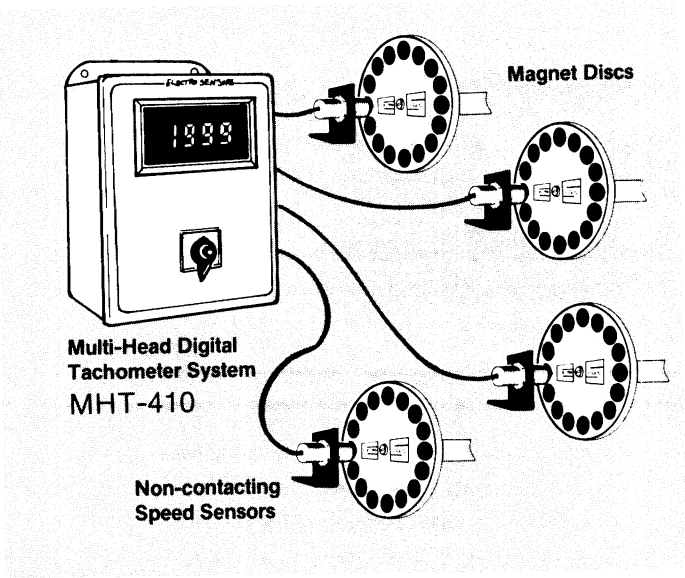
Electro-Sensors

Installation & Operating Instructions

Multi-head Tachometer System MHT-200 thru MHT-800 MHT-210 thru MHT-810



The multi-head system with readout allows monitoring of up to eight remote processes with one centrally located display. Advantages include immediate updated status of the process which saves time and productivity. The system is standard with either an analog or digital display.

INSTALLATION INSTRUCTIONS

All shafts to be monitored must have the same unit of calibration (RPM, FPM, GPM, etc.) and have the same speed ratio.

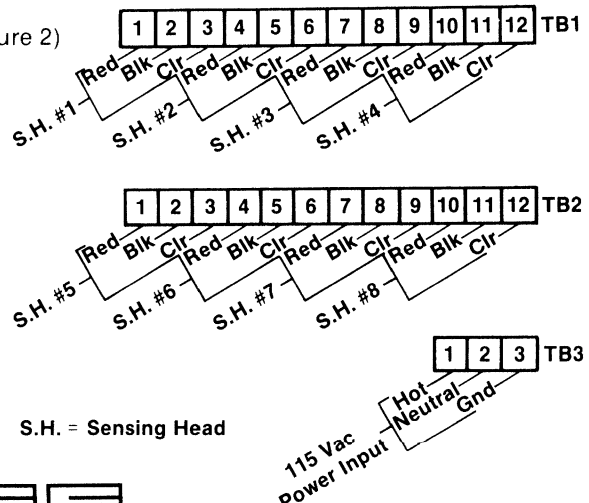
Follow the instructions from ES 155 for digital systems or ES 125 for analog systems (enclosed) for installation of magnet disc or magnet wrap and sensing head.

Wiring Connections

Apply 115Vac power to terminal strip TB3 by attaching the hot lead to terminal 1, the neutral lead to terminal 2 and the ground lead to terminal 3. (See figure 2.)

Sensing head connection is made by following termination directions outlined in figure 2. The clear lead and the shield should be terminated together.

(figure 2)



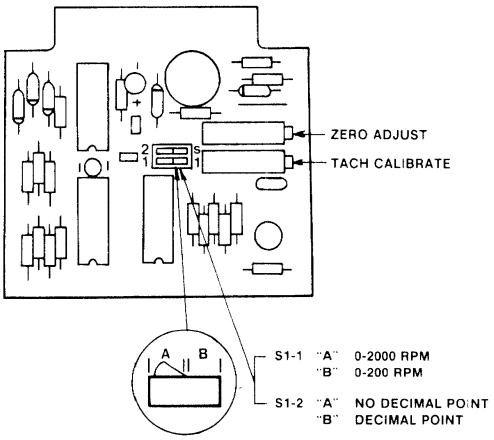
S.H. = Sensing Head

Meter Calibration/Digital

Meters may be calibrated in the 0-200 RPM or the 0-2000 RPM range. To set range, the upper printed circuit card must be removed from the enclosure. Range is selected by use of the switch (S1) on figure 3. With the S1-1 switch in the "A" position, the speed range is set for 0-2000RPM. When the switch is moved to the "B" position, the speed range is set for 0-200 RPM.

A decimal point may be inserted in the display (tenths only) by assuring that the switch (S1-2) is in the "B" position as illustrated in figure 3. When the switch is in the "A" position, no decimal point will be evident.

(figure 3)



With all the monitored shafts at rest and 115Vac applied, adjust the Zero Adjust Pot (figure 4) for a meter reading of zero (CW to increase, CCW to decrease). After calibrating the Zero Adjust, run all the shafts at their known full-operating speed. Using the front cover switch, select the shaft that is turning at the highest RPM rate. Adjust the Tach Cal. Pot

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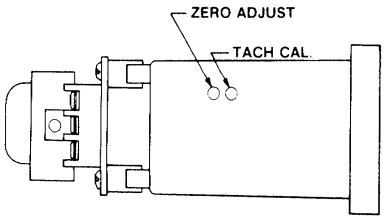
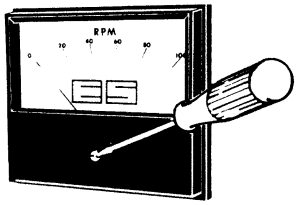
(figure 4)



(figure 4) to reflect the known speed (CW to increase, CCW to decrease). If calibration is desired on a percentage basis, also use the fastest turning shaft and set the meter for 100. Since there is interaction between the zero and gain adjustments, it is recommended to repeat the calibration procedure to obtain the most accurate speed readings.

Selection of status for a particular monitored process is made with the selector switch on the front cover.

(figure 5)



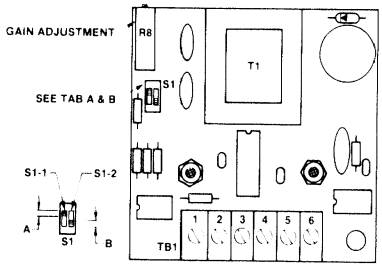
Meter Calibration/Analog

The Analog System will display actual speed or percentage of speed depending on how the meter face is calibrated.

An accurate zero reading is attained by adjusting the screw below the meter face (see figure 5), until a zero reading is evident. Zero adjustment must be made only with the monitored shaft at rest. This single adjustment provides an accurate zero reading for each sensing head position.

Before meter calibration can be performed, selections must be made on S1 (figure 6). S1-2 is for low-speed filtering and should be ON ("A" position) when operating in the 0-50RPM range and OFF ("B" position) when operating higher than 50RPM. S1-1 is a range selector; "A" position = 0-500RPM operating range and "B" position = 0-5000RPM range.

(figure 6)



TAB A	
S1-2 POS.	RANGE RPM
A	0-50
B	50 & UP

TAB B	
S1-1 POS.	RANGE RPM
A	0-500
B	0-5000

In order to calibrate the gain adjustment, each monitored shaft must be turning at full-operating speed. If the meter is to display actual speed, the full-operating speed must be known. For percentage calibration, full-operating speed is equivalent to full-scale deflection (i.e., 100%). The gain adjustment must be made for the fastest turning shaft.

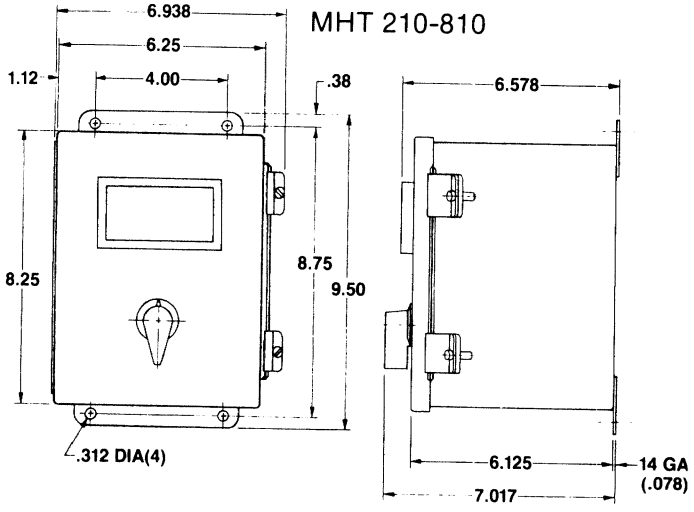
Select the station be be calibrated with the front cover switch. With the shaft running at full speed, turn the potentiometer (R8) on the calibration card clockwise to increase the reading or counter clockwise to decrease the reading until the desired reading is displayed on the meter (see figure 6).

Selection of status for a particular monitored process is made with the selector switch on the front cover.

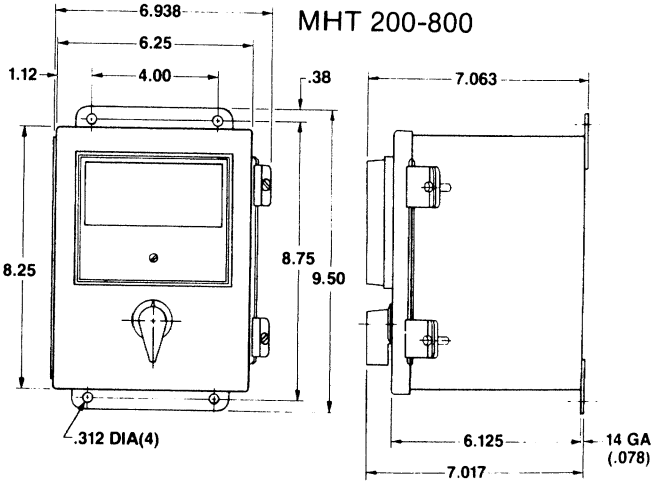
MHT Dimensional Drawings

Dimensions in inches

MHT 210-810



MHT 200-800



Specifications Subject to Change Without Notice

CALL TOLL FREE FOR MORE INFORMATION

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