QSE MAG FLOWMETER

The **FLOMEC® QSE Mag Series** is a dependable highly accurate electromagnetic flow meter 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. **When installing to metal pipe, it is recommended to use flexible expansion joints on one or both ends to eliminate any stresses that might be incurred from misaligned rigid metal piping.**

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", 1½", 2", 3", and 4"
- 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 = 1½" (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 (Probes Must be Customer Supplied). 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 (Probes Must be Customer Supplied). 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:

X = No Temperature Probes

7 PACKAGING:

A = ½" - 2" Meters with Q9 or QB Electronics Choice
½", ¾" and 1" Meters with 42 Electronics Choice
B = 3" Meter
C = 4" Meter
D = 1½" and 2" Meters with 42 Electronics Choice

	1	2	3	4	5	6	7
>>>>	QSE	30	FAP	Q9	XX	X	B

FLOMEC®

SPECIFICATIONS

Fitting Type:	NPT, BSPP, ANSI Flanged	
	½" 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:	½", ¾", 1", 1½", 2", 3", 4"	
Pressure Rating:	150 psi @ 70°F (10.3 bar @ 21°C)	
Velocity:	0.25 to 15 fps (0.08 to 4.6 m/s)	
Flow:	½" (05)	0.167 - 10 GPM (0.632 - 37.85 L/min)
	¾" (07)	0.33 - 20 GPM (1.25 - 75.71 L/min)
	1" (10)	0.67 - 40 GPM (2.54 - 151.42 L/min)
	1½" (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)
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:		32°F to 140°F (0°C to 60°C)
Typical K-Factor:	½" (05)	4347 PPG (1148.4 Pulses/L)
	¾" (07)	1937 PPG (511.7 Pulses/L)
	1" (10)	1089 PPG (287.7 Pulses/L)
	1½" (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 QSI): 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. Certification Available

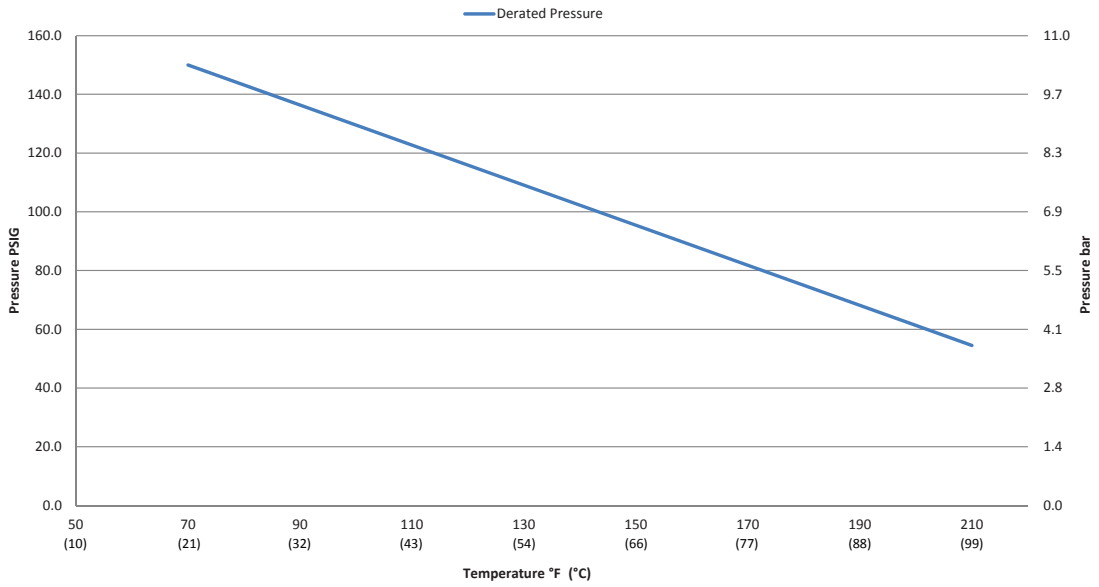
APPLICATIONS

- 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 CE

Derated Pressure Curve for QSE (Pressure vs Temperature)



Wichita · Sydney

GREAT PLAINS INDUSTRIES

Service & Warranty: For technical assistance, warranty replacement or repair contact your **FLOMEC®** or **GPI®** distributor: In North or South America: **888-996-3837 / FLOMECmeters.com** Outside North or South America: **+61 2 9540 4433 / FLOMECmeters.com**

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