



Proven Performance
for Over 50 Years

Cox Model 1051 Rate Totalizer

RATE DISPLAY INDICATION:

LED labeled R on right illuminates when meter is displaying rate or process input.

LOW-FLOW CUTOFF:

Any input below the low-flow cutoff value will result in a display of zero. May be set from 1 count to 100% F.S., user selectable. To disable low-flow cutoff, program cutoff value to zero. Totalizer is based on rate display. So, inputs below the low-flow cutoff value will not affect the totalizer.

ALTERNATING DISPLAY:

Display may be programmed to alternate between rate and total every 10 seconds.

TOTAL DISPLAY:

0 to 999,999

TOTAL DECIMAL POINT:

May be set in any of the following positions: 9.99999, 99.9999, 999.999, 9999.99, or 99999.9 Total decimal point is independent of process/rate decimal point.

TOTALIZER:

Calculates total based on rate and field programmable multiplier to display total in engineering units. Time base available in seconds, minutes, hours, or days. Time base must be selected according to time units in which rate is displayed.

TOTALIZER ROLLOVER:

Totalizer rolls over when display exceeds 999,999. Relay status reflects display.

TOTALIZER PRESETS:

Up to four, user selectable under Setup menu. Any set point can be assigned to total and may be programmed anywhere in the range of the meter.

PRESET OFFSET:

Relays assigned to total can be programmed to trip at any point below the next relay's preset value.

PROGRAMMABLE DELAY ON RELEASE:

If the meter is programmed to reset total to zero automatically when the highest preset is reached, then a delay will occur before the total relays reset. This delay can be programmed anywhere between 1 and 999 seconds.

TOTAL RESET:

Via front panel **ENTER** button, external contact closure, or automatically via user selectable preset value.

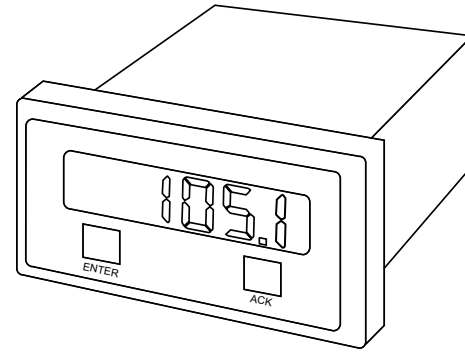
TOTAL RESET LOCKOUT:

Meter may be programmed so total cannot be reset from the front panel.

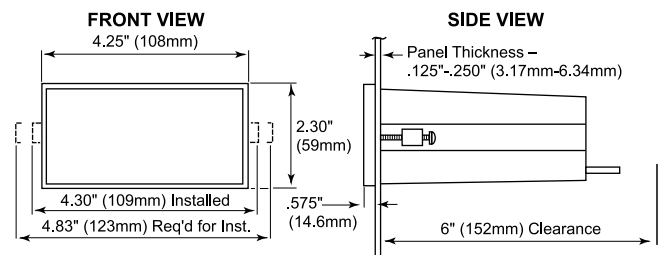


Specifications

INPUTS:	Field selectable: Pulse or square wave 0-5 V or 0-12 V @ 30 kHz; TTL; open collector 4.7 kΩ pull-up to 12V @ 30 kHz; switch contact 4.7 kΩ pull-up to 12 V @ 40 Hz.
CALIBRATION:	May be calibrated using K-factor scaling, internal calibration or by applying an external calibration signal. Field programmable K-factor converts input pulses to rate in engineering units. May be programmed from 0.0001 to 999,999 pulses/unit.
INPUT IMPEDANCE:	Pulse input: Greater than 300 kΩ @ 1 kHz. Open collector/switch input: 4.7 kΩ pull-up to 12 V.
EXCITATION: (AC units only)	Field selectable, isolated 12 VDC @ 50 mA for sensor supply or 24 VDC @ 20 mA regulated ±5%. Maximum loop resistance of 1200Ω .
ACCURACY:	±0.1% of full scale
FILTER:	Programmable contact debounce filter.
GATE:	Low gate: 1-98 seconds High gate: 2-99.9 seconds
LOCKOUT:	Jumper JP2 restricts modification of calibration values.
DISPLAY:	Six digit, 0.56" (14.2 mm) red or green LED Rate: -19,999(0) to 29,000(0) with selectable extra zero. Total: 0 to 999,999
DECIMAL POINT:	Process/rate: 2.9999, 29.999, 299.99, 2999.9 or extra zero may be turned on 299990. Total: 9.99999, 99.9999, 999.999, 9999.99, 99999.9. Rate and total decimal points are independent of each other.
PEAK HOLD (DISPLAY PEAK)	Captures the peak process/rate and displays it via the front panel ENTER button (dSPY P)
PEAK HOLD INDICATION:	Front panel flashing R LED
NON-VOLATILE MEMORY:	All programming values are stored in non-volatile memory for a minimum of ten years if power is lost.
POWER:	AC power, 115 or 230 VAC ±10%, 50/60 Hz, 12 VA
ISOLATION:	AC powered 1500 VAC; DC powered 500 VDC
NORMAL MODE REJECTION:	64 dB at 50/60 Hz
ENCLOSURE:	1/8 DIN, high impact plastic, UL 94V-0, color: black
FRONT PANEL:	Type 4X, NEMA 4X, Panel gasket provided
CONNECTIONS:	Removable screw terminal blocks
ALARM POINTS:	Four, any combination of high or low alarms
ALARM POINT DEADBAND:	0-100% of full scale, user selectable
ALARM STATUS INDICATION:	Front panel LED
UL FILE NUMBER:	E160849; 508 Industrial Control Equipment



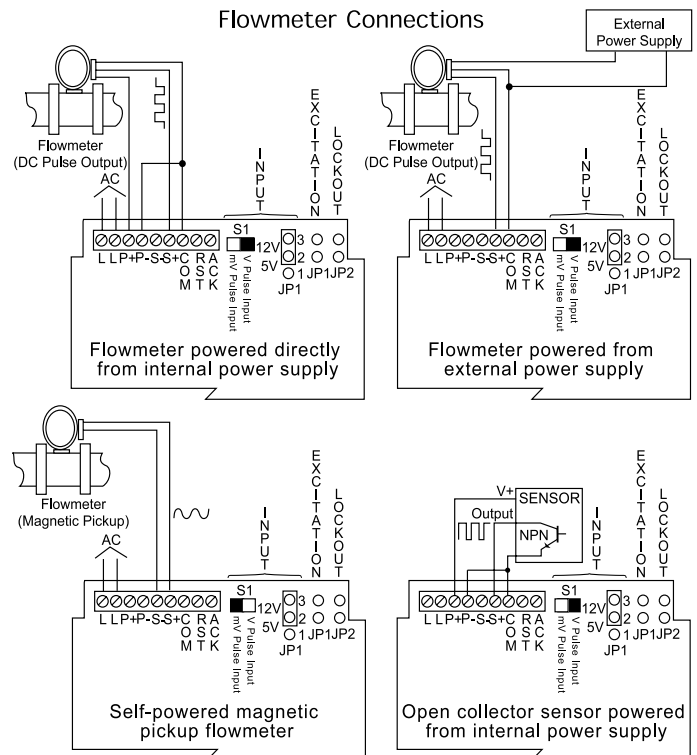
MOUNTING DIMENSIONS:



NOTES:

1. Panel cutout required: 1.772" x 3.622" (45 mm x 92mm) 1/8 DIN
2. Panel thickness: 0.125" - 0.250" (3.17 mm - 6.34 mm)
3. Clearance: allow 6" (152 mm) behind the panel
4. Weight: See data sheets

Flowmeter Connections



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