# SUP:Bitroflle 

Economical Flow Totalizer, Ratemeter and Batcher

## Features

- EZ Setup Feature Speeds Instrument Setup
- Setup Diskette
- Advanced Batching Features, Including Quick
Batching Sequence

- Menu Selectable Hardware Features
- Two Line LCD or VFD Display


## - NEW! - 0-20mA or 4-20mA Analog Output <br> - NEW! - Attractive Wall Mount Enclosure <br> - Isolated Pulse Output Standard <br> - RS-232 Port Standard, RS-485 Optional <br> - Advanced Printing Capabilities <br> - 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 $0-20 \mathrm{~mA}$ or $4-20 \mathrm{~mA}$ 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: $0^{\circ} \mathrm{C}$ to $+50^{\circ} \mathrm{C}$
Storage Temperature: $-40^{\circ} \mathrm{C}$ to +85 C
Humidity : 0-95\% Non-condensing
Materials: U.L. approved
Listing: UL/C-UL Listed (File No. E192404), CE Compliant
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
Kessler-Ellis Products

## Serial Communication

The serial port can be used for printing, datalogging, modem connection and communication with a computer.
RS-232:
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: (optional 2nd COM port)
Device ID: 01-247
Baud Rates: 1200, 2400, 4800, 9600, 19200
Parity: None, Odd, Even
Protocol: Modbus RTU (Half Duplex)

## 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: $5 \mathrm{amp}, 240$ VAC or 30 VDC
Isolated Pulse output
The isolated pulse output is assigned to Uncompensated Volume Total.
Pulse Output Form: Photomos Relay
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 100 mSec (user selectable)
Pulse output buffer: 256
Fault Protection
Reverse polarity: Shunt Diode

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| :---: | :---: |
| Example ST1LE L 1 A 0 P | ET |
| Series: |  |
| ST1LE = SUPERtrol-I LE |  |
| Display Type: |  |
| L= LCD |  |
| $V=\mathrm{VFD}$ |  |
| Input Type: |  |
| $1=110$ VAC |  |
| $2=220 \mathrm{VAC}$ |  |
| $3=12 \mathrm{VDC}$ (10 to 14 VDC$)$ |  |
| $4=24 \mathrm{VDC}$ ( 14 to 28 VDC ) |  |
| Relays: |  |
| A $=2$ SPDT Relays |  |
| B= 4 SPDT Relays |  |
| Network Card: |  |
| $0=$ None (STD) |  |
| 2= RS485/Modbus (optional 2nd COM port) |  |
| Mounting: - |  |

P= Panel Mount $\qquad$
N = NEMA 4 Wall Mount
(see NEMAtroIST4X)
W= NEMA 12/13 Wall Mount w/ Clear Cover ....... (see Fig.2)
E= Explosion Proof (No Button Access) ....... (see XHVD 7/4)
X= Explosion Proof (with Button Access) ... (see XTROL 7/4)
Options:
TB = RS485 Terminal Block for Panel Mount Enclosure
ET $=$ Extended Temperature $\qquad$ (consult factory) $-4^{\circ} \mathrm{F}$ to $131^{\circ} \mathrm{F}\left(-20^{\circ} \mathrm{C}\right.$ to $\left.55^{\circ} \mathrm{C}\right)$
IM = Internal Modem
M = Modem Power Option

## Accessories:

KEPS-KEP1-32 = KEP RS232 for SUPERtrol 1, SUPERtrol 1LE, SUPERtrol 2 and LEVELtrol $2 \cdot 32$ Bit DDE Server
Modem Available, see MPP-2400 and MPP-2400N (requires M option)
Serial printer available, see P1000, P295
Ethernet Port Server available, see IEPS
RS-422/485 to RS-232 Communication Adaptor available, see CA285
Remote metering and data collection software available, see TROLlink

