

TS2000-IFM

INSERTION TYPE ELECTROMAGNETIC FLOW METER - SWITCH

Features

- Compact Insertion Flowmeter
- Suitable for Conductive Liquids
- No Pipe Cutting or Shutdown Required
- Suitable for line sizes ranging from DN 40 to DN 300
- Typical Accuracy of $\pm 0.5\%$ of F.S.
- Protection Class: IP-68
- Local LCD Display for Real-time Flow Monitoring
- Robust SS-316 Construction ensure durability and resistance to corrosion



Technical Specifications

Performance Characteristics	
Measuring principle	Electromagnetic flow measurement
Media	Liquid (Conductive)
Conductivity	$> 5 \mu\text{S/cm}$
Viscosity	200 cp max
Line Size	40 NB to 300 NB
Accuracy	$\pm 0.5\%$ of F.S.
Response Time	1 Sec
Display	Backlight LCD - 6 Digit for Flow Rate, 8 Digit for Flow Totalizer
Process Conditions	
Process temperature	200°C max
Process pressure	16 kg/cm ² max
Process Connection	
Mounting Type	Insertion Type
Process Connection	1" BSP Threaded
Ambient conditions	
Temperature	20°C to 70°C
Humidity	5 to 95% non-condensing
Output Signal	
Output 1	4 to 20mA
Output 2	Pulse - Open Collector Type (Optional)
Alarm or Relay Output	1 Relay Output (Optional)
Communication Output	RS-485 MODBUS RTU (Optional)

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Technical Specifications

Protection Class	
Electronic Protection	Weather Proof IP-68
Sensor/Flow Tube Protection	Weather Proof IP-68
Electrical Connection	
Connector	M12 Connector
Power supply	
Voltage supply range	18-30 V DC
Power consumption	< 5 VA
Material of Construction	
Electrode Materials	SS-316L
Retractable Assembly	SS-316
Wetted Parts	SS-316
Sensor Rod	SS-316
Electronics Enclosure	SS-316

Assembly Overview

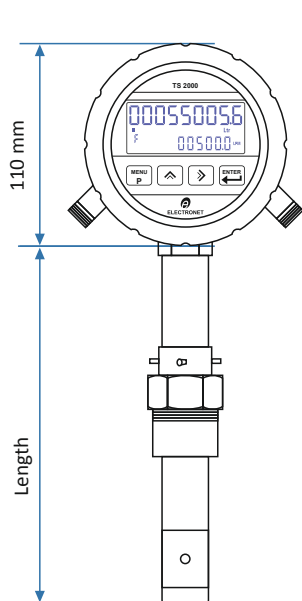


Fig. 1 Front View

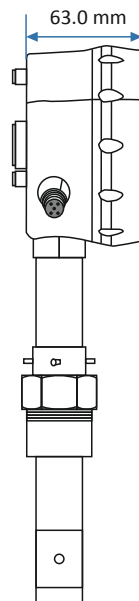


Fig. 2 Side View

TS2000-IFM	
SIZE	"L" DIMENSION
SIZE 1	200
SIZE 2	250
SIZE 3	300
SIZE 4	350
SIZE 5	400

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Installation Drawing

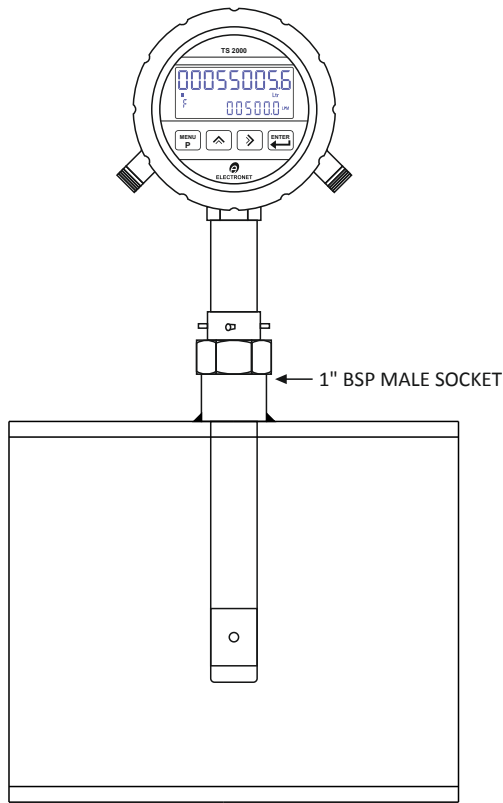


Fig.3

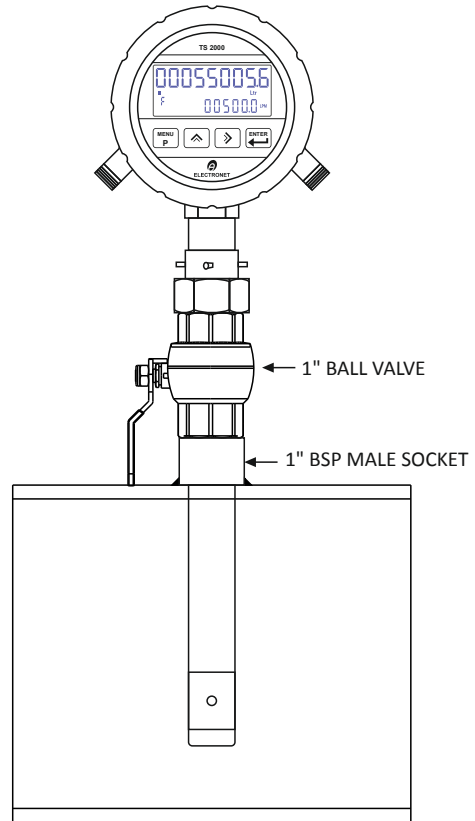


Fig.4

Connection Details

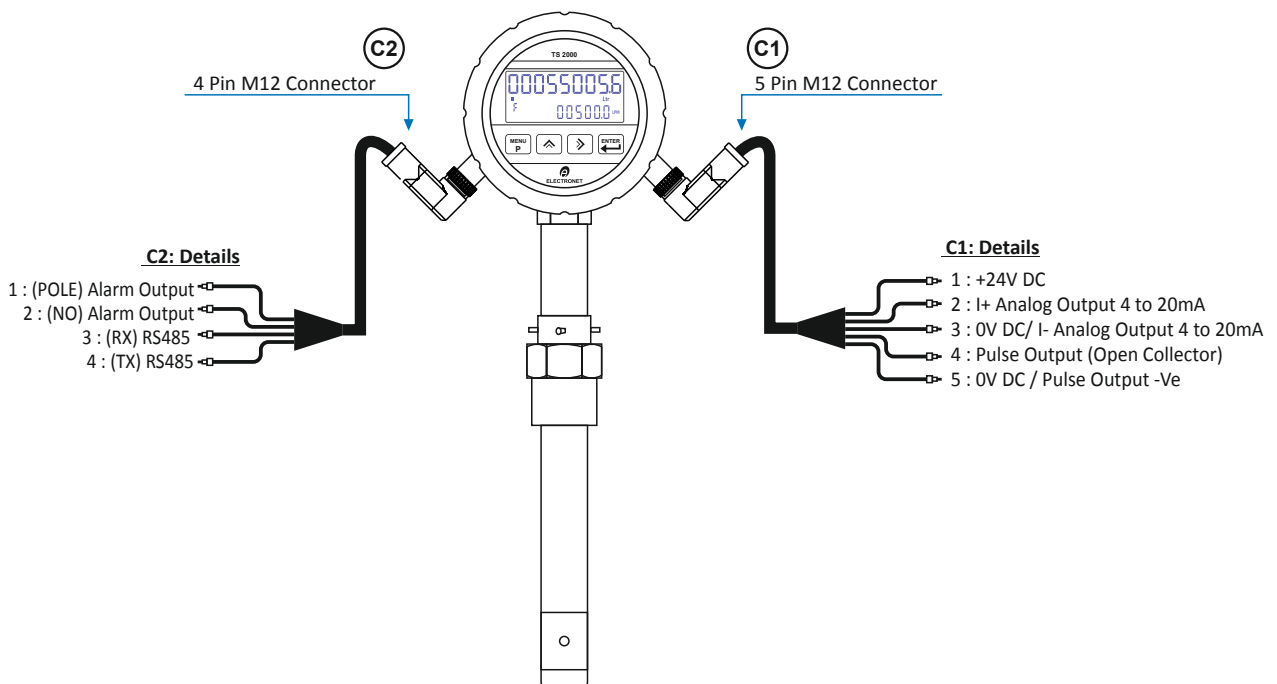


Fig. 5 Front View

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Line Size		Flange To Flange Distance	Flow Range (m ³ /Hr)			
Inch	NB		Velocity 0.3m/s	Velocity 2.5m/s	Velocity 6m/s	Velocity 10m/s
1½"	40	200	1.36	11.31	27.143	45.24
2"	50	200	2.12	17.67	42.4115	70.69
2½"	65	200	3.58	29.86	71.675	119.46
3"	80	200	5.43	45.24	108.573	180.96
4"	100	250	8.48	70.69	169.646	282.74
5"	125	250	13.25	110.45	265.071	441.79
6"	150	300	19.09	159.04	381.703	636.17
8"	200	350	33.93	282.74	678.584	1130.97
10"	250	450	53.01	441.79	1060.28	1767.15
12"	300	500	76.34	636.17	1526.81	2544.69

Note : Flange to flange distance (FD) Tolerance : 1) 1½"(40NB) to 6"(150NB) : +/-3mm 2) 8"(200NB) to 12"(300NB) : +/-5mm

- All dimensions are in 'mm'
- For dimensions of line size above 300NB, please consult factory.
- Typical mounting dimensions are for reference only.
- Wet Calibrated at IEC/ISO/EN17025 Accredited Calibration Rig.
- Flow meter should be selected with the help of Nomograph (recommended full scale velocity).

Ordering Information of Transmitter

Sample Order Code: TS 2000 IFM-TX-A1-B1-C1

Parameter	Code	Description
TX Transmitter Electronics	TX	TS2000-IFM
A Alarm / Relay Output	A1	One Relay Output
	AX	NA
B Communication Output	B1	RS-485 (only In Case of 24 VDC Supply)
	BX	NA
C Pulse Output	C1	Open Collector Pulse output
	CX	NA

Note: ▪ Due to our continuous product revisions, design specification and model numbers are subject to change without notice.
 ▪ Accuracy defined at Lab Conditions.
 ▪ For other requirement please consult factory.
 ▪ This product is meant for laboratory/Process application only & not for custody transfer application.

Ordering Information of Flow Tube

Sample Order Code: TS 2000 IFM-FT40-N1

Parameter	Code	Description
FT Flow Tube	FT 40	40NB
	FT 50	50NB
	FT 65	65NB
	FT 80	80NB
	FT 100	100NB
	FT 125	125NB
	FT 150	150NB
	FT 200	200NB
	FT 250	250NB
	FT 300	300NB
N Insertion Flow sensor Installation	N1	Fixed Inline
	N2	Hot Retractable



Office & Manufacturing Unit

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