Squirt-R

Loop Powered Indicator

Features

- Linear or Square Root Extraction of Input
- 3 $\frac{1}{2}$ or 4 $\frac{1}{2}$ Digit Display (Selectable)
- Calibration, High and Low Values Fully Programmable Through Keypad
- NEMA 4X / IP65 Front
- No Dipswitches or Pots to Adjust
- 16 Bit A/D Resolution
- Password Protection of Menu

Mounting Style 1

Mounting Style 2

Mounting Style 3NE

Mounting Style 3SS

Mounting Style 5

Mounting Style 6

Description:
Featuring up to 4 1/2 digits of display, the Squirt-R is a loop powered indicator capable of accepting either linear or square root 4-20 mA inputs. Numeric password protection prevents un-authorized access to the menu. The easy-to-read menu prompts make the Squirt-R so easy to program that you will feel comfort-able programming it without the use of a manual.

Specifications:
Power:
Loop powered 4-20 mA
Internal Battery (Setup memory storage only):
3 V 250 mA-H Lithium (2 yr. Standby life)
Display:
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"
Units Descriptors: GAL, LIT, FT3, M3, "blank"
Low Battery Error Detection: "BAT" descriptor & flashing display
Under/Over range Indication: Display flashes when out of range
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
Listing: CE Compliant
Accuracy: (Indication @ 20°C)
0.1% Full Scale Resolution
Temperature Drift:
   50 ppm/°C Typical
   200 ppm/°C Worst Case
Lockout:
Password: Unauthorized menu changes can be prevented by entering a user selectable password (5 digit number).
Jumper: An internal jumper shunt is provided for a "sealed" menu lockout. Install the jumper to enable the lock.
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.
Calibration & Operation:
Input Scaling: Via front keypad
Calibration: Via front keypad
Decimal Point: Via front keypad
Keypad: 4 tactile feedback keys

Mounting:
0- Circuit Board- OEM option (consult factory)
1- Panel Mount - NEMA 4X Front
2- Wall Mount - NEMA 4X Enclosure
   (keypad mounted behind clear cover)
3NE- Explosion Proof - White, Includes Third Conduit Entry
   Class I, Division I, Groups B, C & D
   Class II, Division I, Groups E, F & G
3SS- Explosion Proof - Stainless Steel
   Class I, Division I, Groups B, C & D
   Class II, Division I, Groups E, F & G
5- Wall Mount - NEMA 4X Enclosure
   (keypad mounted on cover)
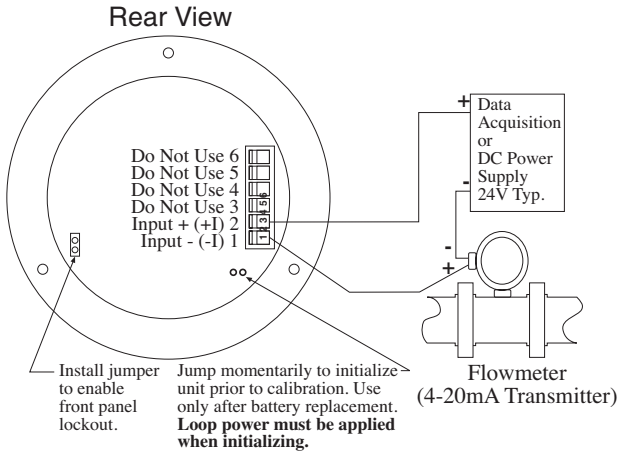**6**- Double Ended Explosion Proof -
   Class I, Division I, Groups B, C & D
   Class II, Division I, Groups E, F & G
   (contact factory for details)
NOTE: Meter mounting kits available for styles 2, 3, 5 and 6
   Consult Factory
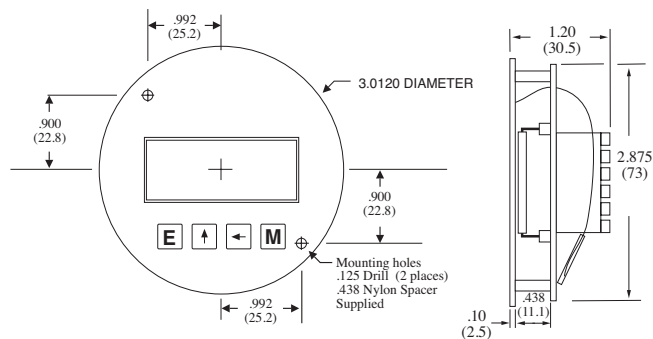
Typical Wiring: (2-Wire Transmitter)

Rear View

Do Not Use 6
Do Not Use 5
Do Not Use 4
Do Not Use 3
Input + (+I) 2
Input - (-I) 1

+ Data
Acquisition
or
DC Power
Supply
24V Typ.
-

Flowmeter
(4-20mA Transmitter)

Install jumper to enable front panel lockout.

Jump momentarily to initialize unit prior to calibration. Use only after battery replacement. **Loop power must be applied when initializing.**
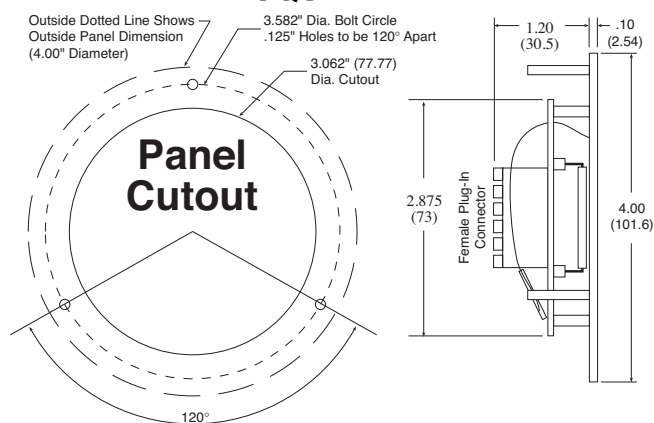
Ordering Information

Example: **SQUIRTR** **3** *ET*

SQUIRTR
   Loop powered; Rate Only
Mounting:
   0 = OEM
   1 = Panel Mount
   2 = NEMA 4X Box (Squirt behind clear cover)
   3NE = Explosion Proof Housing, White
           Includes Third Conduit Entry
   3SS = Stainless Steel Ex-Proof Housing
   5 = NEMA 4X Box (Squirt outside opaque cover)
   6 = Double Ended Explosion Proof Housing
Options:
   ET = Extended Temp.: -22°F to 158°F (-30°C to 70°C)
   ATEXCASE** = European Flame Proof
               ATEX Case (consult factory)
   H2 = 0.875" Hole for mounting styles 2 and 5
   CG - Cable Grip with Locking Nut
       used for H2 option
   HF2 = 1/2" Female NPT Hub fitting (mount styles 2 & 5)
   H3 = 1.125" Hole for mounting styles 2 and 5
   HF3 = 3/4" Female NPT Hub fitting (mount styles 2 & 5)

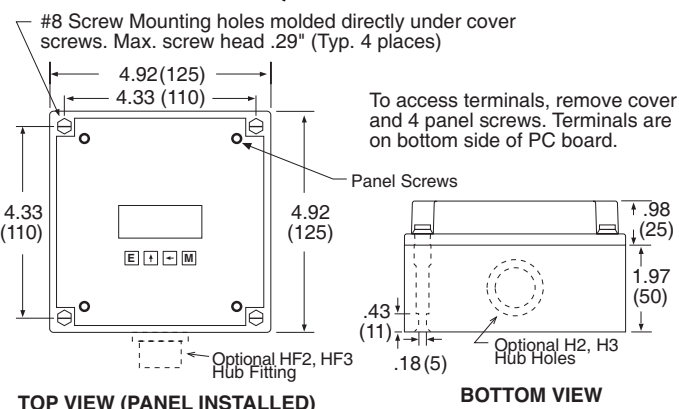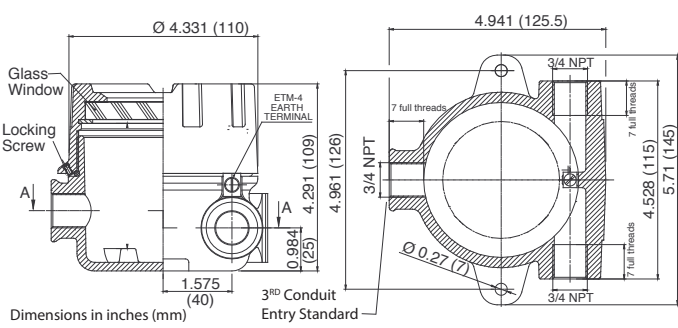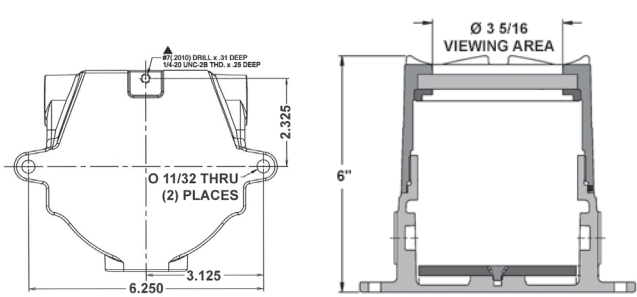** Contact factory for latest information

SQUIRTR-0

.992 (25.2)

1.20 (30.5)

3.0120 DIAMETER

.900 (22.8)

2.875 (73)

.900 (22.8)

E ↑ ← M

Mounting holes .125 Drill (2 places) .438 Nylon Spacer Supplied

.992 (25.2)

.438 (11.1)

.10 (2.5)

SQUIRTR-1

Outside Dotted Line Shows Outside Panel Dimension (4.00" Diameter)

3.582" Dia. Bolt Circle .125" Holes to be 120° Apart

3.062" (77.77) Dia. Cutout

1.20 (30.5)

.10 (2.54)

Panel Cutout

2.875 (73)

Female Plug-In Connector

4.00 (101.6)

120°

SQUIRTR-2

#8 Screw Mounting holes molded directly under cover screws. Max. screw head .29" (Typ. 4 places)

4.92 (125)
4.33 (110)

To access terminals, remove cover and 4 panel screws. Terminals are on bottom side of PC board.

Panel Screws

4.33 (110)

4.92 (125)

E ↑ ← M

.98 (25)

1.97 (50)

.43 (11)

.18 (5)

Optional HF2, HF3 Hub Fitting

Optional H2, H3 Hub Holes

TOP VIEW (PANEL INSTALLED)

BOTTOM VIEW

SQUIRTR-3NE

Ø 4.331 (110)

4.941 (125.5)

Glass Window

3/4 NPT

7 full threads

ETM-4 EARTH TERMINAL

Locking Screw

4.291 (109)

4.961 (126)

3/4 NPT

7 full threads

4.528 (115)

5.71 (145)

A

A

0.984 (25)

7 full threads

Ø 0.27 (7)

1.575 (40)

3RD Conduit Entry Standard

3/4 NPT

Dimensions in inches (mm)

SQUIRTR-3SS

Ø 3 5/16 VIEWING AREA

#7(.2010) DRILL x .31 DEEP 1/4-20 UNC-2B THD. x .25 DEEP

2.325

6"

O 11/32 THRU (2) PLACES

3.125

6.250

SQUIRTR-5

#8 Screw Mounting holes molded directly under cover screws. Max. screw head .29" (Typ. 4 places)

5.10 (130)
4.45 (113)

To access terminals, remove cover. Terminals are on bottom side of PC board.

4.45 (113)

5.10 (130)

E ↑ ← M

1.1 (28)

1.97 (50)

.36 (9.2)

.18 (5)

Optional HF2, HF3 Hub Fitting

Optional H2, H3 Hub Holes

TOP VIEW (PANEL INSTALLED)

BOTTOM VIEW

SQUIRTR-6

5.375"

5.5"

1.188"

5.625"

2.375"

2.25"