

# Simark Controls Ltd.

## Rate Totalizer

### Model SRT-IS-101

#### Features

- Magnetic Pickup Input, Contact Closure Input, DC Pulse Input (Optically Isolated)
- Displays Rate & Total Simultaneously
- 4 1/2 Digit Rate Display, 8 Digit Totalizer Display
- Powered from Internal Battery or DC Supply
- UL/C-UL Intrinsically Safe Listed
- 10 Pt. Linearization



#### Description

Featuring 4 1/2 digits of rate and 8 digits of total, the SRT-IS-101 is a battery powered indicator capable of accepting magnetic pickup, DC pulse and switch closure inputs from pulse producing flowmeters.

#### Specifications

##### Power:

BATTERY POWERED

Supplied with 1 C size Lithium battery.

**Battery Life Expectancy** (dependant on run time as follows)

Idle: 5yrs, 2hrs/day: 4.5yrs, 8hrs/day: 3.5yrs, 24hrs/day: 2.1yrs

When externally powered: 10yrs (battery serves as backup)

##### EXTERNAL POWER INPUT

Voltage: 8.5 to 30 VDC

Current: Less than 5 mA

Supplied with 1 C size lithium battery for standby operation

Protection: Reverse Polarity Protection on DC Power Input

##### Display:

Rate Display: (selectable decimal)

4.5 Digits (19999), 0.35" High, Display updates once every two seconds

Rate Descriptors: /MIN, /HR, /DAY

Min. Input Frequency: .125 Hz to 10 Hz (selectable delay of 0.1 to 8.0 seconds)

Totalizer Display: (selectable decimal)

8 Digits (99999999), 0.2" High

Totalizer Descriptors: GAL, BBL, MCF, M3, "blank"

Warning Displays: Low battery warning "BAT"

##### Pulse Output:

The pulse output advances with the least significant digit of the totalizer or decimal multiples there of (see Pulse output divider).

Type: Isolated photomos relay

Max. voltage (off state): 30 VDC

Current (on state): 100mA

Pulse Duration: Selectable (see below)

Pulse Output Rate: Selectable (see below)

SPEED (HZ)	1	2	4	8
Min. on/off (msec)	500	250	125	62.5

Pulse output divider: User selectable, ÷1, ÷10, ÷100 or OFF

NOTE: Select OFF for max. battery life.

#### Mounting Style:

NEMA4X keypad mounted outside opaque cover, with 1" union connection for turbine.

#### Environmental:

OPERATING TEMPERATURE

-22°F (-30°C) to + 158°F (70°C)

HUMIDITY

0 - 90% Noncondensing

#### Accuracy:

0.01% Reading, ±1 count

Temperature Drift:

50 ppm/°C Worst Case

#### Inputs:

MAGNETIC PICKUP INPUT

Frequency Range: 0 to 3500 Hz

Trigger Sensitivity: 30 mV p-p

Over Voltage Protected: ± 30 VDC

OPTO-ISOLATED DC PULSE INPUT

High (logic 1): 4-30 VDC

Low (logic 0): Less Than 1 VDC

Minimum Current: .5 mA

Hysteresis: 0.4 VDC

Frequency Range: 0 to 5 kHz

Min. Pulse Width: 0.1 msec

CONTACT CLOSURE INPUT (contact closure to common)

Internal Pullup Resistor: 100 KΩ to +3.6 VDC

High (logic 1): Open or 4-30 VDC

Low (logic 0): Less Than .5 VDC

Internal Switch Debounce Filter: 0 to 40 Hz

RESET INPUT (contact closure to common)

Internal Pullup Resistor: 100 KΩ to +3.6 VDC

High (logic 1): Open or 4-30 VDC

Low (logic 0): Less Than .5 VDC

Minimum On : 25 msec

#### K-FACTOR

Range: 0.001 to 59999 (divider)

Decimal Point Locations: XX.XXX to XXXXX

#### 10 Point Linearization

This feature allows the user to enter 10 different frequencies with 10 different corresponding K-Factors to linearize non-linear signals.

#### Safety Listing:

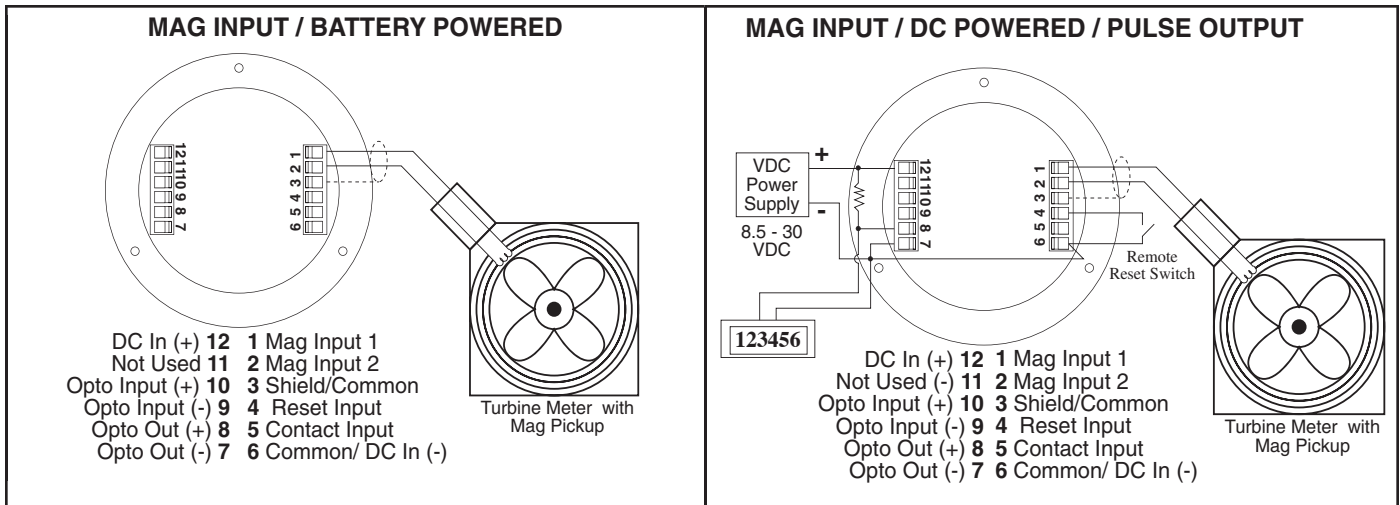
UL/C-UL Intrinsically Safe Listed

CL1, GR. A, B, C, D Hazardous Locations

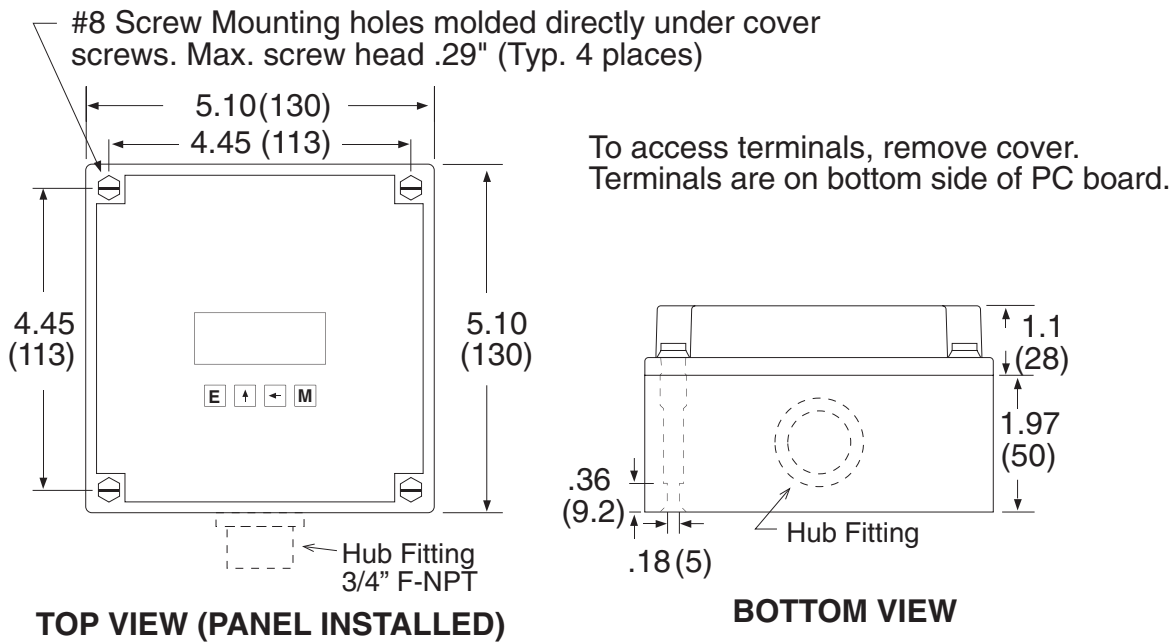
TC3



**Typical Wiring:**



**Dimensions:**



**Ordering Information**

Part Number	Description
SRT-IS-101	Rate and Total indicator with 10 point linearization, NEMA4X enclosure with hub fitting, intrinsically safe



**SIMARK  
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