

SIGMA MODEL SDM 693 FLOW METER/CONTROLLER



STANDARD FEATURES

- NEMA 4 FRONT PANEL
- PULSE, OPEN COLLECTOR, SWITCH CLOSURE, TTL OR SQUARE WAVE FIELD SELECTABLE INPUTS
- K-FACTOR, INTERNAL, OR EXTERNAL CALIBRATION
- 11 POINT CALIBRATION FOR NON-LINEAR INPUTS
- LOW FLOW CUTOFF
- 12 VDC @ 50 MA OR 24 VDC @ 20 MA FIELD SELECTABLE POWER SUPPLY
- 2 OR 4 RELAY OUTPUT OPTIONS
- TACHOMETER/RATE METER
- 4-20 MA OUTPUT OPTION - CONVERTS THE PULSE INPUT INTO AN ISOLATED 4-20 MA OUTPUT

DESCRIPTION

The SDM 693 is a high performance, industrial-grade digital flow meter. It accepts all the standard process signals: pulse, open collector, switch, TTL or square wave displaying them in engineering units on a six digit display. The display also includes an extra zero which may be used to handle numbers up to 999,999.

Single Button Scaling allows calibration to be performed via a single front panel push-button. There are no complicated menu trees to navigate or button-pushing sequences to memorize.

An internal 12 or 24 VDC power supply is available to power the flow sensor.

The NEMA 4 rated front panel makes the 693 ideal for location in wet and dry areas.

Options for the 693 include 2 and 4 relays: 4-20 MA output, or 2 and 4 relays with 4-20 MA output.

2 or 4 Relays

Relays #1 and #2 are assigned to total and trip when total exceeds preset values and reset when total is reset to zero. #2 relay is user programmable to reset total to zero when the preset value is reached.

Relays #3 and #4 are assigned to rate and may be programmed for high or low alarms with 0-100% deadband. Relay configurations consist of two for total only, two for rate only, or two for total and two for rate (see ordering information).

- 2 or 4 SPDT, 2 Amps @ 250 VAC Resistive Load
- Automatic or Automatic + Manual Reset
- Failsafe Operation & Auto Initialization
- 0-100% Deadband Adjustment, relays #3 and #4.

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SPECIFICATIONS

FREQUENCY INPUTS:

Field selectable: Pulse or Square Wave 0-5 V or 0-12 V @ 30 KHZ; TTL; Open Collector 4.7 Kohm pullup to 12 V @ 30 KHZ; Switch Contact 4.7 Kohm pullup to 12 V @ 40 HZ.

LOW VOLTAGE/MAG PICKUP (isolated):

Sensitivity: 125 MV p-p;
Hysteresis: 30 MV

CALIBRATION:

May be calibrated using K-factor scaling, internal calibration or by applying an external calibration signal.

OUTPUT POWER:

(AC powered units only) Field selectable, isolated, 12 VDC @ 50 MA for sensor supply, or 24 VDC @ 20 MA regulated $\pm 5\%$, noise less than 10 mVpp. Max. loop resistance of 1200 ohm.

DISPLAY:

6 digit, 0.56" (14.2mm) high efficiency red or green LED. Rate: 0 to 29,999(0) with selectable extra zero. Total: 0 to 999,999. Automatic lead zero blanking.

ALTERNATING DISPLAY:

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

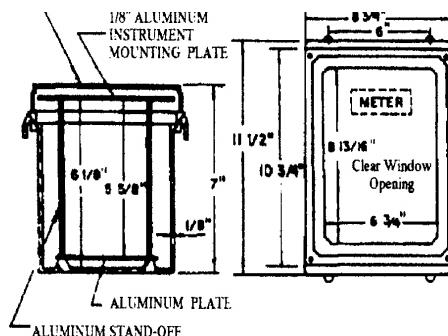
ACCURACY:

$\pm 0.1\%$ full scale

Min. Input Span: 2.0 Hz between points.

- Alternating Rate/Total Display
- Priority Batch Programming
- Preset Value Tracking
- Automatic, External or Menu Totalizer Reset
- Rate Displayed in Engineering Units per Second, Minute, or Hour
- Total Displayed in any Engineering Unit
- Peak Hold Feature
- Green Display Available
- Optional 4/20MA Output for Rate

ENCLOSURE



NEMA 4X ENCLOSURE OPTION

OPTION NO.	DESCRIPTION
N4	25% Fiberglas Reinforced Grey Polyester Corrosion Resistant UL Ratings Molded Instrument Window Hinged Aluminum Instrument Mounting Panel Terminal Strips Complete Mounting of Meter/Controller