



# PRODUCT CONFIGURATION



### **QSE MAG FLOWMETER**

The QSE Mag Series is a dependable highly accurate electromagnetic flowmeter designed for flow and usage monitoring in commercial applications.

The Noryl® housing and flow tube offer a lightweight, easyto-install Mag Meter that is resistant to heat (210°F / 99°C) and compatible with many water-based liquid solutions.

The QSE Mag Meter monitors flow rate and total flow in a wide variety of applications including: HVAC, Turf/ Irrigation and other water reclamation applications.

### **FEATURES / BENEFITS**

- · Low investment and operating costs
- ± .5% Accuracy of Reading
- Wide turndown ratio 0.25 to 15.0 fps (0.076 to 4.6 mps)
- Non-intrusive, no moving parts to wear out, maintenance, repair costs low and tolerates high flows without damage
- The slightly modified bore permits unobstructed flow and minimizes flow disturbances and straight pipe requirements
- 7 line sizes (1/2" to 4") 1/2", 3/4", 1", 1-1/2", 2", 3", & 4"
- Housing ported with "Thermal Well Supports" for sensors (Energy Management)
- Compatible with GPI 09 Electronics Display or FLOMEC QSI I/O Board

#### PRODUCT IDENTIFIER 1

**QSE** = Electro-Magnetic Flow Meter

SIZE 2

**05** = 1/2" **07** = 3/4" **10** = 1" **15** = 1-1/2" **20** = 2" **30** = 3" (Flange only)

**40** = 4" (Flange only)

#### FITTING 3

- **NPT** = NPT (Male)
- BSP = BSP (Male) (Rc Thread)
- FAP = ANSI Flange Polymer (3" & 4" Only)
- FAS = ANSI Flange Steel (3" & 4" Only)
- FDS = DIN Flange Steel (3" & 4" Only)

#### ELECTRONIC CHOICE 4

09 = Computer w/Integral Display & Meter Mounted Transmitter (Pulse Out) 2-Button Computer, Field-configurable (2 Totals, 2 Cals, Rate), Coverplate Transmitter w/Pulse Out (Open Collector Square Wave)

**QB** = *Meter Mounted Transmitter (Pulse Out)* Coverplate Transmitter, w/Pulse Out (Open Collector Square Wave)

#### COMMUNICATION CHOICE 5

**Q1** = *Integrates with Any Electronic Choice* QSI Module: Blue Tooth®, Coil/Digital Pulse Input, Pulse Output (Flow or Energy & Scalable), RS485 (MODbus RDU), Temperature Inputs, BTU Calculator.

Energy Use Computation Note: Energy Use Computation Requires Temperature Sensor Probes (Select Probes Below)

**Q2** = Integrates with Any Electronic Choice QSI Module: Blue Tooth®, Coil/Digital Pulse Input, Pulse Output (Flow or Energy & Scalable), Data Logger, Temperature Inputs, BTU Calculator. Energy Use Computation Note: Energy Use Computation Requires Temperature Sensor Probes (Select Probes Below)

**Q3** = *Integrates with Any Electronic Choice* QSI Module: Blue Tooth®, Coil/Digital Pulse Input, Pulse Output (Scalable), Data Logger, 4-20mA.

XX = No Communication Suite

#### TEMPERATURE SENSOR PROBES 6

1 = Integrates with QSI Communications Choice for Energy Use Computation (2ea) 1" Long Temperature Sensor Probes w/Cables (10 ft.) (Customer Installed), Used with 1/2" through 2" Meters

2 = Integrates with QSI Communications Choice for Energy Use Computation (2ea) 2" Long Temperature Sensor Probes w/Cables (10 ft.) (Customer Installed), Used with 3" and 4" Meters

X = No Temperature Probes

#### PACKAGING (Auto Select) 7

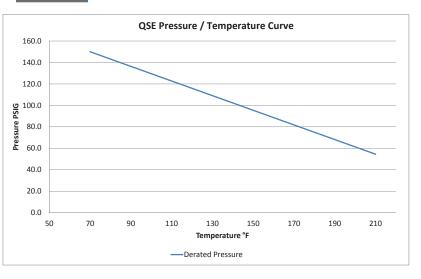
- **A** = 1/2" 2" Meters
- $\mathbf{B} = 3$ " Meter

**C** = 4" Meter

## **SPECIFICATIONS**

| Fitting Type:             | NPT, BSP, ANSI Flanged, DIN Flanged             |                                     |  |
|---------------------------|---|-------------------------------------|--|
|                           | 1/2" to 2" - NPT (Male), BSP (Male) (Rc Thread) |                                     |  |
|                           | 3" & 4" ANSI Flanged - Polymer Flange           |                                     |  |
|                           | 3" & 4" ANSI Flanged - Steel Flange             |                                     |  |
|                           | 3" & 4" DIN F                                   | Flanged - Steel Flange              |  |
| Housing Material:         |   | Noryl®                              |  |
| Pipe Sizes:               |   | 1/2", 3/4", 1", 1-1/2", 2", 3", 4"  |  |
| Pressure Rating:          |   | 150 PSI @ 73° F (10 BAR @23° C)     |  |
| Flow:                     | Velocity  | 0.25 to 15 FPS                      |  |
|                           | 1/2" (05)                                       | 0.15 - 10 GPM                       | 0.56 - 38 LPM                          |
|                           | 3/4" (07)                                       | 0.3 - 20 GPM                        | 1.13 - 76 LPM                          |
|                           | 1" (10)   | 0.6 - 40 GPM                        | 2.27 - 151 LPM                         |
|                           | 1-1/2" (15)                                     | 1.2 - 80 GPM                        | 4.54 - 303 LPM                         |
|                           | 2" (20)   | 2.25 - 150 GPM                      | 8.5 - 568 LPM                          |
|                           | 3" (30)   | 4.5 - 300 GPM                       | 17 - 1136 LPM                          |
|                           | 4" (40)   | 9 - 600 GPM                         | 34 - 2271 LPM                          |
| *Accuracy (% of Reading): |   | ±2%                                 | ±0.5%                                  |
|                           | 1/2" (05)                                       | 0.15 - 0.6 GPM /<br>0.56 - 2.27 LPM | 0.61 - 10 GPM<br>2.28 - 38 LPM         |
|                           | 3/4" (07)                                       | 0.3 - 1.2 GPM /<br>0.56 - 4.54 LPM  | 1.21 - 20 GPM /<br>4.55 - 76 LPM       |
|                           | 1" (10)   | 0.6 - 2.4 GPM /<br>2.27 - 9.08 LPM  | 2.41 - 40 GPM<br>9.09- 151 LPM         |
|                           | 1-1/2" (15)                                     | 1.2 - 4.8 GPM /<br>4.54 - 18.17 LPM | 4.81 - 80 GPM<br>18.18 - 303 LPM       |
|                           | 2" (20)   | 2.25 - 9.0 GPM /<br>8.5 - 34.07 LPM | 9.01 - 150 GPM /<br>34.08 - 568 LPM    |
|                           | 3" (30)   | 4.5 - 18.0 GPM /<br>17 - 68.14 LPM  | 18.01 - 300 GPM<br>68.15 - 1136 LPM    |
|                           | 4" (40)   | 9 - 36.0 GPM<br>34 - 136.28 LPM     | 36.01 - 600 GPM /<br>136.29 - 2271 LPM |

| Operating Temperature Range: |                    | 1/2"-2": 32° F to 210° F (0° C to 99° C) |  |
|------------------------------|--------------------|--|--|
|                              |                    | 3"-4": 32° F to 180° F (0° C to 82° C)   |  |
| Typical<br>K-Factor:         | 1/2" (05)          | 4347 PPG (1158.5 PPL)                    |  |
|                              | 3/4" (07)          | 1937 PPG (511.8 PPL)                     |  |
|                              | 1" (10)            | 1089 PPG (287.7 PPL)                     |  |
|                              | 1-1/2" (15)        | 484.1 PPG (127.9 PPL)                    |  |
|                              | 2" (20)            | 400 PPG (105.7 PPL)                      |  |
|                              | 3" (30)            | 121 PPG (32.0 PPL)                       |  |
|                              | 4" (40)            | 68.1 PPG (18.0 PPL)                      |  |
| Wetted<br>Materials:         | Electrodes         | 316L SS                                  |  |
|                              | Seals              | NBR O-Rings                              |  |
| Frequency<br>Range:          | All Sizes          | 10 Hz Minimum - 1,000 Hz Maximum         |  |
| Calibration<br>Report:       | Standard           |  |  |
|                              | N.I.S.T. Available |  |  |



# **APPLICATIONS**

#### Turf / Irrigation

- Agriculture Irrigation
- Turf Irrigation Systems
- Micro Irrigation Systems

**APPROVALS** 

- HVAC
- EMS (Energy Management Systems)
- BAS (Building Automation Systems)

#### Institutional

- Chilled water
- Domestic water (hot and cold)
- Energy sub-metering (BTU hot and cold)
- Process (blow down, make up, boiler feed, etc.)



## 1-888-722-3569