



*Proven Performance  
for Over 50 Years*

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# COX 4061 Gas Flow Computer

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## COMPENSATED VOLUME AND MASS FLOW CALCULATION

### FEATURES

- Two line by 20 character super twist back-lit LCD Display
- 16 point linearization
- Displays compensated rate and total flow
- Takes a direct 100 $\Omega$  platinum RTD
- Flow rate, temperature and pressure alarms
- 4-20 mA and pulse output based on compensated flow
- Non-volatile memory
- 24 V excitation provided
- Front panel NEMA 4X/IP 65 rated

### DESCRIPTION

The COX Gas Flow Computer is a microprocessor-based instrument designed to measure compensated flow in an industrial environment. Three analog inputs for temperature, pressure and flow are provided to measure the parameters needed to calculate the actual compensated mass volume AND flow.

Special signal conditioning circuitry is included to allow direct connection of platinum resistance temperature detectors (RTD's). A high speed digital input is provided to interface with pulse output type flowmeters. As an alternative, voltage inputs or current loops can be used for the above.



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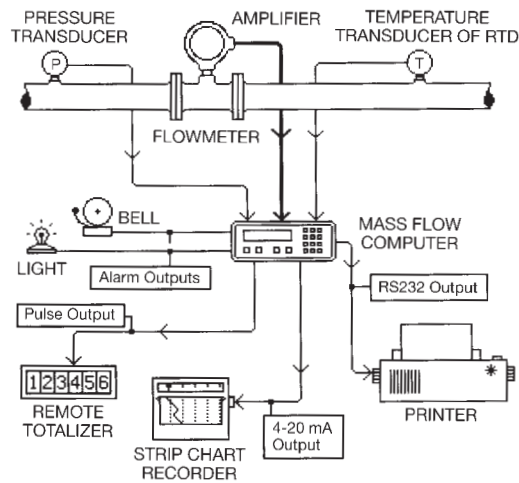
## COMPENSATED VOLUME AND MASS FLOW CALCULATION

| Unit Specifications                              |   |
|--|---|
| Overall Accuracy                                 | 0.25%   |
| Environmental                                    | Operating Temperature: 32° to 122° F (0° to 50° C)  |
| Storage Temperature                              | -10° to 160° F (-23° to 71° C)  |
| Power  | Nominal Line Voltage: 100, 110, 220 or 240 VAC (50/60 Hz)   |
| Power Consumption                                | 10 Watts max  |
| Analog Inputs                                    | Range: 0-20mA, 4-20mA   |
| Voltage Inputs                                   | Range: 0-5V, 0-10V  |
| Temperature Inputs                               | Compatible RTD type: 100Ω Platinum<br>Lead Wire Compensation: 4 Wire<br>Configuration: 2, 3 or 4 Wire   |
| Digital Flow Inputs                              | Range: 3-30 VDC, sink only.<br>Max Input Frequency: 40kHz max<br>Min pulse width: 10µsec (with 40kHz filter)<br>Thresholds: OFF is less than 2.0V;<br>ON is greater than 2.5V<br>Load Type: Non Inductive<br>Update Rate: 1Hz |
| Relay Outputs                                    | Type: Dry Contact, Form C<br>Contact Rating: 10A @ 115/230VAC/28VDC   |
| Auxiliary Power Outputs                          | (AC powered units only)<br>Voltage: 24VDC regulated and filtered<br>Isolation: 230VAC max<br>Current: 0 to 100mA<br>Protection: Short Circuit Proof   |
| Digital Flow Pulse Output                        | This output intended to drive a counter with a minimum input impedance of 1,000Ω. It is compatible with TTL and 5VCMOS logic inputs. It is slow rate limited to help prevent RFI.   |
| Analog Output                                    | 4-20 mA, 3-24 VDC<br>ACC: ± .5% F. S. update = 1Hz  |
| Output High Voltage:                             | No Load: 4.5 Volts min<br>4.0 mA Source: 4.0 Volts min  |
| Output Low Voltage:                              | No Load: 0.2 Volts max<br>4.0 mA Sink: 1.0 Volts max  |
| Output Waveform:                                 | Symmetric square wave above 1 Hz and 100msec pulse below 1Hz  |
| Frequency Range:                                 | 0 to 50kHz  |
| Max Slew Rate:                                   | 27 Volts/µsec   |
| Sustained Fault Voltage for no permanent damage: | 7 Volts   |

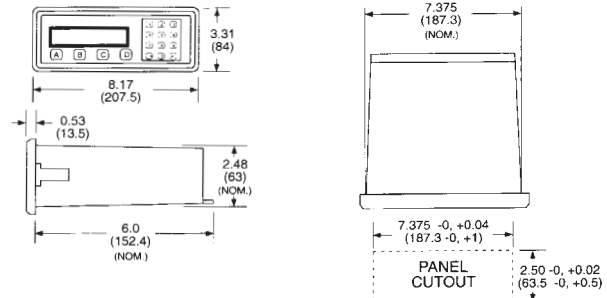
## FLOW COMPUTER APPLICATION

- Pressure transducer sends 0-5 V signal to Flow Computer.
- 100Ω RTD direct hook-up to Flow Computer.
- Turbine flowmeter sends digital signal to Flow Computer.
- Flow Computer calculates flow and generates output signals.
- 5 V pulse out to remote totalizer in supervisory area.
- 4-20 mA out to strip chart recorder tracks trends.
- Alarm relays activate bell and/or light as needed.

## 4061 APPLICATION



## DIMENSIONS



For more information,  
contact COX Instruments or  
your local COX Instruments  
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