

FLAMEC®

GPI®



WATER & IRRIGATION METERS

QUALITY FLOW METERS FOR THE AGRICULTURE AND AQUIFER MANAGEMENT



Quality Engineered Systems

JSC
Industrial Systems

QMag (MAGNETIC) FLOW METER

The QSE (Magnetic) Flow Meter

The QMag flow meter has been engineered to meet the needs of measuring water flow & other conductive fluids such as potable water, slurries, waste water, abrasive liquids & chemicals.

Unlike oval geared meters that cannot provide low turn down measure of water flow, the QMag uses the Faraday Law¹ of a magnetic field to accurately measure water flow. It should be noted that the QMag flow meters do not work on low conductive fluids such as hydrocarbons or de-ionised water.

The QMag flow meter has been engineered with a PPE material making it lighter weight, corrosive resistant & lower cost than Stainless Steel meters that currently are specified in this environment.

Feature & Benefits:

- Light weight
- Lower cost than Stainless Steel
- High water flow accuracy
- Available from ½" to 4"
- Available with 2 temperature probes
- Range of outputs; 4-20mA, scaled pulse, RS485 etc
- Software available from Android & training for sales team via Bluetooth programming



New Blind Mag Meter 3 inch Flanged



New Blind Mag Meter 2 inch NPT

General Specifications

SIZE	VELOCITY	ACCURACY OF READING (%)		TYPICAL K-FACTOR PULSES PER LITRE
	Flow	± 3%	± 5%	
	LPM	LPM	LPM	
½"	0.56 - 38	0.56 - 3.79	3.80 - 38	1150
¾"	1.13 - 76	0.56 - 7.5	7.6 - 76	512.4
1"	2.27 - 151	2.27 - 15.1	15.2 - 151	288.1
1 ½"	4.54 - 303	4.54 - 30.2	30.3 - 303	128.1
2"	8.5 - 568	8.5 - 56.7	56.8 - 568	105.8
3"	17 - 1136	17 - 113.5	113.6 - 1136	32
4"	34 - 2271	34 - 227.1	227.2 - 2271	18

Note¹: Faraday's Law states that the voltage induced across any conductor as it moves at right angles through a magnetic field is proportional to the velocity of that conductor.

TM Series - PVC Turbine Flow Meters

TM series water meters are built to provide accurate and economical solution to measuring water. Available in a range of sizes and options these are great for water and irrigation applications.

Options and additional modules also allow the meter to provide an output reading to connect to water management systems commonly used in irrigation and farming industries. Developed to meet schedule 80 PVC specifications and come standard with a low profile display.

Feature & Benefits:

- Easy to install
- Lower cost than stainless steel
- Display options show; batch, cumulative total and rate of flow
- Lithium batteries – 5 years battery life
- Variety of fitting options available from ½" through to 4"
- Field serviceable
- Meets Schedule 80 specifications



Threaded option in bsp or BSP available



Flange options in available in 3" and 4"



Available with/without display and pulse output

General Specifications

SIZE	VELOCITY	CONNECTION TYPES AVAILABLE	DISPLAY / OUTPUT OPTIONS	TYPICAL K-FACTOR PULSES PER LITRE
	LPM			
½"	3.80 - 38	SPIGOT/NPT	Display and/or output	660
¾"	7.60 - 76	SPIGOT/NPT	Display and/or output	291
1"	19 - 190	SPIGOT/NPT/BSP	Display and/or output	149
1 ½"	38 - 380	SPIGOT/NPT/BSP	Display and/or output	57
2"	76 - 760	SPIGOT/NPT/BSP	Display and/or output	26
3"	151 - 1514	SPIGOT/NPT/ANSI-150/DIN	Display or output	11
4"	227 - 2271	SPIGOT/NPT/ANSI-150/DIN	Display or output	4.50

Calibration Certificates are only supplied to pulse output options

G2 SERIES INDUSTRIAL GRADE TURBINE METERS

G2 Series Turbine Flow Meters

The unique modular approach of the industrial grade meter line allows you to design a meter to match your specific application. These meters offer high accuracy at a lower cost, are compact and include a self-contained design.

Available in 316 stainless steel or brass they are all easy to install and are field serviceable that also include a variety of meter modules to adapt into any existing system. Each meter is available with IECEx certification as standard for explosive area installations and come with a factory calibration certificate.

Feature & Benefits:

- 316 Stainless steel and Brass options available
- Display options show batch, cumulative total and rate of flow
- Lithium batteries – 5 years battery life
- Available from ½" to 2"
- Field serviceable
- Approved with IECEx (intrinsically safe)
- Additional modules available to integrate into systems
- Internal parts are simple to replace for easy maintenance

General Specifications

SIZE	FLOW RANGE LPM		CONNECTION TYPES AVAILABLE	FREQUENCY RANGE	TYPICAL K-FACTOR PULSES PER LITRE
	TYPICAL	MAX FLOW			
½"	3.80 - 38	56.8	BSP/NPT	42 - 420 Hz	660
¾"	7.60 - 76	113.6	BSP/NPT	37 - 370 Hz	291
1"	19 - 190	284	BSP/NPT/ANSI-150	47 - 470 Hz	149
1 ½"	38 - 380	568	BSP/NPT/ANSI-150	36 - 360 Hz	57
2"	76 - 760	1,136	BSP/NPT/ANSI-150	33 - 330 Hz	26



Threaded option in BSP or NPT available



Flange options in available in some sizes



Available in Brass

A1 Series & Economy Turbine Flow Meters

Available in low flow or standard flow, the A1 meter is ideal meter for basic accurate and reliable flow meter that also has IECEx approvals. The meter also utilities a common display (in a different colour) so it too allows for modules that can integrate the meters into existing systems.

The Economy Series meter is for those who need to know what amount of water is going through the line or hose and only shows total value (not flow rate). Commonly used for irrigation monitoring.

Feature & Benefits:

- Nylon housing
- Display options show batch, cumulative total and rate of flow
- Lithium batteries - 5 years battery life
- Thread size 1"
- Output option available

For the A1 series only:

- Approved with IECEx (intrinsically safe)
- Additional modules available to integrate into systems
- Internal parts are simple to replace for easy maintenance



A1 Series Nylon turbine flow meter



Economy Series 1" Only



Economy Series 1" Only – w/ Output Option

General Specifications

	A1 SERIES		ECONOMY SERIES	
MODEL	N025 (LOW FLOW)	N100	01N	02N
FLOW RANGE (LPM)	1 - 11	11 - 190	10 - 100	11 - 113
CONNECTIONS TYPES	BSPT/NPT		BSPT/NPT	BSPT/BSPP/NPT
FREQUENCY RANGE	11 - 110 Hz	36.5 - 608.3 Hz	**NA**	**NA**
PRESSURE RATING	10.2 BAR (150 PSI)		10.2 bar (150 psi)	
ACCURACY	*Application Dependent	± 1.5% OF READING	± 5.0 %	± 5.0 %
REPEATABILITY	± 1%	± 0.2%	± 0.5%	
TEMPERATURE LIMITS	-40° to 121°C		-10° to 55°C	
TYPICAL K-FACTOR (PPL)	581	193	**NA**	**NA**

DP490 & DP525

DP490 and DP525 are cost effective stainless steel flow meters for measuring the flow of water, fuels and other low viscosity liquids in pipes sizes 1½" to 100" (40~2500mm) insertion flow meters are installed with the metering head inserted into the pipe resulting in very little pressure drop. They do not require external power when used with the Flomec rate totalizers however some options such as high temperature and non-magnetic models require external power.

Applications include HVAC, hot and chilled water, fire systems, water distribution (management and treatment), boiler feed water and hydrant flow testing.

Feature & Benefits:

- IP68 (NEMA6) submersible 316SS construction
- Low cost of ownership, wide flow range
- Rugged and compact design
- Intrinsically safe hazardous area versions
- Integral or remote pre-amplifiers and flow instruments
- DP525 version suitable for "hot tap" installation
- Bi-Directional Flow Measurement



Insertion meter w/ display (FRT15)

General Specifications

SPECIFICATIONS	41-DP490	41-DP525
PIPE SIZES	1.5" - 35" (40 - 900mm)	2" - 100" (50 - 2500mm)
CONNECTIONS TYPES	1.5" OR 2" BSPT or NPT Male Thread	2" BSPT or NPT Male Thread
FLOW RANGE (LPM)	0.25 - 6300 L/SEC	0.4 - 49,000 L/SEC
FLOW VELOCITY	0.3 - 10m/sec	
LINEARITY	Typically \pm 1.5% 10 - 1m/sec Over Range	
TEMPERATURE RANGE	-40° TO 150° C	
MAXIMUM PRESSURE	80 BAR (1160 PSI)	
MATERIALS	316 Stainless Steel Body & Rotor Shaft	
PROTECTION CLASS	IP68 (NEMA6), Optional I.S (Intrinsically Safe)	
OUTPUT OPTIONS		
HALL-EFFECT	3 Wire open collector, 5- 24 VDC, 20mA max. Nom 0 - 240 Hz	
REED*	30 VDC, 200 Ma max. Nom 0 - 80 Hz	
VOLTAGE PULSE	Self Generated Voltage. Nom 0 - 240 Hz	
NON-MAGNETIC SENSOR	3 Wire Open Collector, 5- 24 VDC, 20mA max. Nom 0 - 240 Hz	
OPTIONAL OUTPUTS **	4-20mA, Scaled Pulse, Quadrature Pulse	

Modules & Remote Access

All meters that holds a 09 computer display can use a variety of modules to assist installation into existing systems or remotely access information from the meter displays. Each module is used to for a specific purpose With the exception of the QSE Magnetic flow meter.

Depending on the module, you can connect to a pre-existing system, use it as a remote display or record data. These modules can also be used to increase the meters temperature rating.



Standard 09 Computer



Remote mount module



Pulse output module



Modbus/Serial output module

Ancillary Devices

There is also a variety of display options that can be used to integrate the meter into your system of even future proof the system from any upgrades such as using micro-controllers and PLC's. Options to use simple scaled pulse outputs as well as complex RS232 and HART protocols are also available in variety of safe area & IECEx requirements.



FRT14 Series -
Available w/ 4-20mA Output



FRT40 Series
w/Scaled pulse output



Batch Controllers
available in Intrinsically safe

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