CMS – COMPACTMAG Battery Powered Electromagnetic Flowmeters

Sizes: 25, 50 and 80mm

FEATURES

- **Resetable Totaliser for portable batching.**
- **Cumulative Totaliser for inventory.**
- **Instantaneous Flowrate display for flow monitoring.**
- **Flowrate display in l/s, l/m, or m^3/h.**
- **Total display in Litres or m^3 (3 decimal places).**
- **Measures any liquid with conductivity >20uS/cm.**
- **Virtually maintenance free, with no moving parts.**
- **Eliminates headlosses and need for filters.**
- **Robust polypropylene construction.**
- **Powered by 6 x AA batteries (1-3 year life).**
- **Easy access to replace batteries.**
- **Empty pipe detection.**
- **Flange clamp with BSP connectors.**
- **Inbuilt earthing electrodes**
- **Electronics sealed to NEMA 4X (IP66)**

The low cost CompactMag electromagnetic flowmeters are capable of operating over wide flow ranges. They are ideal for measurement of a range of liquids and ideal in agricultural, irrigation, wastewater and liquid transfer applications. With no moving parts and an obstruction-less bore, this type of flowmeter guarantees a high level of performance unaffected by contaminated materials present in the liquid. The uses are wide and far reaching.

The low cost AA batteries are easy replaceable when the automatic low-battery power warning is displayed.

The displayed engineering units can easily be changed via the front touchpad display.
The Flowrate and Totalisers read to 3 decimal places for precise measurements.

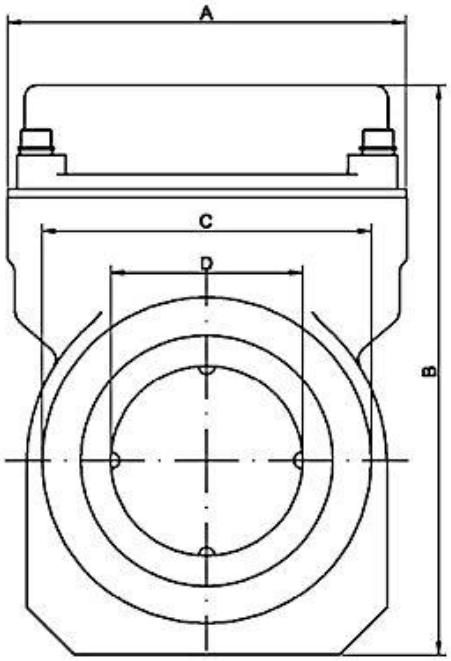
CompactMag is available in three sizes: 25, 50 and 80mm (1”, 2” and 3”).

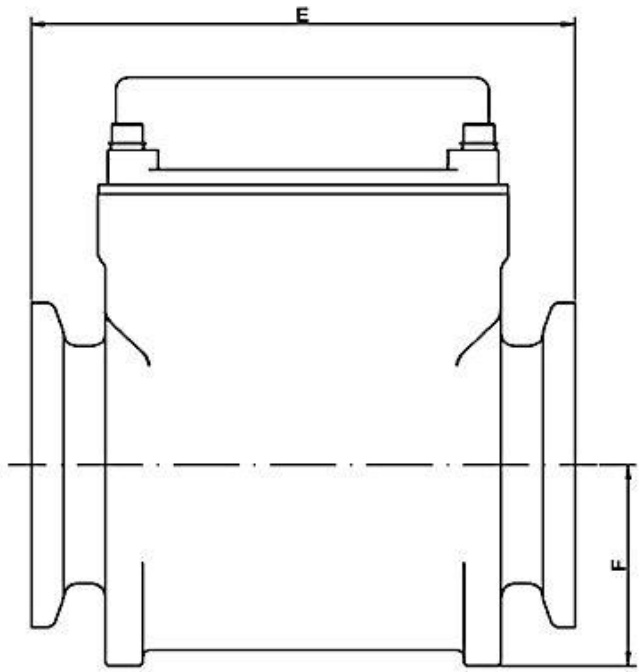
FLOWRANGE PERFORMANCE and SIZING TABLE

size		Minimum flowrate (L/min)			Maximum flowrate
mm	inches	±3%	±2%	±1%	Litres/min
25	1”	5.7	15	28	285
50	2”	22.6	65	113	1130
80	3”	58.8	150	294	2940

DIMENSIONS

size	Dimensions (mm)					
	A	B	C	D	E	F
25 mm	100	130	80	25.4	139.7	41.402
50 mm	100	150	82.55	50.8	139.7	51.562
80 mm	100	180	111	76.2	185	64.8



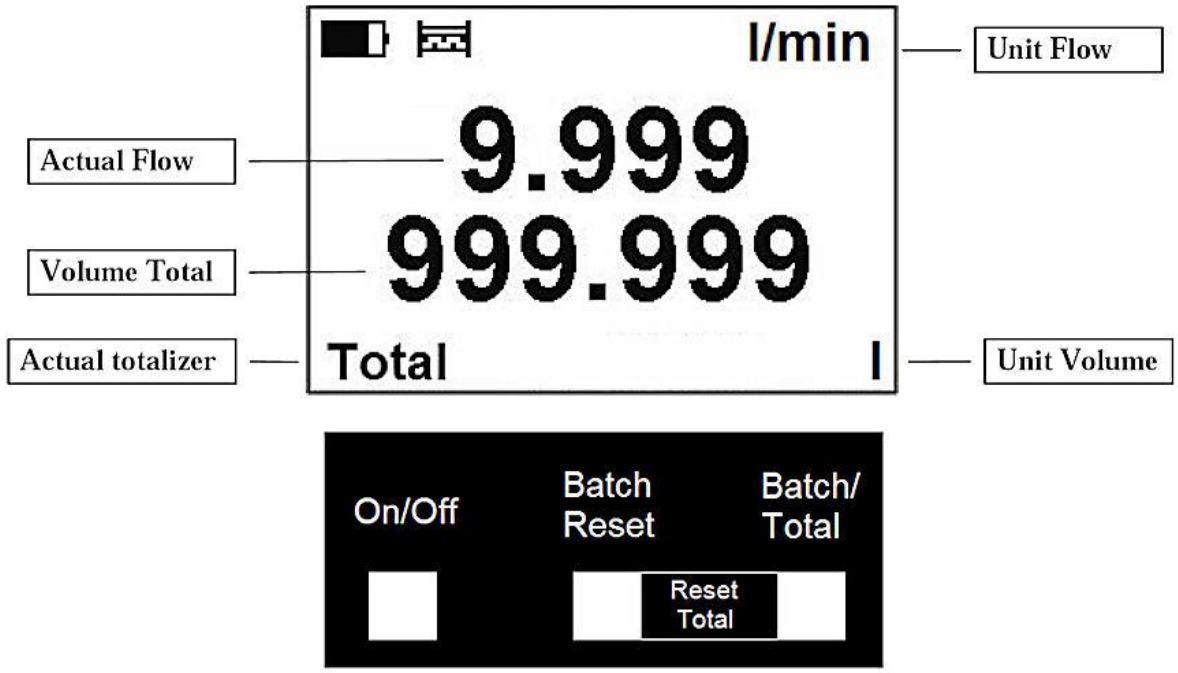


FITTING KIT

The fitting kit includes: 2 fitting parts + 2 clamps + 2 gaskets.

DISPLAY

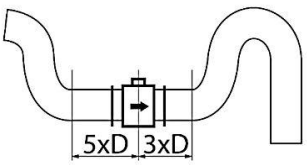
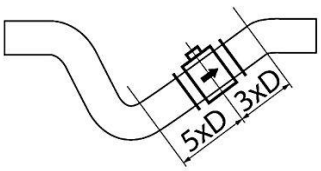
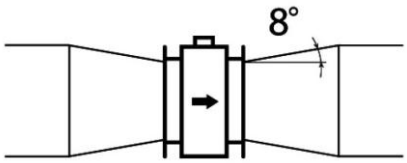
The CompactMag flowmeter consists of the motherboard, a graphical display, touch-buttons and sensor housing. Through the display and with help of the controls, you can see and change the Flow and Totaliser displays.



INSTALLATION

Sensor Installation

Proper installation is extremely important in order for the flowmeter to work correctly.
The sensor installation requirements must be adhered to at all times.

Horizontal standard mounting The sensor tube must always remain full. It is mandatory to install the sensor in a section of straight pipe with at least 5 times the pipe diameter before sensor and 3 times after sensor.		
Pipe reducers If the pipe diameter is not the same as the diameter of sensor, then pipe reducers can be used. So as not to lose accuracy of the measurement, the slope of reducers should not exceed 8º.		
Outdoors If the flowmeter is mounted outdoors, use a sun shade. This also protects the LCD.		

SPECIFICATIONS

Measurable media Minimum liquid conductivity Flow range	Conductive fluids ≥ 20µS/cm 0.1 to 10 m/s
Display	LCD 128 x 64 px graphical, sleep mode
Control	3 touch buttons
Displayed values	• Flow range (m3/h, l/s, l/m, US gal/min, UK gal/min), • Volume (m3, l, US Gal, UK Gal) • Total, Batch volume
Accuracy	• ±1% of reading from 100% to 10% of full scale • ±3% of reading from 10% of full scale to cut-off
Full scale	• 25mm (1”): 0.5 – 4.8 Litres/second (30 – 285 Litres/minute) • 50mm (2”): 1.9 – 18.9 Litres/second (114 – 1130 Litres/minute) • 80mm (3“): 5.0 – 49.0 Litres/second (300 – 2940 Litres/minute)
Power supply	6 AA alkaline batteries(1.2 – 1.6 VDC). Expected lifetime: 1 year.
Flow direction	Bi-directional measurement
Ambient temperature	-12 to 54 ºC (10 to 130 ºF)
Low flow cut-off	2% of full scale
Electronics protection	Nema 4X standard, IP66
Other features	• Test of excitation coils • Earthing through 3rd and 4th electrodes • Empty pipe detection - battery conservation
Excitation frequency	1/1.67 s
Samples per Average	4 excitations
Coils resistance	100 Ω
Working Pressure	1034 kPa (150 psi, 10.3 bar)
Bore size	25 (1”), 50mm (2”) or 80mm (3”)
Weight (unpacked)	• 25mm (1”) : 1.4 kg • 50mm (2”) : 2.5 kg • 80mm (3“) : 3.5 kg
Construction	• Polypropelene body and housing. • Stainless Steel 316 electrodes.
Connections	Flange clamps with BSP male connection ends

Due to continous product improvement, specifications are subject to change without notice.