

FEATURES

- Suitable for measuring gas and liquid flow
- Heavy duty design
- Easy to maintain and replace
- Suitable for high temperature
- Suitable for high pressure
- Option for in-built valve
- Wide rangeability



PRODUCT OVERVIEW

The micro metal tube rotameter is one of the rotameter types, specifically designed for high pressure and high temperature application and very low flow range.

Unlike the acrylic tube and glass tube rotameters, float is not visible because of the metal tube. Instead, a magnetic coupling is used to transfer float movement to a pointer installed outside the tube in the display unit.

Inlet/outlet direction may be either bottom/top or back/back. Connections are threaded as standard. Optional connection types are possible based on request.

Optional control valve is possible. Please specify when ordering.

STANDARD SPECIFICATIONS

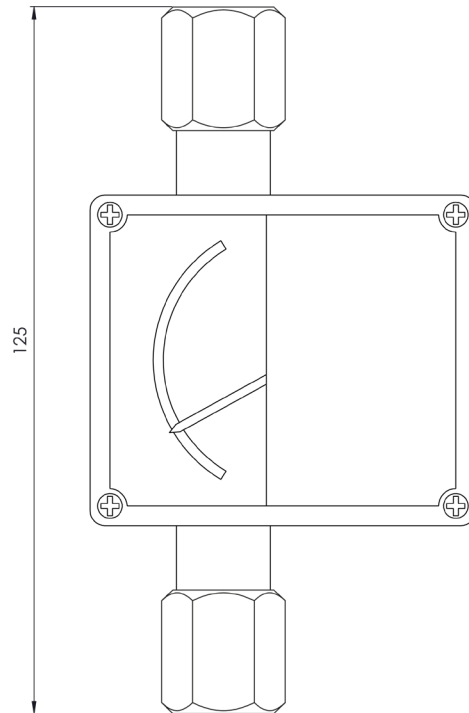
Measuring range	: Water (20°C) 1-3000 l/h Air (0.1013MPa 20°C) 0.5-90000 l/h
Range ratio	: 10:1
Accuracy	: 2.5 / 4.0
Work pressure	: PN16MPa
Medium temperature	: Standard type -40°C...+120°C
Ambient temperature	: -40°C...+80°C
Medium viscosity	: 1/4"NPT, 3/8"NPT, 1/2"NPT ≤ 5mPa.s 3/4"NPT, 1"NPT ≤ 250Pa.s
Output	: Tagging signal: two-wire system 4-20mA (24VDC power supply)
Power supply	: 24VDC ± 20%
Connection Method	: Bottom-rear in and top-rear out: 1/4"NPT (F) Bottom in and top out: 1/4" NPT, 3/8" NPT, 1/2"NPT, 3/4"NPT, 1"NPT (F)
Electrical interface	: M8*1 or User specifications
Protection class	: IP65
Explosion proof marks	: Intrinsically safe type: ExiallCT 3~6
Measuring tube material	: 316 stainless steel and 304 stainless steel
Design standard	: Micro metal tube rotameters are designed according to VDI/VDE 3513 Blatt 1. Maximum permissible error is defined according to VDI/VDE 3513 Blatt 2. Other applicable standards are ISA RP16.5, ISA RP16.6 and VDI/VDE 3513 Blatt 3.

Rev. 02

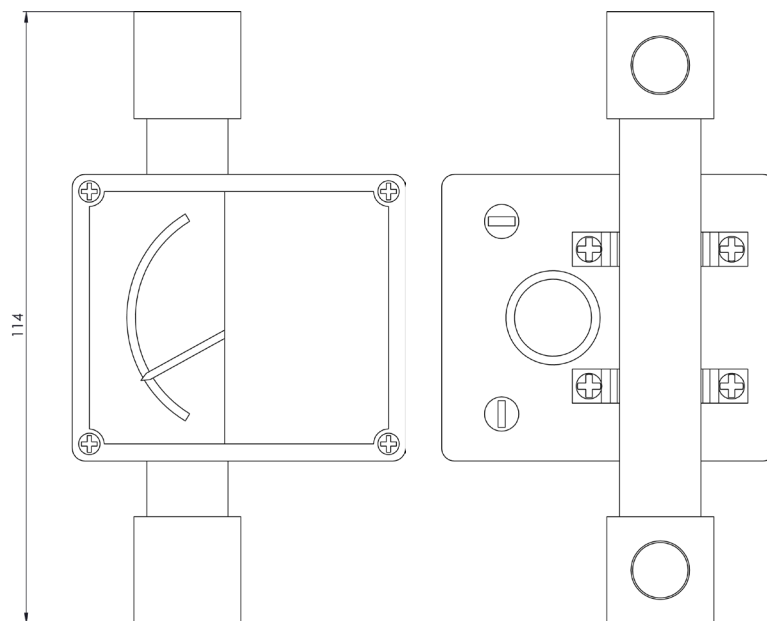
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DIMENSIONAL DRAWING

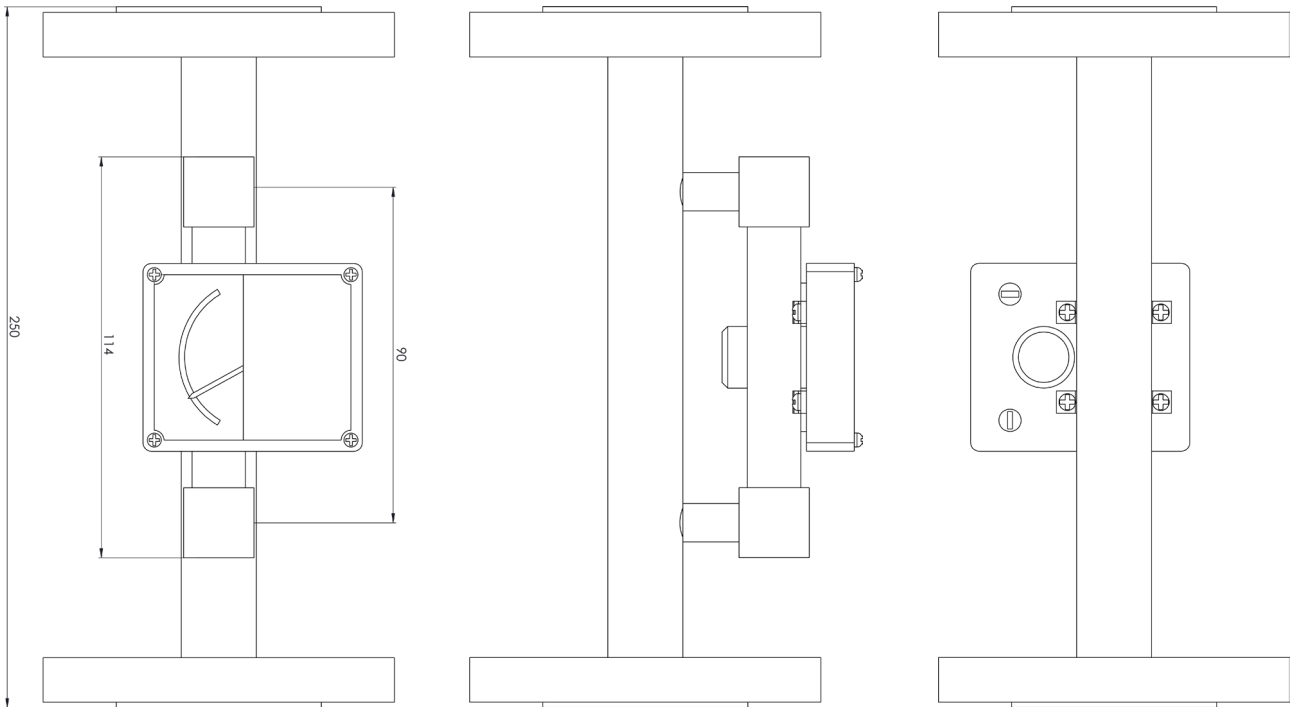
Bottom in and Top out type



Bottom rear in and Top rear out type



Flange connection Type (Optional)



FLOW RANGES

FLOW RANGES FOR WATER

Range Code	Conn Size and Type	Range for Water at 20°C
L50	1/4" NPT (F)	0.1-1 l/h
L51	1/4" NPT (F)	0.25-2.5 l/h
L52	1/4" NPT (F)	0.4-4 l/h
L54	1/4" NPT (F)	0.6-6 l/h
L55	1/4" NPT (F)	1-10 l/h
L57	1/4" NPT (F)	1.6-16 l/h
L59	1/4" NPT (F)	2.5-25 l/h
L61	1/4" NPT (F)	4.40 l/h
L63	1/4" NPT (F)	6-60 l/h
L65	3/8" NPT (F)	10-100 l/h
L67	3/8" NPT (F)	16-160 l/h
L68	3/8" NPT (F)	25-250 l/h
L69	3/8" NPT (F)	30-300 l/h
L00	Please specify	Please specify

FLOW RANGES FOR AIR

Range Code	Conn Size and Type	Range for Air at 20°C, 1 atm
A53	1/4" NPT (F)	4-40 N l/h
A54	1/4" NPT (F)	6-60 NI/h
A56	1/4" NPT (F)	10-100 NI/h
A57	1/4" NPT (F)	16-160 NI/h
A58	1/4" NPT (F)	25-250 NI/h
A59	1/4" NPT (F)	40-400 NI/h
A60	1/4" NPT (F)	50-500 NI/h
A63	1/4" NPT (F)	80-800 NI/h
A64	1/4" NPT (F)	100-1000 NI/h
A65	1/4" NPT (F)	150-1500 NI/h
A67	1/4" NPT (F)	200-2000 NI/h
A69	1/4" NPT (F)	300-3000 NI/h
A71	3/8" NPT (F)	600-6000 NI/h
A00	Please specify	Please specify

SELECTION GUIDE FOR WATER/AIR

To select the right flowmeter for your application, please specify the following when ordering a rotameter for water or air flow measurement:

1) Fluid name (water or air):
2) Flow range (minimum and maximum):
3) Operating pressure:
4) Operating temperature:
5) Maximum pressure:
6) Maximum temperature:
7) Connection Type:

SELECTION GUIDE FOR OTHER FLUIDS

The flow ranges specified in flow ranges tables are for air and water, only. If the fluid is other than air and water, specify the below information. Our sales engineers will help you choose the right rotameter.

1) Fluid name:
2) Flow range (minimum and maximum):
3) Operating pressure:
4) Operating temperature:
5) Maximum pressure:
6) Maximum temperature:
7) Fluid density:
8) Fluid viscosity (only for liquids):
9) Connection Type:

NOTES

1. Each meter is calibrated individually in our flow calibration site. As a standard rule, meters intended for liquid measurement are calibrated by water and those intended for gas measurement are calibrated by air. We also provide correction factors to convert meter reading to operating condition if requested.
2. Rangeability of rotameters is generally 10:1. This means that if the desired maximum flow rate is 10 m³/h, the minimum measurable flow rate is 1 m³/h. The meter cannot measure from zero!
3. The scale on the meter is correct ONLY for the specified fluid at pressure and temperature shown on the meter. If the fluid, operating temperature or operating pressure are different from what is written on the meter scale, correction factors need to be applied. In this case, contact us to provide you with the necessary correction coefficients.