



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, easy-to-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
- ± 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, 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" (15 mm)
07 = 3/4" (20 mm)
10 = 1" (25 mm)
15 = 1-1/2" (40 mm)
20 = 2" (50 mm)
30 = 3" (80 mm) (Flange only)
40 = 4" (100 mm) (Flange only)

FITTING **3**

NPT = NPT (Male) (1/2" to 2" Only)
BSP = BSP (Male) (Rc Thread) (1/2" to 2" Only)
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 = 2-Button Integral Display, Field Configurable (Cumulative, Batch & Rate) and Integral Pulse Transmitter (Open Collector Square Wave), Includes Four Strain Reliefs

QB = Integral Pulse Transmitter (Open Collector Square Wave), Includes Four Strain Reliefs

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 RTU), 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 (Heat) 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" (25 mm) Long Temperature Sensor Probes w/Cables (10 ft. [3 m]) (Customer Installed), Used with 1/2" 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]) (Customer Installed), Used with 3" and 4" Meters

X = No Temperature Probes

PACKAGING (Auto Select) **7**

A = 1/2" - 2" Meters
B = 3" Meter
C = 4" Meter

SPECIFICATIONS

Fitting Type:	NPT, BSP, ANSI Flanged, DIN Flanged	
	1/2" to 2" - NPT (Male), BSPP (Male) (ISO 228)	
	3" & 4" 150# ANSI Flanged - Polymer Flange	
	3" & 4" ANSI Flanged - Steel Flange	
	3" & 4" DIN Flanged - Steel 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 4.57 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 4.57 m/s) (Reference Owner's Manual for complete accuracy and uncertainty specifications)	

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)	
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 or ac)	
	Voltage Supply (Max): 30V (dc or ac)	
Consumption:	Max current consumption (QSE with QSB): 75mA	
	Max current consumption (QSE with QSI): 150mA	
Wetted Materials:	Body	Noryl™
	Electrodes	316L SS
	Seals	NBR O-Rings
Frequency Range:	All Sizes	10 Hz Minimum - 1,000 Hz Maximum (with 09 Display)
		10 Hz Minimum - 3,000 Hz Maximum (with Blind Pulse Out)
Calibration Report:	Standard	
	N.I.S.T. Available	

APPLICATIONS

- Agriculture Irrigation
- Turf Irrigation Systems
- Micro Irrigation Systems
- HVAC
- EMS (Energy Management Systems)
- BAS (Building Automation Systems)
- Chilled water
- Domestic water (hot and cold)
- Energy sub-metering (BTU hot and cold)
- Process (blow down, make up, boiler feed, etc.)

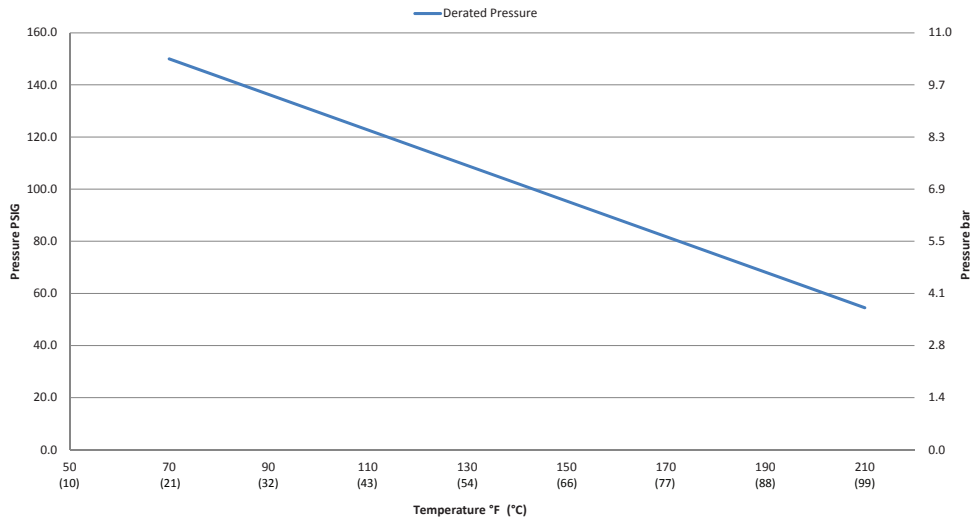
APPROVALS

NEMA 6P

IP68



Derated Pressure Curve for QSE (Pressure vs Temperature)



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

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