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BATTERY OPERATED ELECTROMAGNETIC FLOW METER

Description

Manas have now introduced a new type of Battery Operated Electromagnetic Flow meter series. This sensor works on Faraday's law of electromagnetic induction. The new type of flow transmitter is SS1021. It is available with integral or remote version of transmitter. Battery Operated Electromagnetic Flow meter is specifically designed where Electric supply is not available and accurate flow measurement is essential.

Features

- Battery Operated (Battery Life 5 Years)
- Sizes Available from DN10 to DN500
- Highly Accurate and extremely Linear
- Microvolt signal Proportional flow rate from primary flow sensor
- Various types of Liner and Earth electrodes, both options are available
- Empty tube detection is also provided

Technical Specifications

Meter Size	: DN 10 – DN 500	
Pressure	: Upto DN80 - PN40 From DN100 to DN200 - PN 16 From DN250 to DN500 - PN10	
Media	: For HR and NE	- 0 - 90°C
Temperature	: PTFE	- 0 - 150°C
	: PFA	- 0 - 200°C
Ambient	: 0 - 50° c	
Temperature Material	: Pipe	: SS304 (non magnetic)
	: Liner	: Hard Rubber / PTEF / PFA
	: Electrodes	: SS316 / SS316L / Hastelloy C or other (as per requirement)
	: Coil Housing	: MS / CS PU Painted / SS304 / SS316
	: Flanges	: MS/CS / SS316 / SS304 SS316 L
	: Flange Standard	: ANSI / DIN / BS Flanges (As per requirement)



Type of Transmitter Model - SS1021

Min. Media conductivity	: 5 micro-Siemens per cm ($\geq 5 \mu\text{S/cm}$)
Output	: Pulsed DC output/4-20 mA (Optional) / RS485 Communication (Optional)
GSM Facility	: Optionally Available with GSM modem
Local Display	: 16 characters x 2 lines LCD Display without backlight for instantaneous Flow rate, Totalizer, Engg. units, Fault Message, etc.
Accuracy	: $\pm 1\%$ of Actual Flow Rate between 100% to 10% of calibrated range
Flow Velocity	: 0.1m/s to 10m/s
Power Supply	: Four lithium 3.6V replaceable (Battery Operated) Additional 2 lithium 3.6V replaceable batteries for Communication Module. (5 years battery life)*
Ingress Protection	: IP68 for Primary Flow Sensor, IP67 for Flow Transmitter

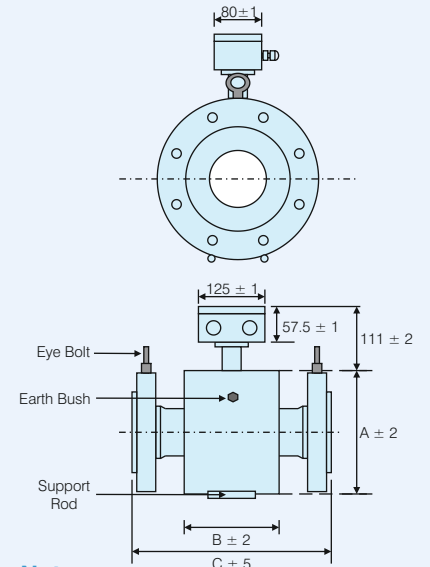
Flow Rate Table

Flow Rate at V = 1m/s

DN	M ³ /Hr	LPM	LPS
15	0.636	10.602	0.176
20	1.130	18.849	0.314
25	1.767	29.452	0.490
32	2.895	48.254	0.804
40	4.523	75.398	1.256
50	7.068	117.899	1.963
65	11.945	199.098	3.318
80	18.095	301.592	5.026
100	28.274	471.238	7.853
125	44.178	736.310	12.271
150	63.617	1060.287	17.671
200	113.097	1884.955	31.415
250	176.714	2945.243	49.087
300	254.469	4241.150	70.685
350	346.356	5772.608	96.210
400	452.389	7539.816	125.66
450	572.555	9542.580	159.044
500	706.858	1178.960	196.343

Table for Meter Dimensions (mm)

DN (mm)	A	B	C
10,15	134	78	200
20	134	78	200
25	112	110	200
32	121	100	200
40	131	105	200
50	156	99	200
65	181	92	200
80	194	89	200
100	232	135	250
125	258	135	250
150	283	170	300
200	347	205	350
250	410	240	400
300	486	290	500
350	539	290	550
400	550	315	600
450	600	315	600
500	650	315	600



Note

- All dimensions are in mm
- Dimensions are with ANSI B 16.5, class 150 flanges with terminal box
- Production Standard Flanges :
 - ♦ ANSI B 16.5, class 150 up to DN350
 - ♦ IS1538 for Above DN400

ORDERING INFORMATION

Sample code explained: DN 40 - HR - SS316 - ANSI150 - MS/CS - SS304 - SS1021 - RS4 - INT - 3.6 V

DN 40	Flow Meter Size	ANSI150	Flange / End Connection Standards	SS1021	Transmitter Type
	DN 15 : 1/2" DN 125 : 5" DN 20 : 3/4" DN 150 : 6" DN 25 : 1" DN 200 : 8" DN 32 : 1 1/4" DN 250 : 10" DN 40 : 1 1/2" DN 300 : 12" DN 50 : 2" DN 350 : 14" DN 65 : 2 1/2" DN 400 : 16" DN 80 : 3" DN 450 : 18" DN 100 : 4" DN 500 : 20"		ANSI 150 : ANSI150 IS1538 : IS1538 Any Other : ZZ		SS1021 : SS1021
		MS/CS	Flange / End Connection Material	RS4	Communication Facility
			Mild/Carbon Steel : MS/CS Stainless Steel 304 : SS304 Stainless Steel 316 : SS316 Any Other : ZZ		No Communication : NA RS 485 : RS4
				INT	Transmitter Mounting
					Integral : INT Remote : RMT
HR	Liner Material	SS304	Body Material	3.6 V	Power Supply
	Hard Rubber : HR PTFE : PTFE PFA : PFA Any Other : ZZ		Mild / Carbon Steel : MS/CS Stainless Steel 304 : SS304 Stainless Steel 316 : SS316 Any Other : ZZ		Battery Operated : 3.6 V
SS316L	Electrode Material				
	SS316L : SS316L Hastelloy : HAST C Any Other : ZZ				

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