

Benefits & Features

- No Moving Parts
- Virtually no pressure drop
- Minimal maintenance
- Wide Range of Nominal Diameters
- Broad Selection of lining and Electrode.

Application

- Agricultural
- Food & Beverage
- Chemical
- Pulp & Paper
- Water & Waste water

Working Principal

Faraday's law of induction states that a conductor moving in a magnetic field induces an electrical voltage. With a magmeter, the flowing fluid is the moving conductor.

The constant-strength magnetic field is generated by two field coils, one on either side of the measuring tube.

Two measuring electrodes on the inside wall of the tube are at right angles to the coils and detect the voltage induced by the fluid flowing through the magnetic field. The induced voltage is proportional to flow velocity and thus to volume flow. The magnetic field is generated by a pulsed direct current with alternating polarity. This ensures a stable zero point, and makes the measurement insensitive to influences from multiphase or inhomogeneous liquids, or low conductivity



Highlights

- Quick and easy to install and operate
- Large, illuminated graphic display with intuitive operation.
- Multiple user language as standard
- Outstanding price/performance Ratio
- Extremely Quick signal conversion
- A viable Display: Remote Type
- Integral Type Display

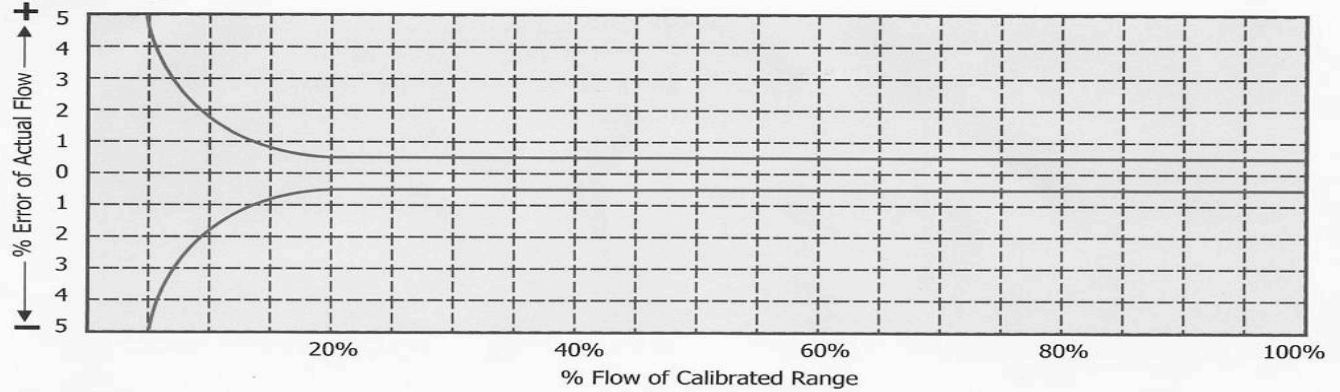
Technical Specification

Electromagnetic Flow meter E- Catalogue

Media	:	Liquids (Conductive)
Basic Application	:	Water, Wastewater, Chemical, Process, Food & Beverage.
Conductivity	:	≥ 5 µs/cm Min
Viscosity	:	200 cp max
Recommended flow rate	:	Min./max. full scale value(v ~ 0.3 or 10 m/s) velocity
Nominal Size	:	15 NB to 600 NB (Rubber:15 to 600 NB & PTFE: 15 to 300 NB)
Excitation	:	Pulsed DC coil
Type of Output	:	1) 4 to 20 mA DC, Isolated 2) Pulse
Display	:	16 x 2 LCD - 4 digit for Flow Rate & 8 digit for Totalised Flow
Calibration Range	:	As per requirement or (Factory Standard Calibration)
Accuracy	:	+/- 0.5% F. S
Linearity	:	+/- 0.5%
Repeatability	:	+/- 1%
Process Temperature	:	Rubber: 85 °C Max & PTFE: 100 °C Max
Process Pressure	:	10 kg/cm ² max
Material of construction	:	Lining - Rubber / PTFE (Teflon) Flange - CS / MS / SS Electrode - SS 316L / Hastalloy C / Platinum Coil Housing - MS / SS 304
Power Supply	:	1) 24 V DC, External 2) 90 - 250 V AC, 50 Hz
Power Consumption	:	< 10 VA
Isolation	:	1.4 KV between Input, Output & Power Supply
Response Time	:	< 100 mSec
Temperature Coefficient	:	+/- 0.1% per °C
Transmitter Enclosure	:	IP-65 Certified
Process Connections	:	ASA 150 flanged, as per table B 16.5
Mounting	:	In-Line (Horizontal OR Vertical)
Operating Conditions	:	Temperature 0 to 55 °C / Humidity 5 to 95% non condensing

SERIES	Line Size	Process Connection		Bearings		Rotor		Output		Electronics		Remote Cable Length	
ZE-100	50 mm	04	Triclover	08	Other	08	Other	03	Open Collector	02	Remote	02	10 Mtr
		03	MS Flange	02	V Jewel	02	17.4 PH	02	Pulse	01	Integral	01	5 Mtr
		02	Flanged	01	Tungsten carbide sleeve	01	SS 410	01	4-20 mA	01	Integral	01	5 Mtr
	15 mm to 150 mm	01	Threaded	01	Tungsten carbide sleeve	01	SS 410	01	4-20 mA	01	Integral	01	5 Mtr
		03	MS Flange	08	Other	08	Other	03	Open Collector	02	Remote	02	10 Mtr
		04	Triclover	08	Other	08	Other	03	Open Collector	02	Remote	02	10 Mtr
		09	None	03	25 Mtr								

Error Diagram :



Flow Rate Table Flow Rate at V = 1 m/Sec.

DN	m ³ /Hr	LPM	LPS	DN	m ³ /Hr	LPM	LPS
10	0.282	4.711	0.078	125	44.18	736.198	12.270
15	0.636	10.601	0.176	150	63.61	1060.125	17.668
20	1.130	18.846	0.314	200	113.08	1884.667	31.411
25	1.766	29.447	0.490	250	176.69	2944.792	49.080
32	2.909	48.247	0.804	300	254.43	4240.500	70.675
40	4.523	75.386	1.256	350	346.31	5771.792	96.197
50	7.068	117.791	1.963	400	452.32	7538.668	125.645
65	11.944	199.100	3.317	450	572.47	9541.980	159.036
80	18.092	301.546	5.025	500	706.75	11779.169	196.321
100	28.270	471.166	7.852	600	1017.72	16962.003	282.702

Ordering Information

POWER SUPPLY

- 1) 240 +/- 15% V AC 50 Hz
- 2) 110 +/- 15% V AC 50 Hz

FLOW METER SIZE

- 1) DN 10 11) DN 125
- 2) DN 15 12) DN 150
- 3) DN 20 13) DN 200
- 4) DN 25 14) DN 250
- 5) DN 32 15) DN 300
- 6) DN 40 16) DN 350
- 7) DN 50 17) DN 400
- 8) DN 65 18) DN 450
- 9) DN 80 19) DN 500
- 10) DN 100 20) DN 600
- 21) Any other

LINER MATERIAL

- 1) Teflon (PTFE)
- 2) Neoprene
- 3) Hard Rubber
- 4) Polyurethane
- 5) Any other

ELECTRODE MATERIAL

- 1) Stainless Steel 316
- 2) Hastelloy C
- 3) Tantalum
- 4) Titanium
- 5) Platinum
- 6) Any other

FLANGE / END CONNECTIONS

STANDARDS

- 1) DIN PN 40
- 2) DIN PN 16
- 3) DIN PN 10
- 4) ANSI 300
- 5) ANSI 150
- 6) Tri-clamp
- 7) Any other

FLANGE / END CONNECTIONS

MATERIAL

- 1) Carbon Steel
- 2) Stainless Steel 304
- 3) Stainless Steel 316
- 4) Any other

COIL HOUSING

- 1) Carbon Steel
- 2) Stainless Steel 304
- 3) Stainless Steel 316

FLOW TRANSMITTER

- 1) Integral without Display
- 2) Integral with Display
- 3) Remote with Display
- 4) Remote without Display

OUTPUT SIGNAL

- 1) 4-20 mA DC
- 2) 0-20 mA DC

PULSED OUTPUT (Optional)

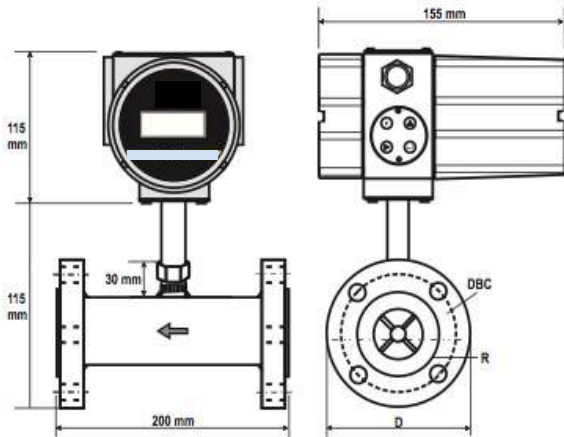
- 1) Low Pulse output
- 2) High Pulse output
- 3) Nil

COMMUNICATION PORT (Optional)

- 1) RS - 232
- 2) RS - 485

- Notes :**
- 1) Flowmeter is supplied with 2 Nos. of SS 316 Earthing Rings of 3 mm thickness.
 - 2) Remote Flow Transmitter is supplied with 2" Pipe Mounting Kit and 10 meter each electrode signal cable and coil supply cable.
 - 3) Installation location should be such that the Flowmeter will always remain full with liquid.
 - 4) A minimum 5D upstream and 3D downstream straight lengths should be maintained at installation location. where D is the pipe diameter. The Flowmeter installation location should be free of bends, elbows, tees, valves etc.

DIMENSIONAL DETAILS

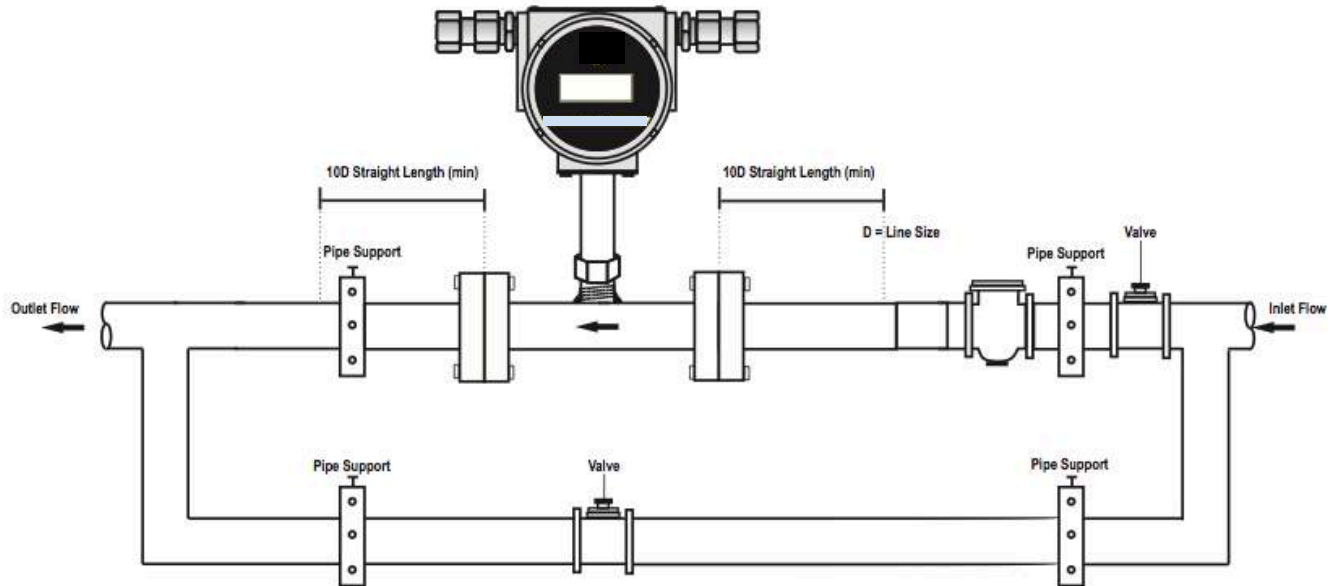


LINE SIZE SELECTOR CHART WITH RESPECT TO FLOW RANGE

Meter Size	Flow Range		Flange Details ANSI 150 (B16.5)				
	m ³ /hr	LPM	D	C	R	DBC	d
15 NB	0.4 to 4.0	6.6 to 66.6	88.9	11.2	35.1	60.5	15.8
20 NB	0.8 to 8.0	13.3 to 133.3	98.6	12.7	42.9	69.9	15.8
25 NB	1.6 to 16.0	26.6 to 266.6	108.0	14.2	50.8	79.3	15.8
40 NB	3.4 to 34.0	56.6 to 566.6	127.0	17.5	73.2	98.6	15.8
50 NB	6.8 to 68.0	113.0 to 1133.0	152.4	19.1	90.2	120.7	15.8
80 NB	13.5 to 135.0	225.0 to 2250.0	190.5	23.9	127.0	152.4	19.1
100 NB	27.0 to 270.0	450.0 to 4500.0	228.6	23.9	157.2	190.5	19.1
150 NB	55.0 to 550.0	916.0 to 9166.0	279.4	25.4	215.9	241.3	22.4

D : OD of Flange R : Dia of Raised Face No. Of Holes : 4 for 1/2" to 3" & 8 for 4" to 6"
C : Thickness of Flange DBC : Dia of Bolt Circle d : Size of Holes

INSTALLATION DETAILS



Contact Our Flow Meter Measurement Specialists For Advice on you application. (+919760158775)

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