



## QSE MAG FLOWMETER

The **FLOMEC® QSE Mag Series** is a dependable highly accurate electromagnetic flowmeter designed for flow and usage monitoring in commercial applications, such as wastewater that is dumped into a city sewer system.

The Noryl™ housing and flow tube offer a lightweight, easy-to-install Mag Meter that is resistant to heat and compatible with many water-based liquid solutions. **This plastic Mag Meter is specifically designed to be used in applications where plastic piping is used.**

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
- ± 0.5% Accuracy of Reading (from 0.25 fps to 15 fps [0.08 to 4.6 m/s])
- Wide turndown ratio of 60:1
- Non-intrusive, no moving parts to wear out, low maintenance and repair cost, tolerates high flows without damage
- The slightly modified bore permits unobstructed flow, minimizes flow disturbances and straight pipe requirements
- Seven line sizes (½" to 4") ½", ¾", 1", 1-½", 2", 3", and 4" **FOR INSTALLATION ON PLASTIC PIPE ONLY**
- Housing ported with "Thermal Well Supports" for sensors (Energy Management)
- Compatible with FLOMEC Q9 Electronics Display or FLOMEC QSI I/O Board

## PRODUCT CONFIGURATION

### 1 PRODUCT IDENTIFIER:

**QSE** = Electro-Magnetic Flowmeter

### 2 TURBINE SIZE:

**05** = ½" (15 mm)

**07** = ¾" (20 mm)

**10** = 1" (25 mm)

**15** = 1-½" (40 mm)

**20** = 2" (50 mm)

**30** = 3" (80 mm) (Flange Only)

**40** = 4" (100 mm) (Flange Only)

### 3 FITTING:

**NPT** = NPT (Male) (½" to 2" Only)

**BSP** = BSPP (Male) (ISO 228) (½" to 2" Only)

**FAP** = ANSI Flange - Polymer (3" & 4" Only)

### 4 ELECTRONIC CHOICE:

**Q9** = 2-Button Integral Display with 2 Totals (Batch Total = Resettable, Total = Non-Resettable) and Rate of Flow. Also provides a Scaled Pulse Output (NPN Open Collector).

**42** = 2-Button Integral Display with 2 Totals (Batch Total = Resettable, Total = Non-Resettable) and Rate of Flow. Also provides 4-20 mA Output and Scaled Pulse Output (NPN Open Collector).

**QB** = Integral Pulse Transmitter, Unscaled Pulse Output (NPN Open Collector)

### 5 COMMUNICATION CHOICE:

**Q1** = QSI Module: Bluetooth®, Pulse Output (Flow or Energy and Scalable), RS485 (Modbus RTU or BACnet® MS/TP), Temperature Inputs, BTU Calculator. Energy Use Computation *Note: Energy Use Computation Requires Temperature Sensor Probes (Select Probes Below). No Local Display Option.*

**Q2** = QSI Module: Bluetooth®, Pulse Output (Flow or Energy and Scalable), Temperature Inputs, BTU (Heat) Calculator. Energy Use Computation *Note: Energy Use Computation Requires Temperature Sensor Probes (Select Probes Below). No Local Display Option.*

**Q3** = QSI Module: Bluetooth®, Pulse Output (Scalable), 4-20mA. *No Local Display Option.*

**XX** = No Communication Suite. Required for Q9 and 42 Electronic Choice.

### 6 TEMPERATURE SENSOR PROBES (NOT NSF Certified):

**1** = **Integrates with QSI Communications Choice for Energy Use Computation** (2ea) 1" (25 mm) Long Temperature Sensor Probes w/Cables (10 ft. [3 m]), Used with ½" through 2" Meters

**2** = **Integrates with QSI Communications Choice for Energy Use Computation** (2ea) 2" (50 mm) Long Temperature Sensor Probes w/Cables (10 ft. [3 m]), Used with 3" and 4" Meters

**X** = No Temperature Probes

### 7 PACKAGING:

**A** = 1/2" - 2" Meters with Q9 or QB Electronics Choice

1/2", 3/4" and 1" Meters with 42 Electronics Choice

**B** = 3" Meter

**C** = 4" Meter

**D** = 1-1/2" and 2" Meters with 42 Electronics Choice

**1 2 3 4 5 6 7**

>>>> **QSE 30 FAP Q9 XX X B**



# SPECIFICATIONS

<b>Fitting Type:</b>	NPT, BSP, ANSI Flanged	
	1/2" to 2" - NPT (Male), BSPP (Male) (ISO 228)	
	3" and 4" 150# ANSI Flanged - Polymer Flange	
<b>Recommended Plastic Flange Bolt Torque:</b>	25 ft.-lbs. (33.9 N·m)	
<b>Pipe Sizes:</b>	1/2", 3/4", 1", 1-1/2", 2", 3", 4"	
<b>Pressure Rating:</b>	150 psi @ 70° F (10.3 bar @ 21° C)	
<b>Velocity:</b>	0.25 to 15 fps (0.08 to 4.6 m/s)	
<b>Flow:</b>	1/2" (05)	0.167 - 10 GPM (0.632 - 37.85 L/min)
	3/4" (07)	0.33 - 20 GPM (1.25 - 75.71 L/min)
	1" (10)	0.67 - 40 GPM (2.54 - 151.42 L/min)
	1-1/2" (15)	1.33 - 80 GPM (5.03 - 302.83 L/min)
	2" (20)	2.5 - 150 GPM (9.46 - 567.81 L/min)
	3" (30)	5 - 300 GPM (18.93 - 1135.62 L/min)
	4" (40)	10 - 600 GPM (37.85 - 2271.25 L/min)
<b>Accuracy</b>		
±0.5% of Reading between 0.25 fps and 15 fps (0.08 m/s and 4.6 m/s) (Reference Owner's Manual for complete accuracy and uncertainty specifications)		

<b>Operating Temperature Range:</b>	32° F to 180° F (0° C to 82° C)	
<b>Ambient Temperature Range:</b>	0° F to 140° F (-18° C to 60° C)	
<b>Typical K-Factor:</b>	1/2" (05)	4347 PPG (1148.4 Pulses/L)
	3/4" (07)	1937 PPG (511.7 Pulses/L)
	1" (10)	1089 PPG (287.7 Pulses/L)
	1-1/2" (15)	484.1 PPG (127.9 Pulses/L)
	2" (20)	400 PPG (105.7 Pulses/L)
	3" (30)	121 PPG (32.0 Pulses/L)
	4" (40)	68.1 PPG (18.0 Pulses/L)
<b>Power Supply:</b>	Externally Powered	
	Voltage Supply (Min): 12V (dc)	
	Voltage Supply (Max): 36V (dc)	
<b>Consumption:</b>	Max current consumption (QSE with QSB): 75mA	
	Max current consumption (QSE with QS): 150mA	
<b>Wetted Materials:</b>	Body	Noryl™
	Electrodes	316L SS
	Seals	EPDM O-Rings
<b>Output Frequency Range:</b>	All Sizes	10 Hz Minimum - 1,000 Hz Maximum
<b>Calibration Report:</b>	N.I.S.T. Certification Available	

## APPLICATIONS

- Waste Water Monitoring
- Agriculture Irrigation
- Turf Irrigation Systems
- Micro Irrigation Systems
- EMS (Energy Management Systems)
- Reclaimed (Recycled) Water
- Greywater
- BAS (Building Automation Systems)
- Chilled water
- Domestic water (hot and cold)
- Energy sub-metering (BTU hot and cold)
- OEM Water Treatment Skids
- Cooling Tower Bleed-Off

## CERTIFICATIONS

IP67



**Derated Pressure Curve for QSE (Pressure vs Temperature)**

