



## Falcon F35 Series Digital Panel Meter

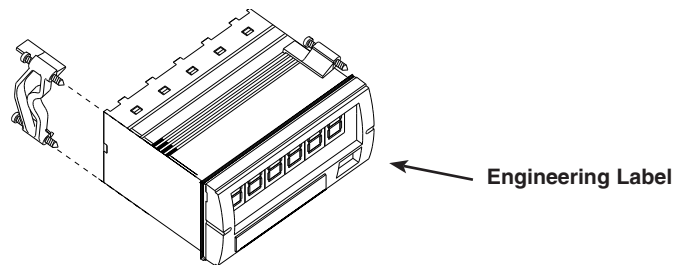
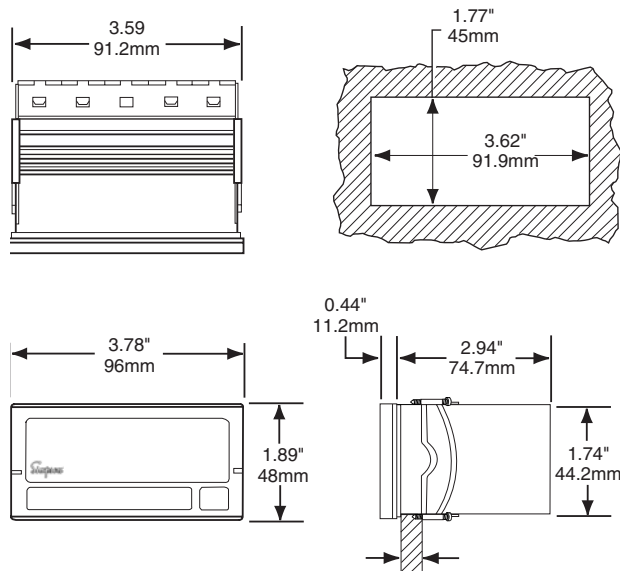
- Full 3-1/2 Digit, Bright Red 0.56" (14.2mm) Display
- Short 2.94" (74.7mm) Deep, 1/8 DIN Case
- Screw Terminal Connector for Easy Installation
- Two Frequency Ranges: 20-199.9Hz or 20-1999Hz
- Choice of RMS or Square Wave
- 120 or 220VAC Power



The Falcon Series digital indicators are premium quality 1/8 DIN meters for industrial applications. Two input ranges are available, 20-199.9Hz or 20-1999Hz, with choice of RMS or Square Wave. The Falcon has a 0.56" bright red LED display for high visibility. Compactly designed for applications

requiring minimal rear panel depth, the Falcon fits a standard 1/8 DIN panel cutout (92mm x 45mm) and requires less than 3" behind the panel. A screw terminal connector is a standard feature for easy wiring of the power supply and signal input connections.

### Installation and Panel Cutout



#### Mounting Requirements

The Falcon series 1/8 DIN indicators require a panel cutout of 1.77" (45mm) high by 3.62" (92mm) wide. To install the Falcon into a panel cutout, remove the clips from the side of the meter. Slide the meter through your panel cutout, then slide the mounting clips back on the meter. Press evenly to ensure a proper fit.

#### Engineering Label Placement

If replacement of the engineering unit label is required, place the tip of a ball-point pen into the small hole at the base of the engineering label in the bezel. Slide the label up until it pops out. Grasp and remove. Slide the new label half the distance in, then use the ball-point pen to slide it down into place.

# Specifications

## DISPLAY

**Type:** 7-segment, red LED  
**Height:** 0.56" (14.2mm)

**Overrange indication:** most significant digit = "1"; other digits blank

## POWER REQUIREMENTS

**AC Voltages:** 120 or 220VAC, ±10%  
 50/60Hz

**Power Consumption:** 2.5VA min./4VA max.

## ACCURACY @25° C

**200Hz:** ±0.2% of input ± 0.2Hz  
**2kHz:** ±0.2% of input ± 2Hz

**INPUT LEVEL:** 500mV to 250V RMS at 1.0MΩ impedance OR 5V to 24V Square Wave (DC offset 2V maximum)

**Resolution:** 200Hz = 0.1Hz  
 2kHz = 1Hz

## CONVERSION

**Technique:** Frequency-to-voltage  
**Rate:** 3 samples per second, nominal

## ENVIRONMENTAL

**Operating Temperature:** 0 to 55°C  
**Storage Temperature:** -10 to 60°C  
**Relative Humidity:** 0 to 85% non-condensing @ 40°C

## ENVIRONMENTAL Cont.

**Temperature Coefficient:** (±0.05% of input ± 0.5 count)/°C

**Warm-up Time:** Less than 15 minutes  
**Response Time:** Less than 3 seconds

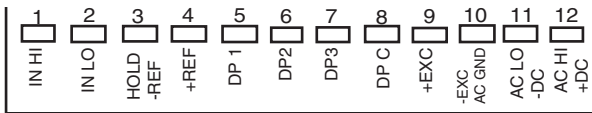
## MECHANICAL

**Bezel:** 3.78" x 1.89" x .44"  
 (96 x 48 x 11.2mm)

**Depth:** 2.94" (74.68mm)  
**Panel Cutout:** 3.62" X 1.8"  
 (91.9 x 45mm 1/8 DIN)

**Case Material:** 94V-1, UL rated Noryl®  
**Weight:** 9.0oz (255.1g)

# Wiring Diagram



**Input Signal:** Connect the signal to be monitored to the IN HI and IN LO terminals. IN HI is terminal #1, IN LO is terminal #2.

**Supply Power:** Connect the supply power to terminals #11 and #12. Note that if AC power is supplied, terminal #11 is for Neutral, and terminal #12 is for Hot. If DC power is used, terminal #11 is for -DC, and #12 is for +DC.

**Display Hold:** This feature allows you to hold the displayed value indefinitely. A remote switch can be used to make the connection. To activate the display hold, short terminal blocks #3 and #4 (Hold Ref and +Ref). This connection must be kept isolated from other circuitry. To hold multiple units, separate poles of the switch must be used to maintain the isolation.



These instruments are designed for maximum safety to the operator when mounted in a panel according to instructions. They are not to be used unmounted or for exploratory measurements in unknown circuits.

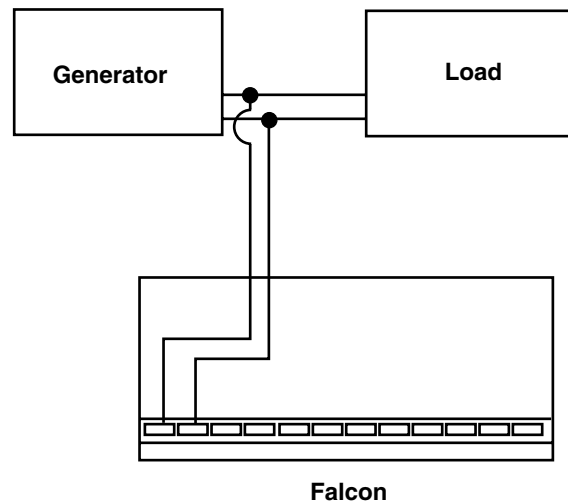


Before switching the instrument on, make sure the supply voltage matches the power source required of the instrument as indicated on the hook-up label affixed to the instrument.

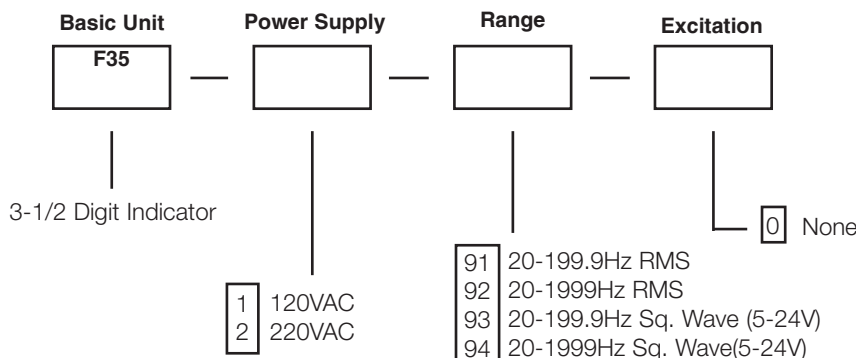
# Application Example

A plant engineer needs to monitor the frequency of the line supplying power to a conveyor motor and is looking for a meter with 1Hz display resolution and better than 0.5% accuracy. A Falcon Frequency indicator with 20-1999Hz input range meets these specifications.

The Falcon is installed in parallel with the generator and the conveyor motor, connected according to the wiring diagram.



# Ordering Information



# Safety Symbols



The WARNING sign denotes a hazard. It calls attention to a procedure, practice, or the like, which, if not correctly performed or adhered to, could result in personal injury.



The CAUTION sign denotes a hazard. It calls attention to an operating procedure, practice, or the like, which, if not correctly adhered to, could result in damage to or destruction of part or all the instrument.