Pressure Sensing Option

for CDI 5100, 5200 & 5400 FLOWMETERS

- **0 – 145 psig (0 – 10 barg) range**
- **Milliamp output for pressure in addition to flow**
- **Low-pressure alarm provided as transistor output**
- **Display can be configured to show pressure or flow**
- **Pressure included in optional wired serial output**

The pressure-sensing (-PSO) option for the CDI 5100, 5200 & 5400 flowmeters allows plant managers to monitor pressure throughout an air distribution system along with flow. For the 5200 & 5400 meters, the pressure sensor is mounted next to the flow-sensing probes. It accesses pipe pressure through a cutout in the gasket that seals the ring to the pipe. For the 5100, the pressure sensor is mounted in the top plate. In either case, there are no additional steps during installation.

The pressure signal is provided as a second milliamp output. With this option, both milliamp outputs are non-isolated; they source current to be returned to the meter's dc- connection. The display can be configured to show the pressure signal, and the pressure signal is also available through the optional wired serial output.

SPECIFICATIONS

Accuracy:
+/- 2 psig maximum
+/- 0.5 psig typical at 68 deg F

Pressure range:
0 to 145 psig operating range
200 psig maximum
145 psig full scale of mA output
For best accuracy, avoid exposure to pressures above 145 psig.

To zero the meter, apply power while holding the button on the main circuit board pressed.

DIFFERENCES FROM THE STANDARD 5100, 5200 & 5400 METERS

Milliamp Outputs:
With the pressure-sensing option, the milliamp outputs are powered from the meter's 24-Volt supply, rather than being electrically isolated from the rest of the meter. They function as the standard meter's output does with the jumper in place.

Pulse or Alarm Output:
The pulse output on the standard 5100, 5200 & 5400 meters is replaced with a transistor output configured as a low-pressure alarm that will turn on when the pressure drops below 50 psig and off when it's above 55 psig. Please contact CDI for other pressures or if you have other output requirements.

Display Configuration:
With the display configured for flow, pressure will appear on the fourth button press. Pressure can be set as the default by setting the default display (dd) to 4. If the display is configured for metric units, pressure will be displayed in barg, with two decimal places shown.

Serial Outputs:
In the optional wired Modbus serial output, pressure is provided in increments of 0.1 psig or 0.01 bara in register 4 (zero based).

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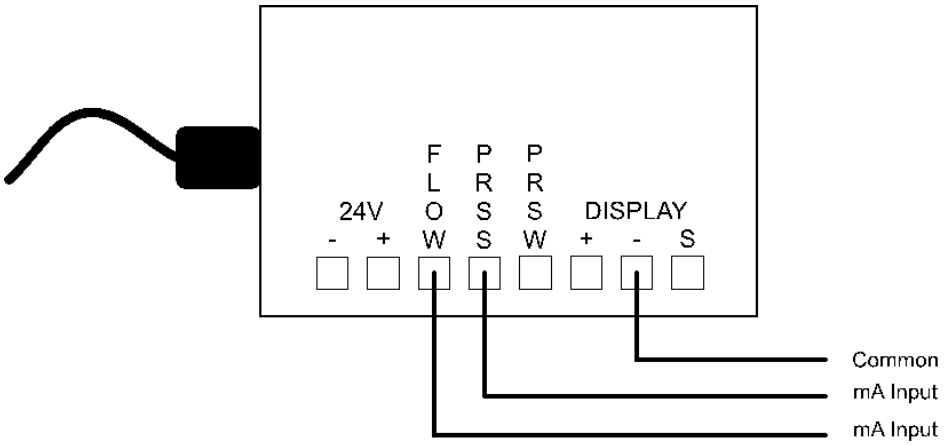
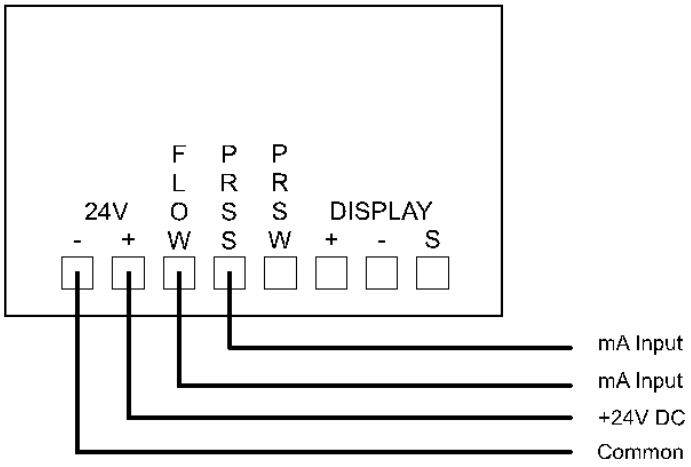
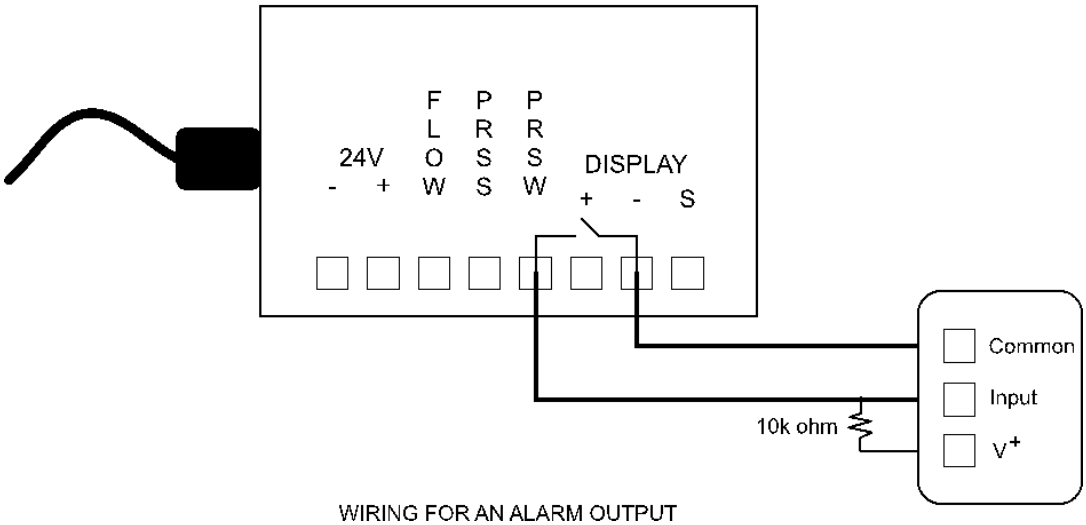


CONNECTING TO A DATA LOGGER
USING METER'S POWER SUPPLY



CONNECTING METER AS A TRANSMITTER



WIRING FOR AN ALARM OUTPUT