



HAMPSHIRE CONTROLS CORP.

One Grove St./Box 516, Dover, NH 03820
(603) 749-9424 FAX:(603) 749-9433

AFM Airflow Monitor

INSTRUCTION MANUAL

INTRODUCTION

The AFM monitors the mass air flow rate in a duct system. It warns the user by audio and visual alarm that the air flow has decreased below a calibrated set point.

SPECIFICATIONS

The AFM is calibrated with an air flow alarm set point of 980 fpm @ 30°C. The probe is sensitive to small changes in air flow and temperature variation greater than $\pm 10^{\circ}\text{C}$ from the original calibration setpoint. When the AFM is used at a temperature outside this range recalibration is necessary. Recalibration should be made at the midpoint of the new desired operation temperature range. The ADJUST setting on the front panel allows fine adjustment of the air flow alarm setpoint with a range of 600-1200 fpm. Adjust only at a known air flow.

(Low Range: 50-700 fpm)

INSTALLATION

The AFM is supplied DC power by a transformer that plugs into a standard 120VAC 60HZ receptacle.

Affix the probe firmly in the duct so that the tip of the probe is in the center of the air-stream. Align the probe in the air stream so that the air flows through the slot in the end of the probe. A compression fitting with a suitable gland is recommended for holding the probe. After insertion and alignment of the probe the fitting is compressed to prevent air leakage. Failure to install the probe properly will result in an inaccurate reading of the air flow rate.



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OPERATION

- The green POWER light signals that power is supplied to the unit.
- A yellow CAUTION light will activate when the air flow drops below the alarm trigger setpoint.
- The unit will go into alarm if low airflow is maintained for several seconds. This alarm condition is indicated by: the red flashing WARNING light, the buzzer (providing that the AUDIO switch is switched on), and the relay.
- Operation returns to normal when the air flow rate increases to a value greater than the alarm trigger setpoint.

REMOTE MONITORING

The relay is a Single Pole Double Throw switch. The N.C. and C contacts will be closed when an alarm condition exists. An alarm condition exists if the airflow across the probe drops to a value below the setpoint or if power to the AFM is lost.

Relay rating is 30 volts at 1 amp. Exceeding this rating can damage the relay contacts. Inductive loads may produce transients that can exceed the contact rating and also result in relay damage.

LIMITED WARRANTY

Hampshire Controls Corp. warrants each item manufactured against defects in material and workmanship, when used as recommended, for a period of **one year** from original purchase. Products believed to have such defects must be returned to the factory by prepaid transportation.

Hampshire Controls obligation under this warranty is limited to the repair or replacement, at its option, of those items, which upon examination, prove to be defective. Such repair or replacement will be made without charge.

This warranty will be void if repairs or alterations are made or attempted without factory authorization, or if the item has been subject to misuse, negligence or accident.

Hampshire Controls Corp. assumes no liability for consequential damages of any kind. The purchaser, by acceptance of the product, assumes all liability of the consequences of its use or misuse.

Hampshire Controls Corp. makes no other warranty, whether expressed or implied, in connection with the sale or use of its products.