

Malema Metal Tube Rotameter MLZ Series

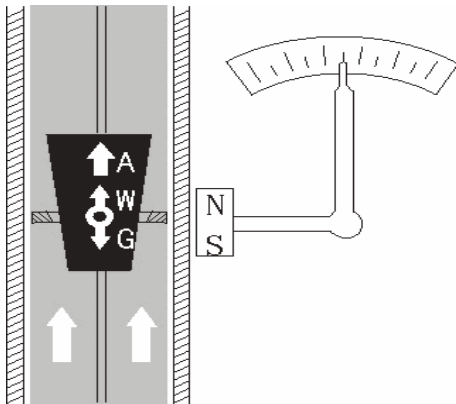
Malema's rugged all metal variable area flowmeter Model MLZ series is suitable for gas and liquid flow measurement even under high pressure and high temperature. Standard flow tube is in SS 316 and for corrosive applications the tube, orifice and float can be lined with PTFE. MLZ series rotameter comes with optional limit switches and electrical transmission output.

Each flow meter is individually calibrated and passes through a rigorous inspection program laid out by the Malema inspection team. Malema engineers will help you select appropriate models for your challenging applications. This affordable high quality flow meter combined with Malema's excellent customer support offers you the best of the flow measurement solutions in the market.

Principle of measurement:

The variable area flowmeter measures the flow rate of liquids and gases in pipe lines. It contains a vertical metal tube with an orifice (or a conical tube which widens towards the top) through which the measured medium flows.

The float (which can move in the tube in the vertical plane) settles at a specific level, if the forces acting on it are in equilibrium, such that the weight of the float is identical to the sum of the buoyancy force and the flow force. The level of the float in the conical measuring tube is proportional to the flow rate. A magnet located in the float and a magnet follow-up system enable the float's level in the tube to be indicated via a pointer. A cam mechanism linearizes the flow rate. The flow rate is then read from the scale according to the pointer position.



Rotameter with M1 Indicator

Rotameter with M2 Indicator



Applications:

- Gases
- Liquids
- Steam

Features and Benefits:

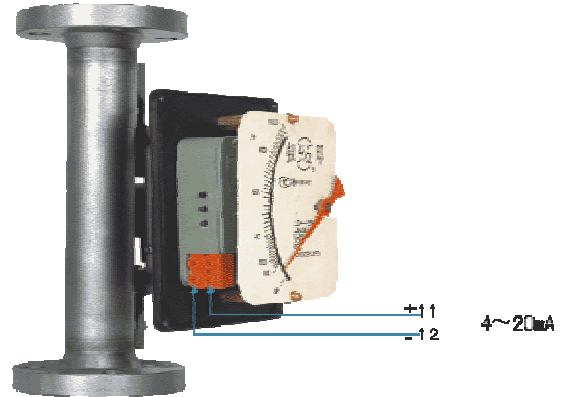
- High accuracy +/-2.5% Full scale; +/- 1.5% Full scale with special calibration
- High reliability
- Linear flow indication through M1 Indicator; Non-linear flow indication through M2 indicator
- Modular construction
- Limit switch option
- Optional 2-wire 4-20mA current output option
- Low cost of ownership
- Wide rangeability- 10:1

General Specification:

Size:	½" to 6" and DN 15 to DN 150
End Connection:	Flanged to ANSI, DIN standard
Pressure rating:	DN 15 to DN 50 (1/2" to 2") - 4.0 MPa (580 psi) DN 80 to DN150 (3" to 6") - 1.6 MPa (232 psi)
Flow range:	2.5 - 100000 LPH (water) 0.07 - 3000 m3/hr (air) Please refer flow range table for details
Process temperature rating:	Normal- H1: -40 to 100 deg C High temperature version- H2: -80 to 250 deg C
Ambient temperature limit:	-25 deg C to + 55 deg C
Materials:	Standard: SS 316, Optional: SS 316 Ti or PTFE lined SS316
Rangeability:	For sizes up to 4" (DN100) - 10:1 For 6": 5:1
Accuracy:	Standard: +/- 2.5% Full Scale; Special: +/- 1.5% Full Scales

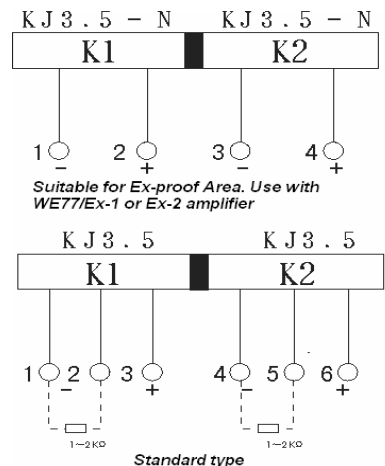
Optional Signal Converter (flow transmitter):

Type:	2 wire 4-20mA/ 3 wire 0-10mA
Power supply:	24 Vdc
Maximum load:	750 ohm
Linear Accuracy:	+/-1%

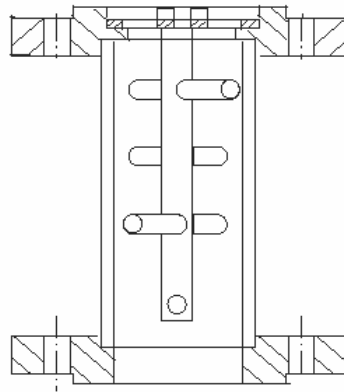


Optional Limit Switch:

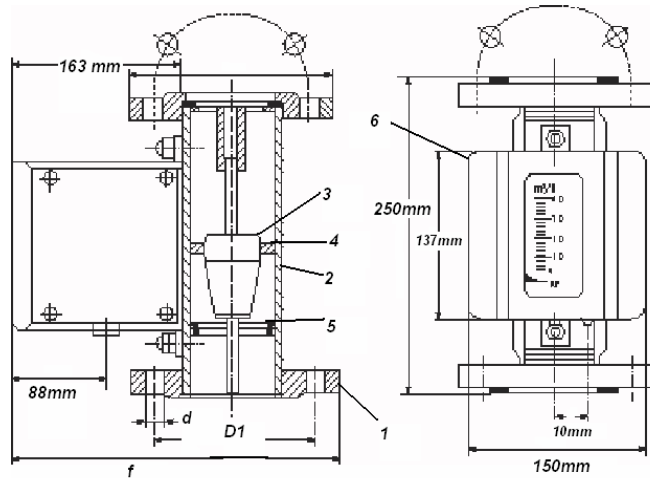
Switch type:	KJ3.5-N Rated voltage: 8 Vdc
Switch type:	KJ3.5 Rated voltage: 24 Vdc
Ambient temperature:	-25 deg C to 100 deg C
Protection:	IP 65



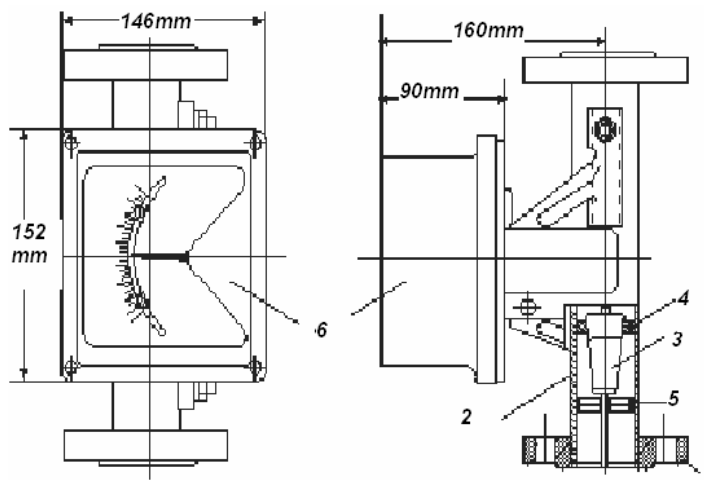
Optional Magnetic filter:
(Installed to prevent iron particles entering measuring area)



Dimensions:



M1 Indicator
 1. Flange 2. Flow tube 3. Float 4. Orifice 5. Float guide 6. Indicator



M2 Indicator
 1. Flange 2. Flow tube 3. Float 4. Orifice 5. Float guide 6. Indicator

