

P S INSTRUMENTS

FLOW • LEVEL • MEASUREMENT

An ISO 9001:2015 Certified Company

Engineered for Precision.
Built for Performance



Metal Tube Rotameter

A Metal Tube Rotameter is a type of variable area flow meter designed for accurate measurement of liquid, gas, and steam flow rates, especially under high pressure, high temperature conditions & corrosive conditions.



Metal Tube Rotameter

Simple in Design. Powerful in Performance

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PRINCIPLE OF OPERATION

The Variable Area Flowmeter measures the flow of liquids and gases using the Variable Area Principle. As fluid flows through the tapered tube, it lifts a float the height of which corresponds to the flow rate. This float movement is transferred via magnetic coupling to an external pointer, which moves over a calibrated scale to indicate the flow. The design ensures safe, accurate measurement without direct contact between the fluid and the indicator.

General Specifications

Accuracy	: /- 1.5 % F.S.R.
Repeatability	: 0.5%
Rangeability	: 10:1
Scale length	: 160 degree
Angular Pressure Ratings	: 90 Kg/cm ² , 300 Bar (Optional)
Temperature Ratings	: -20° To 300°
Cconnections	: Flanged OR Screwed
Enclosure	: IP 55 OR IP 65 on request
Tube	: 316SS, 316LSS, 304SS, PP, PTFE
Float	: 316SS, 316LSS, 304SS, PP, PTFE
Indicator Box	: Cast Al., SS 304
Flange	: 316SS, 316LSS, 304SS,
Range	: LPH , LPM , Kg/hr , m ³ /hr , Nm ³ /hr , CFH , CFM , As Per Requirement
Suitable to measure flow rate of opaque/translucent liquid, gases Steam and vapors under critical operating conditions.	
Available in SS-316/ SS-304/PP/PTFE LINING construction and flanged from 25 NB to 150 NB pipe size.	
Heating Jacket on request.	



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APPLICATIONS



Chemical Industry

- Acid, alkali, corrosive liquids flow measurement



Pharmaceutical Industry

- Purified water (PW), WFI systems
- Clean & hygienic process lines



Oil & Gas Industry

- Fuel oil, diesel, lubricants flow measurement
- Gas flow monitoring in pipelines



Water & Wastewater Treatment

- Raw water / treated water flow monitoring
- Chemical dosing lines



Boiler & Steam Systems

- Steam flow measurement
- Feed water & condensate lines



Power Plants

- Cooling water circuits
- Lubrication oil systems



Process Industries

- Flow indication in pipelines
- Batch & continuous process control



OEM & Machinery

- Skid-mounted systems
- Panel-mounted flow indication



ACCESSORIES

FLOW SWITCH

TRANSMITTER 2 WIRE 4 – 20 Ma

FLOW RATE + TOTALISER + 4 -20 Ma

TRANSMITTER EX-PROFF IIA IIB IIC



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Metal Tube Rotameter – Advantages

- Steam flow measurement
- Feed water & condensate lines



Rugged Construction

- All-metal body (SS304 / SS316 / PTFE Lining) ensures durability
- Suitable for harsh industrial environments
- ✓ “Accurate Flow Measurement You Can Trust”
- Provides precise flow measurement with excellent repeatability, reducing process errors.



High Pressure & Temperature Resistance

- Can withstand high pressure and temperature conditions
- Ideal for steam and Liquid critical applications



Suitable for Corrosive Media

- Compatible with acids, chemicals, and aggressive fluids
- Optional special materials available



Accurate & Reliable Measurement

- Provides consistent and precise flow readings
- Stable performance over long periods



No External Power Required

- Mechanical operation
- Works even during power failure



Low Maintenance

- Suitable for liquids, gases, and steam
- Applicable across multiple industries



Long Service Life

- Simple and robust design
- Easy servicing and spare availability



Easy Installation

- Designed for vertical & Horizontal pipeline installation
- Available in flanged threaded, TC connections
- **Low Pressure Drop**
Ensures energy efficient operation without affecting system performance
- **Real-Time Monitoring & Control** Helps in better process control, improving productivity and reducing wastage.
- Accurate measurement even at higher flow (150 m3/hr). Suitable for low flow (1 LPHS)

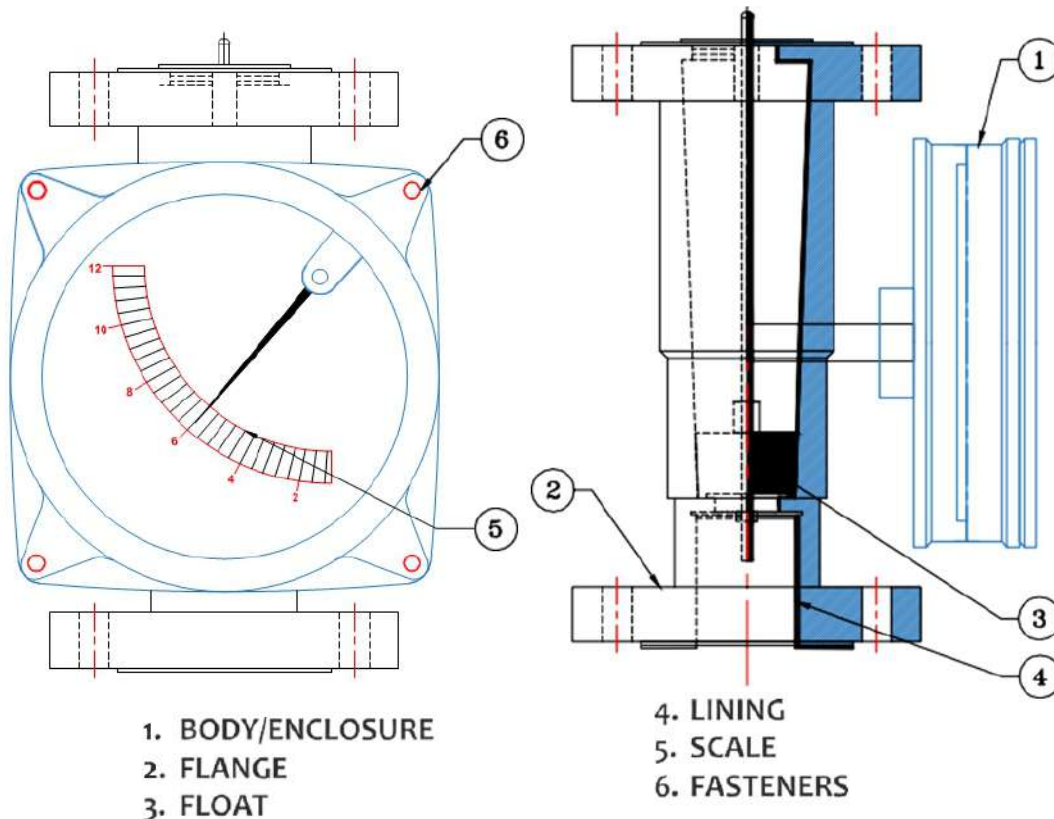




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WHY OUR COMPANY ?

- ✓ ISO 9001:2015 Certified
- ✓ Experienced Manufacturing Team
- ✓ Customization Available
- ✓ Competitive Pricing
- ✓ Strong After-Sales Support
- ✓ Quick Response
- ✓ Expert Technical Support
- ✓ On-Time Delivery



“Fast Response.

Expert Support.

Reliable Delivery – Every Time.”



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FLOW RANGE AND PRESSURE LOSS



NB	Model No	With PTFE Float LPH	With SS 316 Float LPH	Max Press Drop MMWC
15	PS-MTR - 1	1 - 10	1 - 10	650
	PS-MTR - 2	2.5 - 25	4-40	
	PS-MTR - 3	4 - 40	6.5-65	
	PS-MTR - 4	6.5 - 65	10-100	
	PS-MTR - 5	10 - 100	16-160	
	PS-MTR - 6	16-160	25-250	
	PS-MTR - 7	25- 250	40-400	
	PS-MTR - 8	40 - 400	63-630	
25	PS-MTR - 9	63- 630	100-1000	750
	PS-MTR - 10	100 - 1000	160-1600	
	PS-MTR - 11	160 - 1600	250-2500	
	PS-MTR - 12	250 - 2500	400-4000	
40	PS-MTR - 13	400 - 4000	630-6300	1000
	PS-MTR - 14	500 - 5000	700 - 7000	
50	PS-MTR - 15	630 - 6300	1000-10000	1100
	PS-MTR - 16	1000 - 10000	1600-16000	
80	PS-MTR - 17	1600 - 16000	2500-25000	1200
	PS-MTR - 18	2500 - 25000	4000-40000	
100	PS-MTR - 19	4000-40000	6300-63000	1200



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