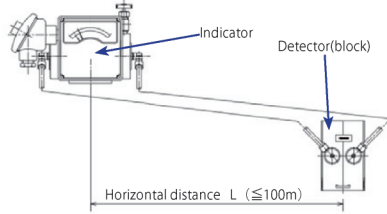


Outline

Provided with a throttling mechanism (orifice plate) in piping, this flowmeter detects changes in the flow rate by differential pressure between the inlet and outlet of the orifice and indicates an instantaneous flow rate on its indicator.

Features

1. Being compact in size, it is easy to handle and install in piping.
2. Flow rate indication is operated mechanically. Indication is stable and easy to restoring.
3. A diaphragm (special rubber with cloth) is used for the pressure-receiving portion of the indicator and so it is superior in terms of acid and chemical resistance and is suitable for general use in terms of strength and thermal resistance.
4. The mechanical part of the indicator is in the air and so it is hard to be corroded by fluid.
5. An electric contact with a microswitch can be integrated in the indicator, and so not only a flow rate indication but also an alarm signal can be transmitted.
6. Measurement is possible when the flow rate indicator is about 100 m horizontally apart from the differential pressure detector, and so remote indication can be made.



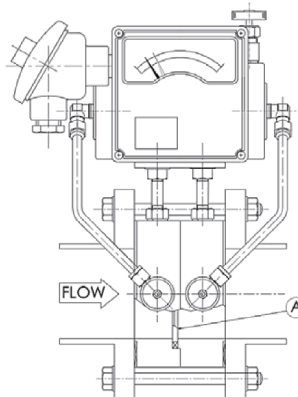
7. Multiple indicators can be installed for one detector and therefore, it can be used for indication at the site, for remote indication and for other purposes.
8. The flow rate range can be made easily changed by replacing the scale plate and throttling mechanism (orifice plate).
9. Straight piping portions must be present before and after the detector.
 - (1) Inlet side: Length of 10 times or more the inner diameter of piping.
 - (2) Outlet side: Length of 5 times or more the inner diameter of piping..

Principle

Differential pressure is generated by throttling fluid that is flowing in a pipe at (A) as shown in the diagram.

By measuring the differential pressure, you can determine the flow rate.

In the case of this flowmeter, the differential pressure generated in the differential pressure detector is received by a diaphragm of the indicator and the movement makes the needle shake mechanically with a cam mechanism and the flow rate is indicated.



(Diagram is of model ODM-300SDR standard type.)



ODM-300-S-DR-10K150A
-3000m³/h-SUS304



ODM-300-DR-10K150A
-3000m³/h-SUS304

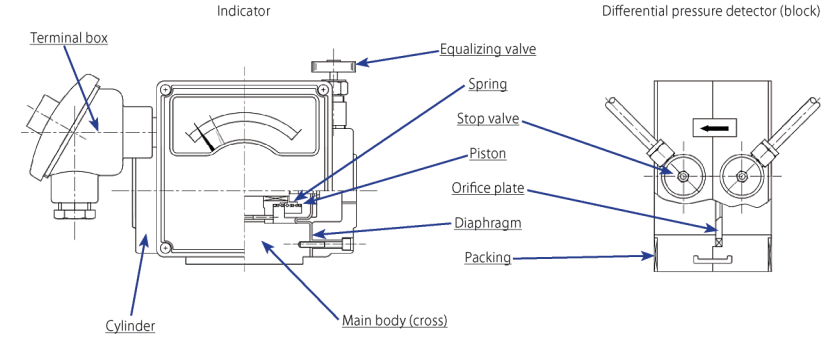


ODM-300-S-ST-5K40A
-10m³/h-PVC
(Terminal box Upper position type)



ODM-300-ST-5K40A
-10m³/h-PVC

Structure



Models

• Model ODM-300

General industrial water, seawater, oil, chemicals, other liquids and similar fluids.

② Model ODM-300S

Contacts are provided for model ODM-300 so that in addition to flow rate indication, it can show whether or not there is a specified flow rate.

Specifications

Pressure range	0.05~1.0MPa(G)
Temperature range	0~100°C (No condensation or freezing conditions.)
Flow rate accuracy	±2% (full scale)
Connection method	Flange insertion method
Differential pressure	MAX0.05MPa

Note: Pressure range and temperature range may vary depending on the material at the connection.

Contact specifications

Number of contacts	1~2
Contact method	Microswitch
Contact capacity	AC125V-5A, 250V-5A
Withstand voltage	AC125V-5A, 250V-5A (resistance load)
Insulation resistance	100 MΩ or more with DC500V megger (between terminal and case)

Model indication

Model name	Model number	With contact	Series number	Connecting diameter	Maximum flow rate	Material
ODM	300					

	JIS5K, JIS10K or ANSI
ST	without stop valve
DR	with stop valve
	special product
S	with one contact
S2	with two contacts
Blank	without contact

*Example: ODM-300-S-DR-150A•10K-2500L/min-BC

Product of model ODM-300, with one contact, with stop valve, diameter: for 150A•JIS10K, The flow rate range is 500 – 2500 L/min and material of main part is BC.