

+ NUFLO Flo-III

Flow Totalizer, Rate Meter and Batch Controller

Senisa's NUFLO™ Flo-III™ is a multifunctional flow totalizer, rate meter and bath controller with optional power choices and input/output options including a RS-232 communications port.

The Flo-III instrument's menu-driven configuration software offers a variety of outputs including:

- + Uncompensated rate (analog or digital output)
- + Corrected rate (analog output)
- + Mass rate (analog output)
- + Temperature (analog output)
- + Density (analog output)
- + Uncompensated volume total (analog output)
- + Corrected volume total (analog or digital output)
- + Mass total (analog or digital output)

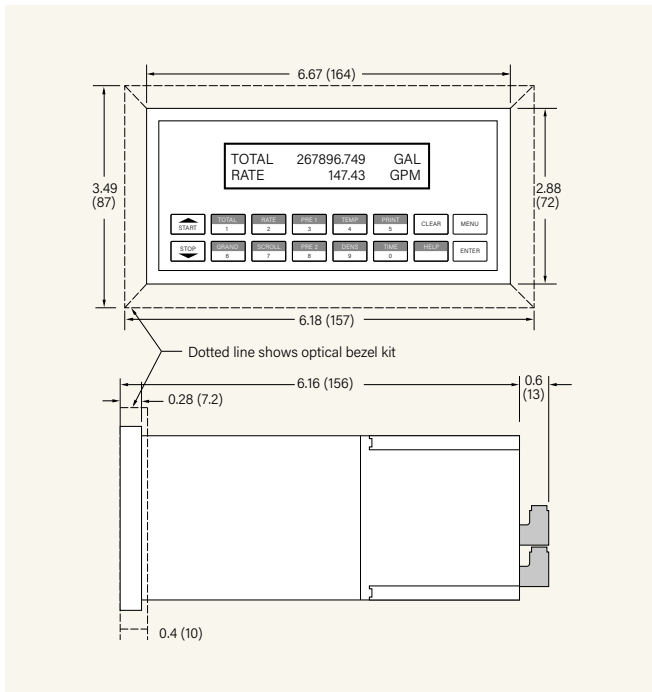
Instrument programming includes a number of different flow equations, making the Flo-III computer the right choice for almost any liquid flow measuring and monitoring application.

With its RS-232 serial port, the computer can provide output for data logging, for transaction printing or for remote meter reading via a modem. Alarm functions are also included.

The Flo-III computer can also provide alarms using its relay outputs. Menu-assignable alarm outputs include: low-rate, high-rate, pre-warn, pre-set, low-temperature, high-temperature or security warnings with an easy-to-read display.

Users have single-key direct access to measurement readouts and display scrolling. The backlit LCD display provides two 20-character lines with a nominal character height of 0.3". Units of measure and descriptors are user programmable.





Specifications (Environmental)	<ul style="list-style-type: none"> + Operating Temperature: 32° F to 122° F (0° C to 50° C) + Storage Temperature: -40° F to 185° F (-40° C to 85° C) + Humidity: 0 to 95% non-condensing + Materials: UL approved
Approvals	CE Approved, UL/CSA Pending
Display	<ul style="list-style-type: none"> + Type: Two lines of 20 characters + Backlit LCD + Character Size: 0.3" nominal + User-programmable label descriptors and units of measure
Keypad	<ul style="list-style-type: none"> + Membrane keypad + 16 keys
Enclosure	<ul style="list-style-type: none"> + Depth behind panel: 6.5" including mating connector + Type: DIN + Materials: Plastic, UL94V-0, flame retardant + Bezel: Textured matte finish
Real Time Clock	<p>The Flo-III is equipped with a battery-backed real time clock with display of time and date.</p> <ul style="list-style-type: none"> + Time: 12 or 24-hour + Date: day, month, year
Flow Inputs Analog Input	<ul style="list-style-type: none"> + Accuracy: 0.01% FS at 68° F (20° C) + Ranges + Voltage: 0 to 10 VDC, 0 to 5 VDC 1 to 5 VDC + Current: 4 to 20 mA, 0 to 20 mA + Basic measurement resolution: 16 bit + Update rate: 4 updates/sec + Automatic fault detection: signal over/under-range, current loop broken

	<ul style="list-style-type: none"> + Calibration: software calibration (no trimmers) and auto-zero continuously + Extended Calibration: sets zero and full scale of each range using special test mode + Fault Protection <ul style="list-style-type: none"> Reverse polarity: no ill effects Over-voltage Limit: 50 VDC over voltage protection Over-current Protection: internally current limited protected to 24 VDC
Pulse Inputs	<ul style="list-style-type: none"> + Number of flow inputs: one + Input impedance: 10K ohm nominal + Pull Up Resistance: 10K ohm to 5 VDC (menu selectable) + Pull Down Resistance: 10K ohm to common + Trigger level: (menu selectable) + High level input <ul style="list-style-type: none"> Logic On: 3 to 30 VDC Logic Off: 0 to 1 VDC + Low level input (mag pickup) <ul style="list-style-type: none"> Sensitivity: 10 mV or 100 mV + Logic on: 3 to 30 VDC logic off: 0 to 1 VDC + Minimum count speed: user selectable + Maximum count speed: selectable 40Hz, 3000Hz or 20 kHz + Overvoltage Protection: 50 VDC
Power Input	<p>The factory equipped power option is internally fused. An internal line to line filter capacitor and MOV are provided for added transient suppression.</p> <ul style="list-style-type: none"> + 110 VAC: 50/60 Hz + 220 VAC: 50/60 Hz + DC Power: 12/24 VDC + Power Consumption: <ul style="list-style-type: none"> AC: 11.0 VA (11W) DC: 300 mA max. + Power: 300 mA max.
Control Inputs:	<p>Switch inputs are menu selectable for: start, stop, reset, lock, inhibit, alarm acknowledge, print or not used.</p> <ul style="list-style-type: none"> + Control input specifications + Input scan rate: 10 scans/second + Logic 1: 4 to 30 VDC + Logic 0: 0 to 0.8 VDC input + Impedance: 100K ohm + Control activation: <ul style="list-style-type: none"> Positive Edge or pos. level based on product definition for switch usage
Relay Outputs	<p>Relay outputs are menu assignable to low-rate alarm, hi-rate alarm, pre-warn alarm, pre-set alarm, pulse output or general purpose warning.</p> <ul style="list-style-type: none"> + Number of relays: two (four optional) + Contact style: form C contacts + Contact ratings: five amp, 240 VAC or 30 VDC
Isolated Analog Output	<p>Analog output is menu assignable to correspond to the uncompensated rate, corrected rate, mass rate, temperature, density, uncompensated volume total, corrected volume total or mass total.</p>
Isolated Pulse Output	<p>Isolated pulse output is menu assignable to uncompensated volume total, corrected volume total or mass total.</p>