

# Rotameters

## Gases/Liquids

### Introduction:

MCFS range of rotameter are available in more than 20 different models, virtually covering all industrial and research applications meeting all electrical, thermal, mechanical, environmental specifications. These flow indicators are first choice for online monitoring flow rate along with switching facility of fuel oil, corrosive fluids, hydrocarbon, gases, and water with very high degree of accuracy/repeatability. These flow indicators are available in different constructional material like Teflon, PP, SS-316L, and Brass to meet any on-site operational requirement. **These are simple to** installation (flanged, threaded or glued connection) with flexible mounting and offers consistent performance over large thermal range (400°C) with no moving parts./Scaled directly in l/h, m3/h or % etc with repeatable accuracy. /Switching facility between 10% to 100% & High pressure upto 40 bars./4-20 milli-ampere output (10 points)with (optional) NO/NC(220 volts/1.0 amps).These are operationally compatibility with all corrosive/non-corrosive liquids.

### Working Principle:

The fluid flows up through the flow switch, sets up thermal gradient along sensor tube, which is related to flow rate of fluid. This thermal gradient is measure by thermopile and is amplified/compared against set point to achieve desired control action. The pressure drop across the flow switch is negligible and is consistent over entire flow range. Polarity of output signal reverses when flow direction reverses and is useful in providing interlocking signal.



MRML-050005



MRML-080003



MRML-050003



MRML-080004



MRMG-03005

### ELECTRICAL/MECHANICAL SPECIFICATIONS OF ROTAMETER

### MRML SERIES FLOW RANGE <100,000.0 LPH

model	Flow range (LPH)	Size(inch)	Accuracy	Repeatability	Flow tube-Liner	O.D.P.	leak rate	Output signal
MRML-0001	1000.0	1/2	99.5	100	option	2000	<1.8x10	0.0
MRML-0002	2000.0	3/4	99.5	100	option	2000	<1.8x10	0.0
MRML-0004	4800.0	1.0	99.5	100	option	2000	<1.8x10	0.0
MRML-0007	7000.0	1.5	99.5	100	option	2000	<1.8x10	0.0
MRML-0010	10,000.0	2.0	99.5	100	option	2000	<1.8x10	0.0
MRML-0020	20,000.0	3.0	99.5	100	option	2000	<1.8x10	0.0
MRML-0050	50,000.0	4.0	99.5	100	option	2000	<1.8x10	0.0
MRML-0100	100,000.0	6.0	99.5	100	option	2000	<1.8x10	0.0
MRML-0200	200,000.0	8.0	99.5	100	option	2000	<1.8x10	0.0
MRML-0500	500,000.0	10.0	99.5	100	option	2000	<1.8x10	0.0
MRML-0800	800,000.0	12.0	99.5	100	option	2000	<1.8x10	0.0
MRML-1000	1000,000.0	14.0	99.5	100	option	2000	<1.8x10	0.0

### Technical specifications:

Operating voltage: 220 volts/50 Hz

Flow range: 1.0 to 100 LPM

Max Pressure: 600 PS

Pressure drop: 3.3 psi/GPM.mm<sup>2</sup>

Connection size: 1/2" – 6"

Flow tube material: SS-316, Brass, Glass, P.P and ceramic coated M.S.

Accuracy: +/- 5.0% (max) of reading

Repeatability: +/-1.0% of reading MLFS2002

Viscosity: 500 SSU

Switching operation life: 2000

