SUPERtrol-I LE

Economical Flow Totalizer, Ratemeter and Batcher

Features

- EZ Setup Feature
- Setup Diskette
- Advanced Batching Features
- Menu Selectable Hardware Features
- Two Line LCD or VFD Display
- NEW! 0-20mA or 4-20mA Analog Output
- NEW! Attractive Wall Mount Enclosure
- Isolated Pulse Output Standard
- RS-232 Port Standard, RS-485 Optional
- Advanced Printing Cababilities
- Data Logging & Modem Remote Metering Support
- DIN Enclosure with Two Piece Connectors
- DDE Server & HMI Software Available

Description:

The SUPERtrol-I LE Flow Computer satisfies the instrument requirements for a variety of pulse producing flowmeter types in liquid applications.

The alphanumeric display shows measured and calculated parameters in easy to understand format. Single key direct access to measurements and display scrolling is supported. An EZ Setup feature rapidly guides the user through the basic setup.

The SUPERtrol-I LE can be programmed for rate/total indication or batching. The various pulse inputs and outputs can be "soft" assigned to meet a variety of common application needs. The user "soft selects" the usage of each feature while configuring the instrument. A 0-20mA or 4-20mA analog output is standard.

The user can assign the standard RS-232 Serial Port for data logging, transaction printing, or for connection to a modem for remote meter reading. An optional RS-485 serial port using Modbus RTU protocol is available.

A Service or Test mode is provided to assist the user during start-up system check out by monitoring inputs and exercising outputs. The system setup can also be printed.

Specifications:

Environmental

Operating Temperature: 0°C to +50°C Storage Temperature: -40°C to +85 C Humidity: 0-95% Non-condensing
Materials: U.L. approved
sting: UL/C-UL Listed (File No. E192404), CE Compliant

Listing:

Display

Type: 2 lines of 20 characters
Types: Backlit LCD and VFD ordering options

Character Size: 0.3" nominal

User programmable label descriptors and units of measure



Keypad

Keypad Type: Membrane Keypad Keypad Rating: Sealed to Nema 4 Number of keys: 16

Enclosure

Size: See Dimensions

Depth behind panel: 6.5" including mating connector

Materials: Plastic, UL94V-0, Flame retardant Bezel: Textured per matt finish

Power Input

The factory equipped power option is internally fused. An internal line to line filter capacitor and MOV are provided for added transient suppression.

110 VAC Power Option: 85 to 127 Vrms, 50/60 Hz 220 VAC Power Option: 170 to 276 Vrms, 50/60 Hz

DC Power Option:

12 VDC (10 to 14 VDC) 24 VDC (14 to 28 VDC)

Flow Inputs:

Pulse Inputs:

Number of Flow Inputs: one (single or quadrature)

Input Impedance: 10 K Ω nominal Pullup Resistance: 10 K Ω to 5 VDC (menu selectable)

Pull Down Resistance: 10 KΩ to common

Trigger Level: (menu selectable)
High Level Input

3 to 30 VDC Logic On: Logic Off: 0 to 1 VDC Low Level Input (mag pickup) Sensitivity: 10 mV or 100 mV

Minimum Count Speed:

User selectable (as low as 1 pulse/99 seconds)

Maximum Count Speed:

Selectable: 40 Hz, 3000 Hz or 20kHz
Overvoltage Protection: 50 VDC
Linearization: Average K or 16 Point linearization with separate forward and reverse tables

Control Inputs

Number of Inputs: 3

Switch Inputs are menu selectable for Start, Stop, Reset, Lock,

Inhibit, Alarm Acknowledge, Print or Not Used.

Control Input Specifications

Input Scan Rate: 10 scans per second Logic 1: 4 - 30 VDC Logic 0: 0 - 0.8 VDC Input Impedance: 100 K Ω

Control Activation:

Positive Edge or Pos. Level based on product definition for switch usage.

Excitation Voltage

Menu Selectable: 5, 12 or 24 VDC @ 100 mA (fault protected)

Data Logging

The data logger captures print list information to internal storage for aproximately 1000 transactions. This information can be used for later uploading or printing. Storage format is selectable for Comma-Carriage Return or Printer formats.



Serial Communication

The serial port can be used for printing, datalogging, modem connection and communication with a computer.

Device ID: 01-99

Baud Rates: 300, 600, 1200, 2400, 4800, 9600, 19200

Parity: None, Odd, Even

Handshaking: None, Software, Hardware

Print Setup: Configurable print list and formatting.

Print Out: Custom form length, print headers, print list. Print Initialization: Print on end of batch, key depression, interval, time of day or remote request.

RS-485:

Device ID: 01-255

Baud Rates: 300, 600, 1200, 2400, 4800, 9600, 19200

Parity: None, Odd, Even Protocol: Modbus RTU (Half Duplex)

Batching Features

Single or dual stage batching, slow fill, auto-batch restart and batch overrun compensation.

Relay Outputs

The relay outputs are menu assignable to (Individually for each relay) Low Rate Alarm, Hi Rate Alarm, Prewarn Alarm, Preset Alarm or General purpose warning (security).

Number of relays: 2 (4 optional) Contact Style: Form C contacts

Contact Ratings: 5 amp, 240 VAC or 30 VDC

Isolated Pulse output

The isolated pulse output is assigned to Uncompensated Volume Total.

Pulse Output Form: Open Collector Maximum On Current: 25 mA Maximum Off Voltage: 30 VDC Saturation Voltage: 1.0 VDC

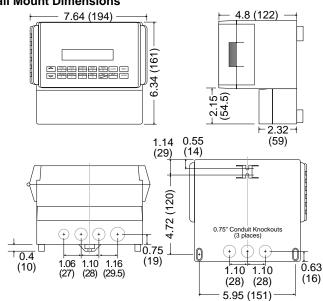
Maximum Off Current: 0.1 mA

Pulse Duration:10 mSec or 100mSec (user selectable)

Pulse output buffer: 256 Fault Protection

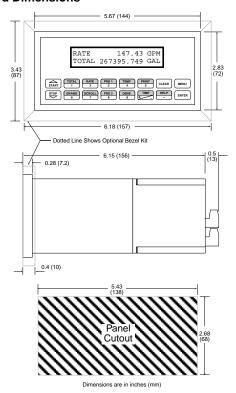
Reverse polarity: Shunt Diode

Wall Mount Dimensions



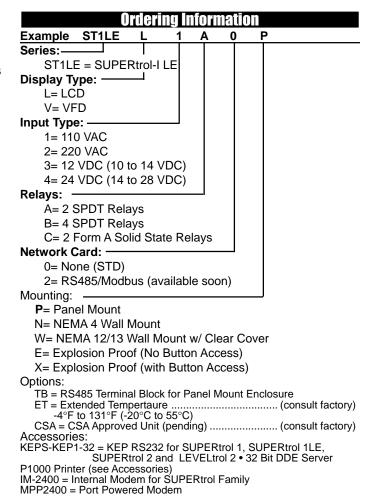
Standard Dimensions

50 • Flow Instruments



Terminal Designations

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DC OUTPUT	PULSE IN 1	PULSE IN 2	COMMON	DO NOT USE	DO NOT USE	DO NOT USE	DO NOT USE	CNTR IN 1	CNTR IN 2	CNTR IN 3	COMMON	PULSE OUTPUT	PULSE OUTPUT	DO NOT USE	DO NOT USE	NC	COM RLY1	NO	NC	COM RLY2	NO	AC LINE	AC LINE
_	2	3	4	2	9	7	8	6	10	1	12	13	14	15	16	17	18	19	20	21	22	23	24



MPP2400N = Port Powered Modem in NEMA4 enclosure