

Variable area flow meter for water or oil

Polysulfone, up to 16 bar

Series: S-AE25



Overview

Product type	Variable area flow meter with direct scale
Medium	Water, or oil with a viscosity of 100 cSt (by model)
Flow ranges	Water 2 to 100 l/min (smallest range 2-20, largest 20-100); oil 1 to 75 l/min (smallest 1-18, largest 10-75), by model
Connection	G 1" male thread
Body material	Polysulfone (transparent)
Pressure rating	16 bar (≈230 psi)
Medium temperature	0 to +120 °C (≈32 to 248 °F)

Description

This variable area flow meter shows the flow directly on a scale in l/min, without power supply. A spring-loaded float with a sharp-edged orifice rises with the flow inside a transparent polysulfone body; each float position corresponds to a flow value.

Each model has a scale for one medium: water, or oil with a viscosity of 100 cSt. A thicker oil can give a large reading error. For oils from 30 to 600 cSt or for pressures above 16 bar, choose a metal variable area flow meter: one scale covers that whole viscosity range.

Features

- ▶ Direct reading in l/min, no power supply or wiring
- ▶ Any mounting position, no readjustment needed
- ▶ Transparent body with the float position visible at a glance
- ▶ 5 water models and 4 oil models, rated to 16 bar

Technical data

Medium	Water (water models) or oil with a viscosity of 100 cSt (oil models); only lightly contaminated liquids
Measuring principle	Spring-loaded float (variable area)
Reading	Upper outer edge of the float on the scale, in l/min
Accuracy	Not specified
Connection	G 1" male thread
Pressure rating	16 bar (≈230 psi) (no temperature derating specified)
Medium temperature	0 to +120 °C (≈32 to 248 °F)
Mounting position	Any; no readjustment for the mounting position
Flow direction	One direction only, from the float towards the spring
Weight	90 to 95 g

Materials

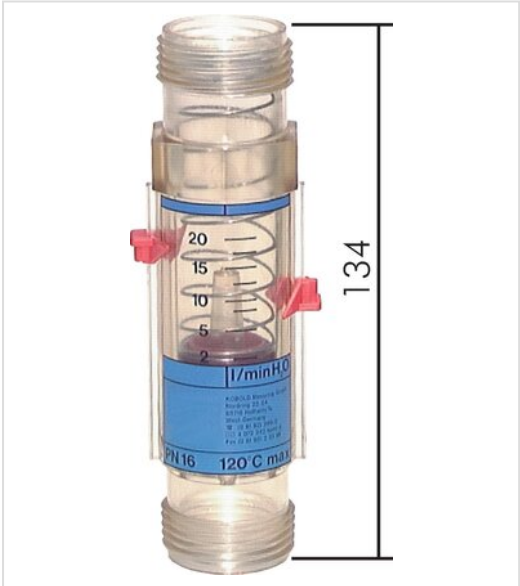
Body	Polysulfone
Spring	Stainless steel 1.4310
Seal (water models)	NBR
Seal (oil models)	Fiber gasket (Klingerit-Oilit)

Models

Tameson SKU	Medium	Measuring range	Connection	Pressure rating	Weight
M287A	Water	2 - 20 l/min	G 1" male	16 bar	90 g
M287B	Water	5 - 35 l/min	G 1" male	16 bar	95 g
M287C	Water	5 - 50 l/min	G 1" male	16 bar	90 g
M287D	Water	10 - 80 l/min	G 1" male	16 bar	95 g
M287E	Water	20 - 100 l/min	G 1" male	16 bar	95 g
M287F	Oil, 100 cSt	1 - 18 l/min	G 1" male	16 bar	90 g
M287G	Oil, 100 cSt	2 - 30 l/min	G 1" male	16 bar	95 g
M287H	Oil, 100 cSt	5 - 45 l/min	G 1" male	16 bar	90 g
M287J	Oil, 100 cSt	10 - 75 l/min	G 1" male	16 bar	95 g

Dimensions

The dimensions are the same for all models.



Dimension	Value
Overall length (G 1" male connections)	134 mm
Wrench size, body nut	35 mm
Connection	G 1" male thread

Installation

1

Check the limits

Make sure the maximum pressure (16 bar) and temperature (+120 °C) are not exceeded.

2

Remove transport protection

Remove all transport locks and packaging parts from the meter before installation.

3

Observe the flow direction

The flow runs from the float towards the spring. The meter can be installed in any position without readjustment.

4

Keep away from induction fields

Do not install the meter in an induction field.

⚠ Warning

Measure only lightly contaminated liquids that the body materials resist. Larger dirt particles can block the float, and iron particles that collect on the float can cause the same fault.

5

Check for leaks

After installation, check that the connections are tight.

Operation

Read the flow at the upper outer edge of the float. With a non-pulsating flow, the flow may exceed the measuring range considerably; only the pressure loss increases, and the reading is then off scale.

Maintenance

With a clean medium, the meter is almost maintenance-free. If lime or dirt deposits form, clean the meter regularly: unscrew it from the line with a suitable open-end wrench and clean it in a suitable cleaning or ultrasonic bath.

⚠ Warning

Do not exceed the maximum pressure (16 bar) and temperature (+120 °C). Depressurize and drain the line before removing the meter. Only persons who know these instructions and the applicable safety rules may install, use and maintain the meter.

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Document Information

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Specifications subject to change without notice. Verify current specifications before ordering.