

# SQUIRT

## Loop Powered Indicator

### Features

- Linear or Square Root Extraction of Input
- 3 <sup>1/2</sup> or 4 <sup>1/2</sup> Digit Rate Display (Selectable)
- 8 Digit Totalizer Display
- Calibration, High and Low Values Fully Programmable Through Keypad
- No Dipswitches or Pots to Adjust
- 16 Bit A/D Resolution
- Isolated Scaled Pulse Output
- Password Protection of Menu and Totalizer

### Description:

Featuring up to 4<sup>1/2</sup> digits of rate and 8 digits of total, the Squirt is a loop powered indicator capable of accepting either linear or square root 4-20 mA inputs. An isolated scaled pulse output is available for hook up to a remote totalizer. Numeric password protection prevents unauthorized access to menu. The easy-to-read menu prompts make the Squirt so easy to program that you will feel comfortable programming it without the use of a manual.

### Specifications:

#### Power:

Loop powered 4-20 mA

Internal Battery (Setup & totalizer memory storage only):

3 V 250 mA-H Lithium (2 yr. Standby life)

#### Display:

Rate Display: (selectable decimal)

3.5 or 4.5 Digits (selectable), 0.35" High, Display updates once every two seconds.

Rate Descriptors: /SEC, /MIN, /HR or "blank"

Totalizer Display: (selectable decimal)

8 Digits (99999999), 0.2" High

Totalizer Descriptors: GAL, LIT, FT3, M3, "blank"

Low Battery Error Detection: "BAT" descriptor

Under/Over range Indication: Flashing display

#### Environmental:

##### OPERATING TEMPERATURE

-4°F (-20°C) to + 158°F (70°C)

Extended Temp: -22°F (-30°C) to + 158°F (70°C)

##### HUMIDITY

0 - 90% Noncondensing

#### Accuracy: (Rate @ 20°C)

0.1% Full Scale Resolution, ±1 count

#### Temperature Drift:

50 ppm/°C Typical

200 ppm/°C Worst Case

#### Listing: CE Compliant



Flow Instruments  
FIELD INDICATORS

### Inputs:

#### Signal Input:

Full Scale Range: 4 to 20 mA DC

Loop Voltage Drop: 6 Volts Maximum

Reverse Polarity Protected

Over Current Protection to 60 mA

16 Bit resolution; 1 sample every 2 seconds

Low Cutoff supplied to inhibit indications at low flow rates.

#### Reset Input: (contact closure)

Internal Pullup Resistor: 100 kΩ to +3 VDC

High (logic 1): Open or 3-30 VDC

Low (logic 0): Less Than .5 VDC

Minimum On : 25 msec

### Pulse Output:

The pulse output advances with the least significant digit of the totalizer.

Type: Opto-isolated open collector transistor.

Max. voltage (off state): 30 VDC

Current (on state): 5 mA @ .9 V drop, .1mA @ .7 drop

Pulse Duration: 15 msec

Pulse Output Rate: 25 CPS max.

Pulse output divider: User selectable, +1, +10, +100 or off

### Calibration & Operation:

Input Scaling: Via front keypad

Calibration: Via front keypad

Decimal Point: Via front keypad

Reset Input: Via front keypad or remote dry contact closure

Keypad: 4 tactile feedback keys

### Mounting:

0- Circuit Board - OEM option (consult factory)

1- Panel Mount - NEMA 4X Clear Front

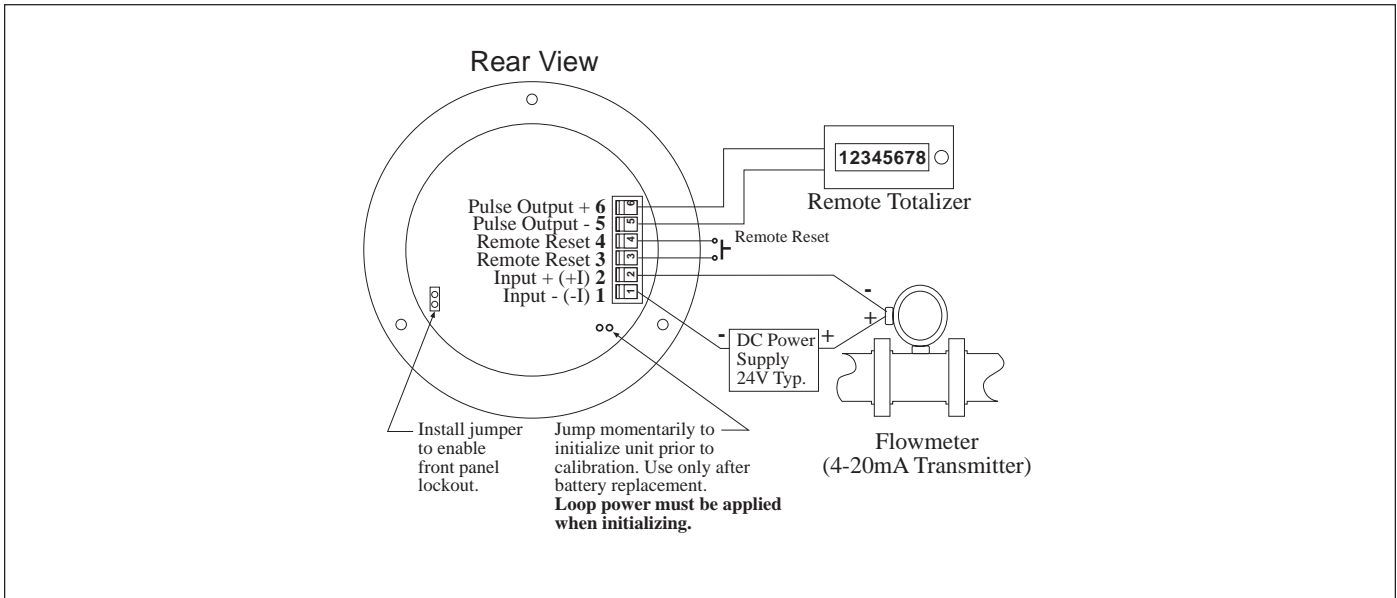
2- Wall Mount - NEMA 4X Enclosure with Squirt mounted behind clear cover

3- Explosion Proof - Class I, Division I, Groups B, C & D  
Class II, Division I, Groups E, F & G

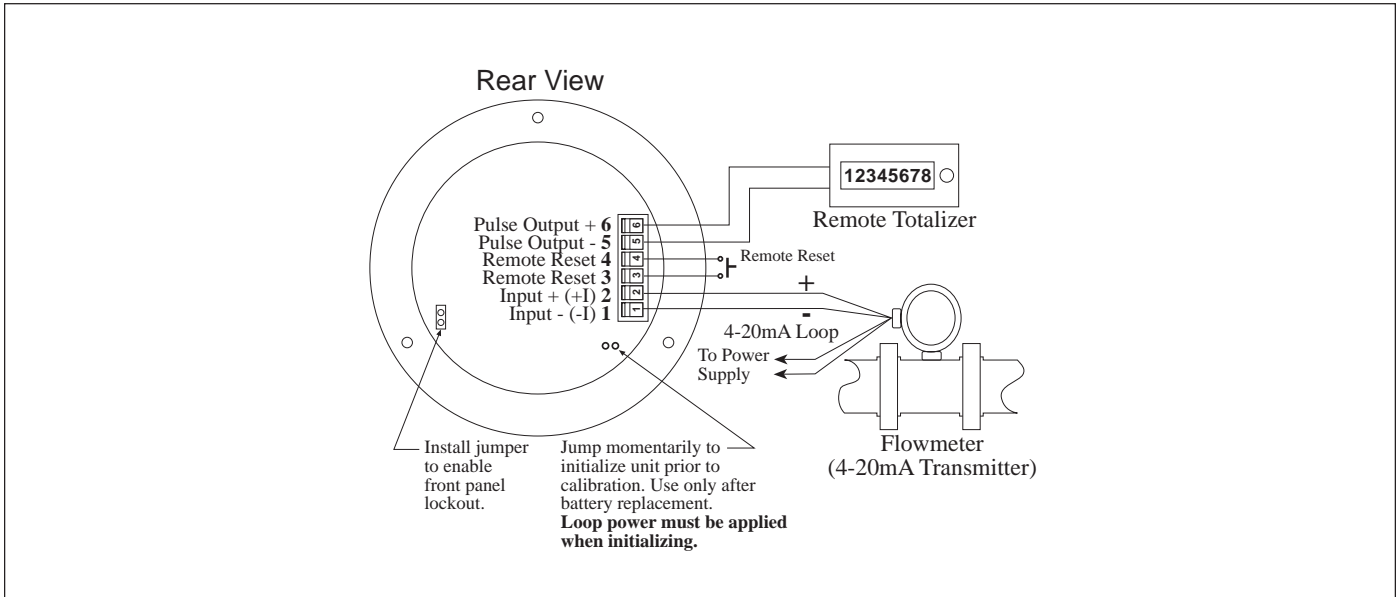
5- Wall Mount - NEMA 4X with Squirt mounted outside opaque cover

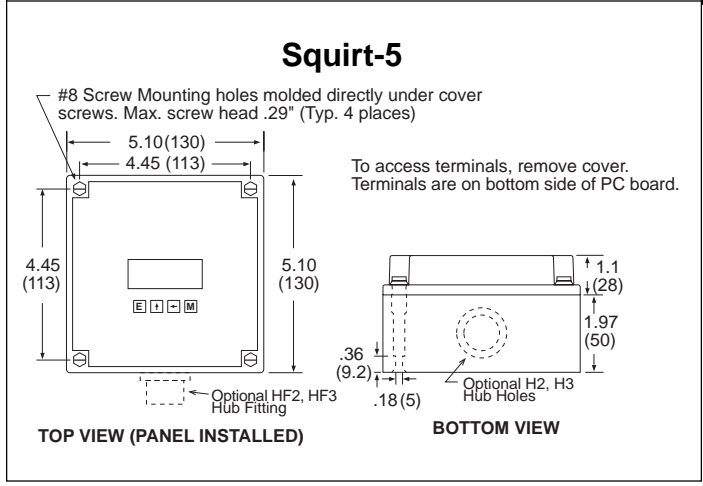
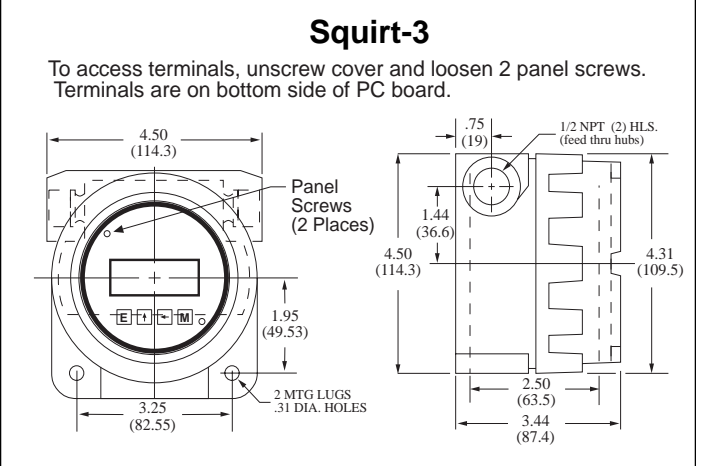
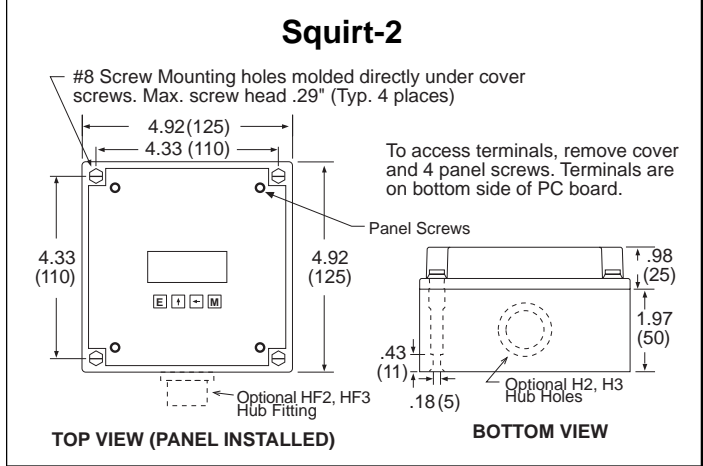
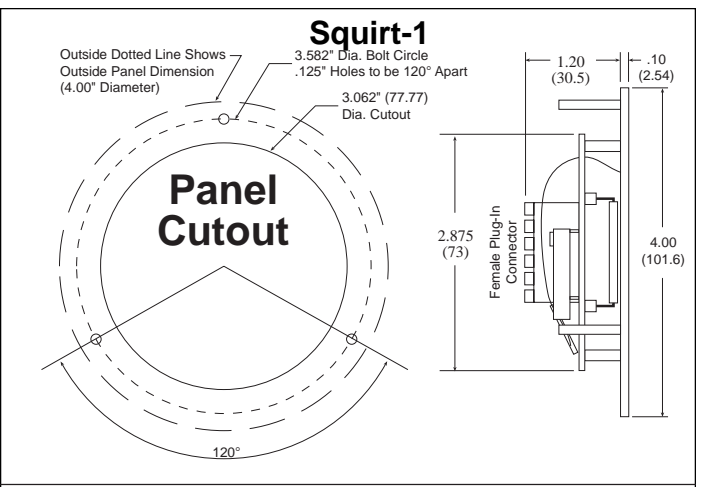
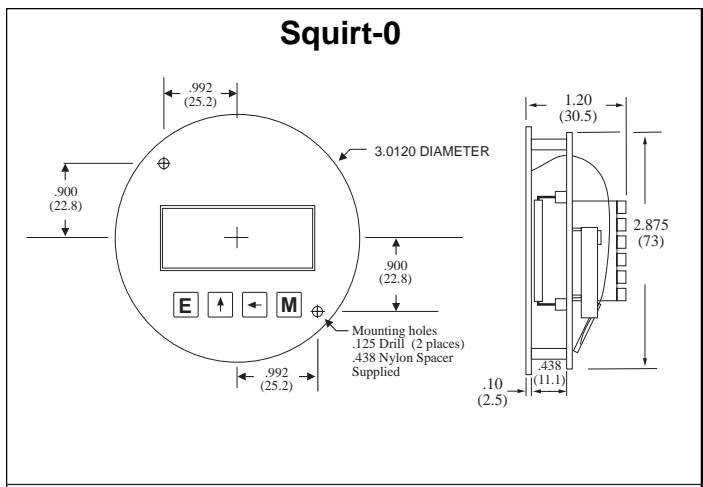
**Wiring:**

**2-Wire Transmitter**



**4-Wire Transmitter**





## Ordering Information

**Example:**      **SQUIRT**      **3**      **ET**

SQUIRT \_\_\_\_\_

Loop powered; Rate & Total

Mounting: \_\_\_\_\_

0 = OEM

1 = Panel Mount

2 = NEMA 4X Box (Squirt behind clear cover)

3 = Explosion Proof Housing

5 = NEMA 4X Box (Squirt outside opaque cover)

Options: \_\_\_\_\_

ET = Extended Temp.: -22°F to 158°F (-30°C to 70°C)

R = External Magnetic Reset  
for NEMA4X & Explosion Proof Enclosures

RX = NEMA7 Explosion Proof Reset Switch  
for Explosion Proof Enclosure with  
3/4" straight thread side entry

H2 = 0.875" Hole for mounting styles 2 and 5

HF2 = 0.5" Female NPT Hub fitting for mounting styles 2 and 5

H3 = 1.125" Hole for mounting styles 2 and 5

HF3 = 0.75" Female NPT Hub fitting for mounting styles 2 and 5