FB2000 Quick Comparison

	FB1100	FB1200	FB2100	FB2200
Hazardous Area				
Class 1 Div 1 & Ex d/Zone 1	Y	Y	N	N
Class 1 Div 1 & Ex n/Zone 2	Y	Y	Y	Y
Power Options				
External DC	Y	Y	Y	Y
Solar Power	Y	Y	Y	Y
12+ Month 'Unplugged'	Y	N	N	N
Meter Runs				
Single	Y	Y	Y	Y
Two	N	O	N	O
I/O Capability				
Local Display	O	O	O	O
MVS, RTD, & DO	Y	N	Y	N
MVS, RTD, & 2 DI/O/PI, 2 AI/O	N	Y	O	Y
MVS, RTD, & 6 DI/O/PI, 4 AI/O	N	O	N	N
MVS, RTD, & 6 DI/O/PI, 6 AI/O	N	N	N	O
MVS, RTD, & 10 DI/O/PI, 8 AI/O	N	N	N	O
Pulse Input	N	Y	O	Y
Two Integral Relay Outputs	N	N	P	P

	FB1100	FB1200	FB2100	FB2200
Communications				
Serial x3	Y	Y	Y	Y
Mobile SCADA (Wi-Fi)	O	O	O	O
Ethernet	N	Y	N	Y
DNP3	Y	Y	Y	Y
Modbus Slave	Y	Y	Y	Y
Modbus Master	N	Y	N	Y
ROC Legacy Protocol	Y	Y	Y	Y
BSAP Legacy Protocol	Y	Y	Y	Y
Control & Customization				
Simple Logic	N	O	N	O
PID Control	N	O	N	O
Other Features & Functions				
Station Totals, Rates, Alarms, & Logs	N	Y	N	Y
Gas Chromatograph Support	N	Y	N	Y
Security Intrusion Switch	N	N	O	O
Internal Radio	N	N	Y	Y

Legend			
Available as Standard	Y	Not Available	N
Available as Option	O	Pending Approval	P

