



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 (Open Collector Square Wave), Includes Four Strain Reliefs.

5 COMMUNICATION CHOICE:

Q1 = QSI Module: Bluetooth®, Coil/Digital Pulse Input, Pulse Output (Flow or Energy and Scalable), RS485 (Modbus RDU 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®, Coil/Digital Pulse Input, 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®, Coil/Digital Pulse Input, Pulse Output (Scalable), 4-20mA. *No Local Display Option.*

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

6 TEMPERATURE SENSOR PROBES:

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

Fitting Type:	NPT, BSP, ANSI Flanged	
	1/2" to 2" - NPT (Male), BSPP (Male) (ISO 228)	
	3" and 4" 150# ANSI Flanged - Polymer Flange	
Recommended Plastic Flange Bolt Torque:	25 ft.-lbs. (33.9 N-m)	
Pipe Sizes:	1/2", 3/4", 1", 1-1/2", 2", 3", 4"	
Pressure Rating:	150 psi @ 73° F (10 bar @ 23° C)	
Velocity:	0.25 to 15 fps (0.08 to 4.6 m/s)	
Flow:	1/2" (05)	0.16 - 10 GPM (0.63 - 38 L/min)
	3/4" (07)	0.3 - 20 GPM (1.27 - 76 L/min)
	1" (10)	0.6 - 40 GPM (2.52 - 151 L/min)
	1-1/2" (15)	1.3 - 80 GPM (5.05 - 303 L/min)
	2" (20)	2.5 - 150 GPM (9.47 - 568 L/min)
	3" (30)	5 - 300 GPM (19 - 1136 L/min)
	4" (40)	10 - 600 GPM (38 - 2271 L/min)
Accuracy		
±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)		

Operating Temperature Range:	32° F to 180° F (0° C to 82° C)	
Ambient Temperature Range:	0° F to 140° F (-18° C to 60° C)	
Typical K-Factor:	1/2" (05)	4347 PPG (1158.5 Pulses/L)
	3/4" (07)	1937 PPG (511.8 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)
Power Supply:	Externally Powered	
	Voltage Supply (Min): 12V (dc)	
	Voltage Supply (Max): 36V (dc)	
Consumption:	Max current consumption (QSE with QSB): 75mA	
	Max current consumption (QSE with QS): 150mA	
Wetted Materials:	Body	Noryl™
	Electrodes	316L SS
	Seals	EPDM O-Rings
Output Frequency Range:	All Sizes	10 Hz Minimum - 1,000 Hz Maximum
Calibration Report:	N.I.S.T. - Standard	

APPLICATIONS

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

CERTIFICATIONS

IP67



Derated Pressure Curve for QSE (Pressure vs Temperature)

