

Single Phase Digital Switchboard Monitor

High-Quality, Easy-to-Read Monitor with Universal Applications

Choice of Measurements

- AC Voltage
- AC Amperage
- AC Frequency
- DC Voltage
- DC Amperage
- Transducer Inputs (Wattage, VARs, etc.)
- Process Signals (Pressure, Temperature, etc.)

Features

- Highly Accurate 12-Bit Resolution
- 4-Digit Readout
- Any Scaling
- .8" Super-Large, High-Output LEDs
- Universal Power Supply
- Directly Replaces ANSI C39.1 Analog Meters

Description

The F Series Digital Switchboard Monitor is a bright, easy-to-read device that's perfect for Utility, Industrial and Power Generation Applications. It can display any AC or DC value, and has a 0-1 or 4-20mA Input for Process and Transducer Signals.

Superior Accuracy

The unit's 12-bit Analog-to-Digital Converter provides superb accuracy throughout the scale. This eliminates the chronic problem analog meters have at the low end. Resolution is often critical with a lightly loaded panel; this full 4-digit monitor has a resolution to 9999 counts.

Super-Large LED Display

The super-large, bright LED display can be read up to 300 feet away. This reduces user error and eliminates eyestrain.



Directly Replaces Analog Meters

Because the monitor fits a standard ANSI panel cutout, it's a quick and easy upgrade for your analog switchboard meters.

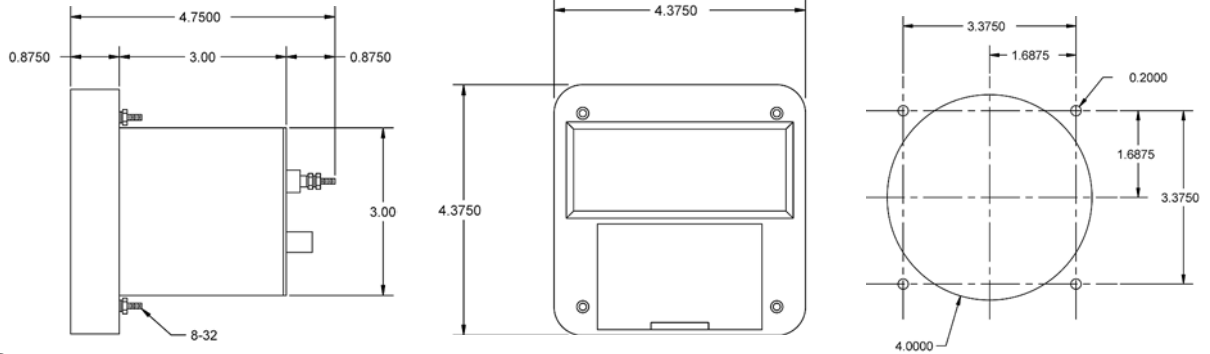
Rugged, Industrial Design

The top-quality LED Display, heavy-duty metal enclosure and electrically protected power supply make this a device that will operate reliably for many years.

Highly Accurate Frequency Measurement

The FF60-1000 models accurately measure Frequency using a Crystal Oscillator and a unique Phase Lock Loop scheme. This technique allows the unit to be calibration free. It also allows the monitor to reject noise on the incoming signal.

Dimensions



Specifications

ACCURACY

DC Volts and Amps:
0.05% of full scale, +1 digit

AC Volts and Amps:
0.2% of full scale, +1 digit

Resolution: 4 digits to 9999 counts

CONTROL POWER REQUIREMENTS

115V AC, +20%; 6VA, 47-440Hz (Suffix 115A)

230V AC, +20%; 6VA, 47-440Hz (Suffix 230A)

24-48V DC, +20%; 6VA (Suffix D)

125V AC/DC, +20%; 6VA (Suffix D2)

OPERATING TEMPERATURE

(-20 to +70)°C

BURDEN

Voltage: 0.1VA maximum
Current: 0.1VA maximum

CONSTRUCTION

Rugged metal casing with standard ANSI 39.1 cutout

SURGE WITHSTANDING

Continuous 200% of maximum rated value, per IEEE C37.90.1 and ANSI C62.41

FREQUENCY RANGE

45-1000Hz

UPDATE

600ms

Models

VOLTS		
AC Model	DC Model	Full-Scale range
FVA10	FVD10	9.999V
FVA100	FVD100	99.99V
FVA600	FVD600	600.0V

AMPS		
AC Model	DC Model	Full-Scale range
FAA10	FAD10	9.999A
FAA20	FAD20	25.00A

POTENTIAL TRANSFORMER MONITOR		
Model	Maximum Input	Full-Scale range
FVA120 (Use with 120V PTs. Specify Scaling)	300 V	Specify Scaling

CURRENT TRANSFORMER MONITOR		
Model	Maximum Input	Full-Scale range
FAA5 (Use with 5A CTs. Specify Scaling)	10A	Specify Scaling

DC SHUNT READOUT		
Model	Maximum Input	Full-Scale range
FAD50	100mV	Specify Scaling
FAD100 (Use with 50 and 100mV shunts)	200mV	Specify Scaling

TRANSDUCER READOUT		
Model	Maximum Input	Full-Scale range
FT1	2mA	Specify Scaling
FT20 (Use with 0-1 and 4-20mA transducers)	40mA	Specify Scaling

Ordering Info

Meter Type	Sensing Method	Power Supply*	Primary Scaling**
Option Numbers:	-	-	-
Example: FVD 600	- X	- 115 A	- 600.0
See Models Above	- X Averaging	- 115A	Write in scaling value and decimal point
	- RMS	-230A	
	True RMS	-D	
		-D2	

FREQUENCY MONITOR		
Model	Frequency Range	Frequency Resolution
*FF60	5.0 - 99.99 Hz	00.01 Hz
FF400	50.0 - 999.9 Hz	000.1 Hz
*FF10000	5 - 9999 Hz	0001 Hz

* D, D1, D2 power supply no longer supported for FF60 and FF1000.

** Scaling is limited to four digits, please also write in decimal point location.



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