CDI 5200 AVD

AVERAGING DISPLAY FOR CDI FLOWMETERS - Rev. 3

- **Displays a steady average rather than a fluctuating rate value**
- **Averaging period adjustable to suit the application**
- **Lets small changes in long-term usage stand out from short-term fluctuations**
- **Displays in Nm3/min and Nm3/hr available on request.**

In most industrial applications, compressed-air flow changes constantly as loads turn on and off and as compressors load and unload. Usage is more accurately judged from a steady average than from a fluctuating rate display.

DESCRIPTION

The CDI 5200 AVD display shows a rolling average of air flow taken over a period of time, from one minute to four hours, selected by the user. The period over which the average is calculated is divided into ten equal segments, the oldest of these being discarded each time a new one is completed. Consequently, the period between changes in the display is one tenth of the overall averaging period.

A pushbutton programs the display, and permits the user to temporarily see the current rate value.

PROGRAMMING THE DISPLAY

To set the time period over which the average value is calculated, press the button and, with the button pressed, apply power to the display. When you release the button, an “A” will appear at the left of the display, followed by three digits. Pressing the button repeatedly will cause the displayed number to increase, first in steps of one, then five, and finally 15. When the number passes 240, it will revert to zero. Use the button to set the displayed number to the desired averaging period in minutes. Then wait for 10 seconds, and the averaging period will be recorded in the display’s memory. The display will then resume normal operation. However, the displayed average value will not be meaningful until the display has run for the chosen averaging period.

USING THE DISPLAY

Select an averaging period long enough to smooth out process cycles and variations in flow caused by loading and unloading of compressors. For a rate display, set the averaging period to zero. To display the rate temporarily, press and release the button.

WIRING

Connect the display to the associated meter using three-conductor cable. Connect the *DISP*-, *DISP*+ and *DISP S* terminals on the meter to the corresponding terminals on the display. If using the wall-plug dc power supply furnished with the meter, connect it either at the display or at the meter. Alternatively, power the meter and display with a 24-Volt dc supply connected to the *DISP*- and *DISP*+ terminals, either at the meter or at the display. If power is connected at the display, the interconnecting cable must be 22 gauge or larger and must be no longer than 200 feet. The power supply furnished with the CDI 5200 and 5400 Flowmeters is adequate for one meter and one remote display.

AVAILABLE FORMS

The averaging display is available in three forms:

- As a stand-alone display, model 5200-AVD
- As an option for new CDI flowmeters, designated by a –AVD after the model number, in which the averaging display is substituted for the standard display, and
- As a replacement display for CDI flowmeters, 5200-AVD-R.

LIMITATION

Because of slight delays in the response of the flowmeter, if the flow consists predominantly of pulses shorter than several seconds, the accuracy of the average results will be reduced.

SPECIFICATIONS

Input power: 50 mA at 24 Vdc

Display: Four-digit LED display

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