EXAIR ® *Corporation*

11510 Goldcoast Drive ▪ Cincinnati, OH, USA 45249-1621
(513) 671-3322 ▪ FAX (513) 671-3363 ▪ E-mail: techelp@exair.com

TECHELP DIRECT
1-800-903-9247

SUMMING REMOTE DISPLAY FOR EXAIR DIGITAL FLOWMETERS
INSTALLATION & MAINTENANCE

Summing Remote Display

DC   mA pls   display

Shown with top circuit board
Removed for clarity
(Digital Flowmeter shown - sold separately)
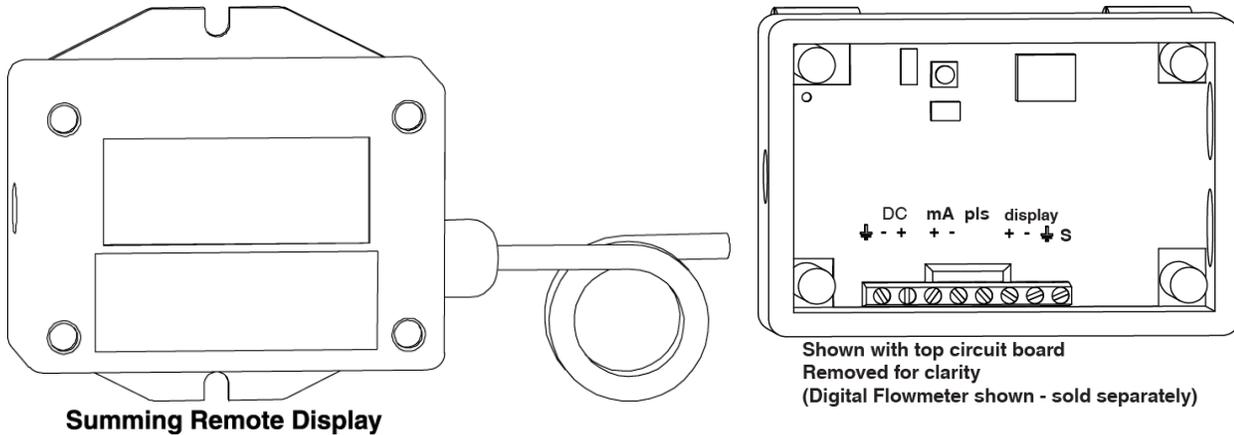
SPECIFICATIONS
Input power: 50 mA at 18 to 24 Vdc
Display: Four-digit LED display

CE

Description
The Summing Remote Display provides a convenient way to monitor daily or cumulative air usage by a machine, process, or department. Alternatively, it can be used as a remote display for a meter in a high or inconspicuous location.

Location
The Summing Remote Display may not be installed in a hazardous location. Use the 50 ft. (15.2m) cable (provided) to connect the Summing Remote Display to the Digital Flowmeter. Use the self tapping screws (provided) to mount the Summing Remote Display to the surface of your choice. Holes should be 2.75" to 2.90" (70 to 74mm) apart.

Installation
The Summing Remote Display comes pre-wired with 50 ft of cable. After mounting the Summing Remote Display and the Digital Flowmeter, run the cable as necessary. If there is cable left over when mounting is complete, the excess cable may be cut off. Leave about 3" (76mm) to be used inside the Digital Flowmeter.

Unplug the Digital Flowmeter and/or the Summing Remote Display. Remove the four screws that hold the cover on the Digital Flowmeter. Gently pop the upper circuit board out of the housing and move it to the side. Remove the plug from one of the ports on the side of the Digital Flowmeter. Install the plastic conduit fitting supplied with the Digital Flowmeter. Push the cable through the conduit fitting and into the meter housing.

Strip away ¾" (19mm) from the outside jacket of the wire, including removal of the aluminum foil shielding. Take the bare wire, and bend it back over the remaining outside sheathing. Tape it in place using electrical tape, leaving no bare wire exposed. Strip 3/16" (5mm) of the insulation away from the red, black and clear wires. Connect the red wire to 'DC+'. Connect the black wire to 'DC-'. Connect the clear wire to 'display S'. On older units, this is 'DSP'. Be sure to maintain any

Installation Con't.

existing electrical connections. Secure wire by tightening the conduit fitting. Put the upper circuit board back in place, and re-assemble the cover to the meter housing.

Powering the Summing Remote Display and Digital Flowmeter

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 with an 18- to 24-Volt dc supply connected to the *supply-* and *supply+* 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 60 feet. The 300 mA power supply furnished with the Digital Flowmeter is adequate to power one meter and one remote display.

Display Modes

In the RATE mode, the unit simply repeats the output (in SCFM) of the connected Digital Flowmeter. Used in this mode, the display provides a convenient way to monitor the flow at a meter (frequently used this way when the Digital Flowmeter is located in a hard to read location.

The DAILY USAGE mode displays the usage in thousands of standard cubic feet during the most recent full 24-hour recording period.

In the CUMULATIVE USAGE mode, the display shows the total air usage in thousands of standard cubic feet. After reaching 9999, it rolls over to 0. It can be used to track monthly air usage and allocate utility costs. The decimal point can be placed to provide better resolution than one thousands of standard cubic feet, but the display will roll over sooner.

Controlling The Display

The display is controlled by a pushbutton that is accessible from outside the enclosure. Pressing the button briefly will cycle the display through its three modes, RATE, DAILY USAGE, and CUMULATIVE USAGE. Ten seconds after the button is last pressed, the display will revert to the selected default mode. To set the starting time for the daily usage display, press and hold the button for two seconds with the meter in the daily usage mode. The daily usage display will indicate " - -" for the first 24 hours. It will subsequently indicate the usage during the last complete 24-hour period. To reset the cumulative display to zero, press and hold the button with the unit in the CUMULATIVE USAGE mode.

Programming The Display

To select the default display mode, press the button while applying power to the display. The display will have a "P" at the left and a digit at the right. A zero indicates RATE mode, a "1" indicates DAILY USAGE mode, and a "2" indicates CUMULATIVE USAGE mode. By pressing the button repeatedly, advance to the desired mode. Wait a few seconds; the meter will then display a decimal point. Press the button repeatedly to move the decimal point to the position desired for the DAILY USAGE and CUMULATIVE USAGE modes. Wait a few seconds for the display to revert to normal operation in the selected mode.

Limitations

Because of slight delays in the response of the Digital Flowmeter, if the flow consists predominantly of pulses shorter than several seconds, the accuracy of the totalized flow will be reduced.

If you have any questions or problems, please contact an EXAIR Application Engineer at:

Toll Free: 1-800-903-9247 (U.S. & Canada)
Telephone: 513 671-3322 outside of U.S. & Canada
Toll Free Fax: 866-329-3924 (U.S. & Canada)
FAX: 513 671-3363 outside of U.S. & Canada
E-mail: techelp@exair.com
Website: www.exair.com