TANSA EQUIPMENTS PVT. LTD. AN ISO 9001:2008 COMPANY

Electromagnetic Flowmeter - Full Bore

MODEL - SROAT 1000 PLUS

INTRODUCTION :

TANSA has now introduced a new type of primary flow sensor & smart flow transmitter in their electromagnetic flow-meter series. This sensor works on the Faraday's law of electromagnetic induction. The meter is true volume measuring meter. The measurement is independent of viscosity, density, dissolved / undissolved solids, pressure or temperature of the flowing liquid as long as it maintains certain minimum conductivity. Various types of liner & electrode materials are available as per application requirements.

The new sensors are more compact in size & more sensitive. Earth ring or earth electrode, both option are available. Empty tube detection is also provided.

PRINCIPLE OF OPERATION :

Faraday's law of electromagnetic induction states that, emf is generated across a conductor moving in a magnetic field. This emf is directly proportional to the flux density, velocity of conductor & length of the conductor. This principle is used for flow measurement through electromagnetic flowmeter. The flowing liquid itself is a conductor & its average velocity is the velocity of conductor.

E = B.V.D.
Where
E = Induced emf proportional to velocity.
B = Magnetic flux Density
V = Average velocity of the media
D= Distance between two electrodes or
Practically the diameter of the flow sensor

The flux density & diameter of the flow sensor are fixed for a given combination of the flow meter. The emf becomes proportional to average velocity only & in turn the volumetric flow rate.

PRINCIPAL ADVANTAGES :

1. Wide range of sizing DN 25 to DN 350 (Higher sizes are available but model is Mega-Sroat)
2. Manufactured in conformity with quality system ISO 9001:2000
3. Factory calibrated on accurate test rigs as per ISO 4185

4. New Feature : Empty tube detector electrode.
5. Option of earth electrode or earth ring is available.
6. End Connection:- Flange type available in various standards viz .ANSI, DIN, BS etc.
7. Various types of liners viz. Hard Rubber, Soft Rubber, Neoprene, PTFE , PFA.
8. Typical Ingress Protection, IP68 for flow sensor & IP65 for transmitter.
9. Time tested pulse D.C. Technique for flow Measurement.
10. Isolated comm. Port, digital & analog outputs.

APPLICATIONS :

1. Sewage Treatment :
   Waste water measurement, Sluge measurement etc.
2. Effluent Treatment :
   Untreated as well as treated effluent measurement
3. Industrial Utility Management :
   Measuring water consumed by each plant.
   Water audit.
4. Water Supply Schemes :
   Raw water as well as treated water measurement.
5. Sugar Industries & Distilleries :
   Measurement of imbibition water, raw juice etc
   Measurement of Spent wash, Fermented wash molasses etc.
6. Automobile Industries :
   Flow measurement of coolant,for radiator efficiency.
7. Chemical Industries :
   Measurement of acidic, alkaline chemicals, slurries with & without dissolved solids.
8. Food & Beverages :
   Special end connection like sms union, triclover clamp, fully SS body, PTFE or PFA liner available.
9. Boiler Feed Water Measurement.

TANSA

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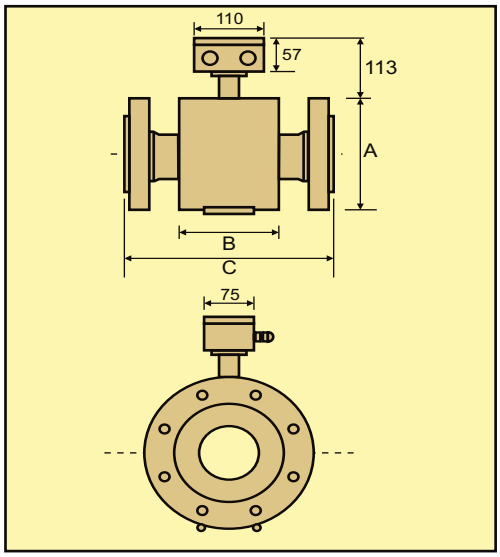
METER DIMENSIONS (mm) :

Table for Meter Dimensions SROAT 1000 *Plus*(mm)			
DN(mm)	A	B	C
25	108	100	200
32	117	100	200
40	127	105	200
50	152	99	200
65	177	92	200
80	190	89	200
100	228	135	250
125	254	135	250
150	279	170	300
200	343	205	350
250	406	240	400
300	482	290	500
350	533	290	550



Note :

1. All dimensions are in mm.
2. Dimensions are with ANSI B 16.5, Class 150 Flanges, with terminal box.
3. Dimensions 'C' is without earth rings.
4. Standard flanges
   ANSI B 16.5, Class 150 - up to DN 150
   Bs10, Table F - from DN 200 & onwards.

ORDERING INFORMATION :

Flow Meter Size	
MS 01 : DN 25	MS 08 : DN 125
MS 02 : DN 32	MS 09 : DN 150
MS 03 : DN 40	MS 10 : DN 200
MS 04 : DN 50	MS 11 : DN 250
MS 05 : DN 65	MS 12 : DN 300
MS 06 : DN 80	MS 13 : DN 350
MS 07 : DN 100	

Liner Material
LM 01 : Teflon (PTFE)
LM 02 : Neoprene
LM 03 : Soft Rubber
LM 04 : Hard Rubber
LM 05 : PFA
LM 06 : Any Other

Electrode Material
EM 01 : Stainless Steel 316
EM 02 : Stainless Steel 316 L
EM 03 : Hastelloy C
EM 04 : Tantalum
EM 05 : Titanium
EM 06 : Any Other

Flange / End Connection Standards
FS 01 : DIN PN 40
FS 02 : DIN PN 25
FS 03 : DIN PN 16
FS 04 : ANSI 300
FS 05 : ANSI 150
FS 06 : BS 10, Table F
FS 07 : BS 10, Table D

Flange / End Connection Material
FM 01 : Carbon Steel
FM 02 : Stainless Steel 304
FM 03 : Stainless Steel 316
FM 04 : Stainless Steel 316 L

Body Material
BM 01 : Mild Steel
BM 02 : SS 304
BM 03 : SS 316
BM 03 : SS 316 L

Flow Transmitter
FT 01 : Integral
FT 02 : Remote, Wall mounting
FT 03 : Remote, 2" Pipe mounting

Power Supply
01 : 85 VAC to 265 VAC, 50 Hz
02 : 24 VDC ±10%

SS 1001	MS 01	LM 03	EM 03	FS 02	FM 02	BM 02	FT 02	02

Sample Order Code

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