

1. General

1.1. Manufacture Background

- A. All magmeters furnished shall be manufactured by a registered ISO 9001 quality standard facility
- B. Meters supplied shall be from a US based company that has:
 - 1. Manufactured water meters for at least twenty-five (25) years
 - 2. Distributes all types and size magnetic flowmeters as indicated in these specifications

1.2. Type

- A. Meters shall be of the magnetic flow meter insertion type

2. Capacity

2.1. AG90

- A. 4" to 12" nominal pipe size insertion

2.2. Flow Range

Data table

Nominal Pipe Size	4"	6"	8"	10"	12"
Low Flow Cutoff GPM	19.3	43.11	77.1	120.5	173.5
Low Flow Cutoff LPS	1.22	2.72	4.86	7.6	10.95
Min GPM	64.3	144.6	257	401.6	578.3
Min LPS	4.1	9.1	16.2	25.3	36.5
Max GPM	578	1301	2313	3614	5204
Max LPS	36.5	82.1	145.9	228	328.3

0.5 - 4.5 m/sec (1.64 - 14.8 ft/sec) Low flow cutoff .15 m/sec (.49 ft/sec)

Product Details

2.3. Functions/Performance

- A. Ambient Temperature: 0° to 160° F (-17° to 72° C)
- B. Fluid Temperature: 32° to 200° F (0° to 93° C)
- C. Pressure rating: Suitable for use in water systems with up to 200 psi (14 bar) normal operating pressure
- D. Diagnostics: Self diagnostics with on screen display of faults
- E. Empty Pipe Detection: Hardware/software, conductivity based

- F. Low Flow Cutoff: The transmitter shall automatically drop the flow rate displayed and outputs to zero when the flow rate is below the minimum rated flow range for that meter size
- G. Low Battery Warning: The meter shall display a low battery warning when the batteries are running low

2.4. Physical

- A. Sensor Body: 316 Stainless Steel
- B. Electrodes: C276 Hastelloy
- C. Housing
 - 1. Meters shall be constructed of powder coated die-cast aluminum
 - 2. Designed to meet NEMA 6P (IP67) environmental conditions
- D. Electrode Cap: PVDF (Kynar)
- E. O-ring: EPDM

2.5. Display:

- A. Type: 128x64 dot-matrix LCD
- B. 5-digit rate and 8-digit total
- C. Field configurable digital indicator displaying rate volume units in liters, cubic meters, cubic feet, gallons, barrels (42 gallons), mega liters, million gallons, imperial gallons and mega imperial gallons
- D. Field configurable digital indicator displaying total units in gallons, gallons x 1,000, million gallons, liters, kilo liters, mega liters, barrels (42 gallons) cubic meters, cubic meters x 1,000, cubic feet, cubic feet x 1,000, million cubic feet, imperial gallons, imperial gallons x 1,000 and million imperial gallons
- E. Rate time units in second, minute, hour, day
- F. Bidirectional flow is standard with totals available in forward, reverse, net, batch forward and batch reverse
- G. Hinged protective display cover

2.6. Power

- A. One lithium 7.2V, 'D' size, battery pack
- B. Replaceable

2.7. Scaled Pulse Output

- A. Signal: current sinking pulse, isolated, 36 Vdc at 10mA max
- B. Pulse rates:
 - 1. User-scalable from 0.1 to 99,999.9 volume units/pulse
 - 2. Pulse width varies with output frequency, 150 pulse/sec max battery option

2.8. Accessories/ Documentation

- A. Factory calibration
 - 1. All meters shall be factory calibrated and a copy of the report for each meter shall be furnished with

the meter

- B. Internal data Logger (Optional)
 - 1. The meter shall have the ability to add a data logger for data collection for up to a two year time period
 - 2. Data intervals as low as 15 seconds
 - 3. Data storage option to stop the collection of data when memory is full or automatically wrap around
- C. Output cable (Optional)
 - 1. 6m (20 ft.) standard length polyurethane jacketed output cable
 - 2. Optional output cables available with lengths up to 60m (200ft.)

3. Calibration Accuracy

3.1. Calibration accuracy

0.5 - 4.5 m/s (1.64-14.76 ft/sec)	+/- 2% of reading
0.3 - 0.5 m/sec (0.98 - 1.64 ft/sec)	+/- (2% of reading + 0.25% of full scale)

Acceptable meters shall be Seametrics AG90 or approved equal.

9/7/17