

SAFMAG DCP Electromagnetic Flowmeter

- Wide flow measurement range: 0.1m/s – 10m/s
- Bi-directional flow measurement
- Flow totaliser – positive, negative and net
- Exceptional repeatability
- High accuracy (< 0.4% error)
- Flow rate and total displayed
- Backlit LCD display
- Profibus DP or Modbus RTU RS485 (options)
- Empty pipe detection

Example Applications

- Process control
- Pump protection
- Energy consumption and water conservation management

Example Liquids

- Water (effluent, hot water, chilled water, sea water, irrigation / raw water, potable water, etc)
- Chemicals (including aggressive media)
- Paper & Food Pulps
- Water & Sewerage Sludges



The SAFMAG DCP Pro Electromagnetic Flowmeter utilises DC pulse electromagnetic technology for the accurate measurement of conductive liquids in full pipes. The principle of measurement, Faraday's law of electromagnetic induction, is based on a theory that the voltage induced across an electrical conductor as it moves at right angles through a magnetic field is directly proportional to the velocity of that conductor through the field. This process is controlled and monitored by the signal converter/ display unit which returns the calculated data in user selected units of measurement.

Features & Specifications

Velocity Range	0.1 to 10m/s (0.34 - 30.5ft/s) Bi-directional	Empty pipe	Active empty pipe detection
Accuracy	±0.4% of Rate for velocities >0.5m/s (1.6ft/s), 0.025% of FS velocity <0.5m/s	Isolated Outputs	Two 4- 20mA (<650Ω) Two OCT / pulse (24V) Relay (220VAC – 0.27A, 24VDC – 2A) Profibus DP (Optional) Modbus RTU RS485 or RS232 (Optional)
Repeatability	±0.1% of flow rate > 0.5m/s	Power Supply	85VAC-265VAC 50/60Hz (7.5VA standard, 10VA Profibus DP) 12-30Vdc (<4W) e.g. 150mA @ 24V
Indication	Rate and Total (password resettable) 2 - Line 16 Character backlit LCD		
Units	Rate units: m/s, l/s, l/m, l/hr, m ³ /s, m ³ /m, m ³ /hr, ft/s, ft ³ /s, ft ³ /m, ft ³ /hr, USgps, USgpm, USgph, USmgd Total units: l, ml, cl, dl, m ³ , Ml, ft ³ , 10 ³ ft ³ , 10 ⁶ ft ³ , USG, 10 ³ USG, 10 ⁶ USG		
Programming	4 Key keypad		
Response Time	3 Selectable levels of damping		
Electronics enclosure	IP65 (NEMA13) 138 x 178 x 73mm HxWxD (5" x 7" x 3")		
Temperature limits	Electronics -10 to 50°C (14 to 122°F) Flow sensors from		
Cable length	100m max, >100m consult factory		
Model No.	DCP-4 85-265VAC 50/60Hz DCP-4-PROFI-DP or DCP-4-MODBUS		
Standards	ISO 6817:1992 Magflow design		
Calibration	3 Point as standard, 5 point optional		
Sensors	Full bore, Flanged and wafer to suit need		



DIMENSIONS (in mm) flowtube without integral converter or terminal box				
Meter size NB	Dimensions			
	A		B	C
	MS	MX		
25	-	200	200	160
40	220	200	210	170
50	300	200	245	205
65	300	200	275	235
80	300	200	275	235
100	300	250	300	260
125	300	250	300	260
150	420	300	355	315
200	420	350	415	375
250	480	450	470	430
300	480	500	525	485
350	580	550	585	545
400	620	600	645	605
450	680	650	705	665
500	720	700	775	735
600	820	800	890	850
700	920	900	1020	980
750	980	950	1080	1040
800	1020	1000	1140	1100

MX 'A' Dimension size 400NB and smaller as ISO/DIS 13359 Standard



