



# ROTAMETER

## Metal Tube (Magnetic)

Variable Area Flowmeter

### OPERATING PRINCIPLE

Metal Tube Rotameter is basically a variable area flowmeter. The differential pressure across the annulus area is constant and the Flowrate is measured as a function of the position of annulus area created by float position. The position of the float is sensed by a magnet and indicated On the dial in terms of flow rate.

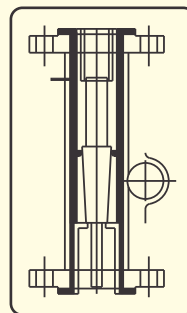


### STANDARD FEATURES

- \* Housing / Enclosure: SS Buffed Finish
- \* Heavy Duty Design with Maximum Visibility
- \* Joint less PTFE / PP Cladded Body
- \* Flow Range Between 25 to 6300 LPH
- \* No Threads in Body, Avoids Corrosion
- \* Face to Face Distance: 550mm
- \* MOC of Wetted Parts: SS 316 / SS 304
- \* Accuracy: 1.6% of Full Scale
- \* Line Size from 15 NB To 100 NB
- \* Suitable For In-Line Installation
- \* Measuring Span - 1:10
- \* Magnet :- Alnico
- \* Easy To Maintain
- \* Angular Scale

Measuring Range in LPH of H<sub>2</sub>O @ T :- Ambt/Pr : - Atm

NB	Model No	With PTFE float LPH	With SS 316 Float LPH	Max Pres Drop MMWC	Test Press kg/cm <sup>2</sup>
15	TM-1	-	2.5-25	1000	20
	TM-2	2.5-25	4-40		
	TM-3	4-40	6.5-65		
	TM-4	6.5-65	10-100		
	TM-5	10-100	16-160		
	TM-6	16-160	25-250		
	TM-7	25-250	40-400		
	TM-8	40-400	63-630		
25	TM-9	63-630	100-1000	1000	20
	TM-10	100-1000	160-1600		
	TM-11	160-1600	250-2500		
	TM-12	250-2500	400-4000		
50	TM-13	400-4000	630-6300	1200	20
	TM-14	630-6300	1000-10000		
	TM-15	1000-10000	1600-16000		
80	TM-16	1600-16000	2500-25000	1500	20
	TM-17	2500-25000	4000-40000		
100	TM-18	4000-40000	6300-63000	1500	20



PTFE/PP - single pc (no joint) cladding  
100% spark proof

#### DATA REQUIRED FOR OFFER

- 1) Tag No.
- 2) MOC Of Wetted Parts
- 3) Type Of Connection
- 4) Flang Size / Rating
- 5) Fluid / State
- 6) Operating Conditions
  - A) Fluid Density / SPGR
  - B) Pressure
  - C) Temperature
  - D) Viscosity.
- 10) Measuring Range



## Tansa Equipments Pvt. Ltd.

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We also manufacture Glass Tube, Purge type, Acrylic body, by - Pass Rotameters & Orifice Assy.

● Due to continuous development specifications are subject to change without prior notice.



CAT No. - MTR 1-010412

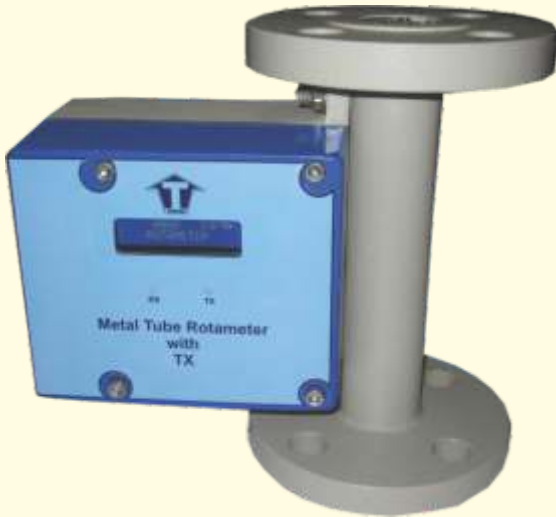


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## Metal Tube (Magnetic) Variable Area Flowmeter

### OPTIONAL

#### 1) Metal Tube Rotameter with Transmitter



#### FEATURES

- Zero Cut-off** - 1%, 2%, 5%, 10% – Programmable.
- Accuracy** - +/- 2 % of Full Scale for Flow Rate as well as Totalization. from 10% to 100% Input
- PC Communication**
- [ Optional ] - Type RS232 or RS485  
Protocol MODBUS RTU
- Baud rate** - 19200 / 9600 / 4800 / 2400 – Programmable.
- Parity** - Even / None – Programmable.

#### INTRODUCTION

The Metal Tube Rotameter Transmitter is a micro-controller based flow meter having 16 x 2 LCD display digital indications for instantaneous flow rate and Totalized flow. 1<sup>st</sup> row show the instantaneous flow rate and 2<sup>nd</sup> row show totalized flow. Unit offers facilities for accurate flow totalisation. Units are programmable and visible on LCD display.

The user can set various parameters through a front panel with easy to operate keypad. These parameters remain in the memory even if there is a power failure. Each of the modes in which the instrument can be programmed to operate are PASSWORD protected.

#### GENERAL SPECIFICATIONS

- Mounting** - Integral with Rotameter
- Enclosure** - Al Die cast.
- Power Supply** - For Integral – 24 Vdc ± 10%, 4.8VA  
For Remote – 85 to 265 V ac single phase 50Hz
- Model Number** - MRT - L (METAL TUBE ROTAMETER with 16 x 2 LCD Display)  
MRT-D (METAL TUBE ROTAMETER with 7 Segment LED Displays)  
MRT-D-Remote.

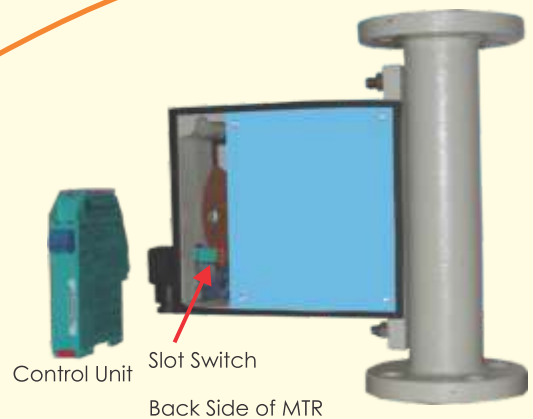
#### INPUT / OUTPUT SPECIFICATIONS

- Input** - Angular displacement of fork with respect to flow
- Standard Output** - 4 – 20 mA dc in max. 600 load, Isolated. Proportional to Flow Rate.
- Optional Output** - PC communication OR Pulse Output (1 to 120000 pulses per hour)

#### 2) Metal Tube Rotameter with Flow Switch (Namur)

##### Slot switch (namur)

model no	SJ5 - N
Mounting	Mounting on Magnetic Rotameter ( Factory Mounted )
Slot distance	5mm
Supply voltage	8 vdc (through isoiation amplifier)
Out put	Namur 2 wire.
Switch setting	At any point over the range



##### With Flow Switch :

##### Control unit for above switch

1. Model no	WE77-EX 1/2 for namur switches
2. Type	Switching amplifier for namur switch
3. Mounting	Din rail
4. Input	110/230v ac ( -15% + 10% )
5. Out put	1 c/o relay contact out put @2 a.
6. Input pulse	By an namur proximity switch



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