

Viscosity-compensated variable area flow meter

Stainless steel 1.4571, up to 300 bar

Series: S-GB6X



Overview

Product type	Variable area flow meter for local flow reading
Medium	Oils and other liquids, 30 to 600 cSt
Flow ranges	0.1 to 110 l/min over 12 models (smallest range 0.1-0.8, largest 35-110 l/min)
Connection	G 1" female thread
Body material	Stainless steel 1.4571
Pressure rating	300 bar (=4350 psi)
Power supply	Not required

Description

This variable area flow meter shows the flow of oil directly on a scale in l/min. It needs no power supply or wiring and suits local flow checks in lubrication, hydraulic and cooling oil circuits of machines and plants.

A spring-loaded float moves with the flow. Specially shaped measuring bores compensate for viscosity, so one scale stays valid for oils from 30 to 600 cSt (centistokes); the scale does not have to be adjusted to the medium or the pressure.

The meter has no electrical output. For a switching signal at a set flow, choose the variable area flow meter with switch contact.

Features

- ▶ Direct flow reading in l/min, no power supply or wiring
- ▶ Viscosity compensation for oils from 30 to 600 cSt, without recalibration for a change of oil or pressure
- ▶ Stainless steel 1.4571 body rated to 300 bar
- ▶ 12 models between 0.1 and 110 l/min, each with its own range, all with the same dimensions
- ▶ Any mounting position, preferably with upward flow
- ▶ Maintenance limited to occasional cleaning

Technical data

Medium	Mineral oils and other liquids with a viscosity of 30 to 600 cSt (0.1-0.8 l/min version: 30 to 400 cSt)
Measuring range	0.1 to 110 l/min over 12 models; each model has its own range, from 0.1-0.8 l/min (smallest) to 35-110 l/min (largest), see models
Measuring principle	Spring-loaded float (variable area)
Accuracy	±5 % of full scale
Pressure loss	0.02 to 0.4 bar (range given for the series)
Connection	G 1" female thread (DIN 228), wrench size 40
Pressure rating	300 bar (≈4350 psi)
Medium temperature	-20 to +120 °C (≈-4 to 248 °F)
Ambient temperature	Max. +80 °C (≈176 °F)
Mounting position	Any, preferably with upward flow
Flow direction	One direction only, from the low to the high scale value
Protection class	IP53
Weight	Approx. 1.1 to 1.2 kg

Materials

Body	Stainless steel 1.4571
Float	Stainless steel 1.4571
Spring	Stainless steel 1.4571
Stop rings	Stainless steel 1.4571
Seals	FKM
Display	Polycarbonate / stainless steel 1.4301

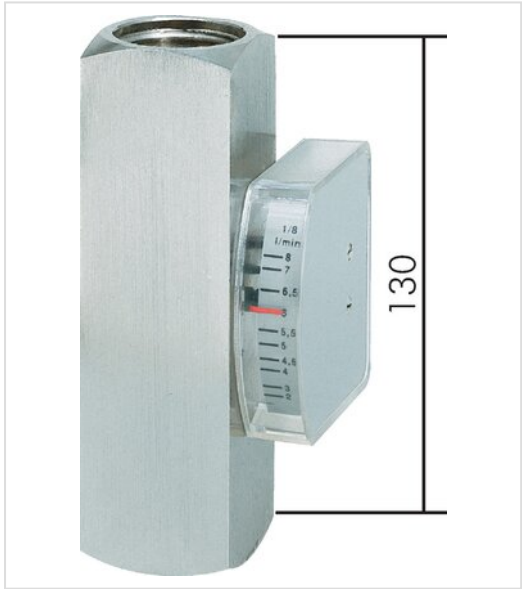
Models

All models have a G 1" female thread and the same dimensions. Choose the model whose range includes the normal operating flow.

Tameson SKU	Measuring range	Viscosity	Connection	Pressure rating	Weight
M287Y	0.1 - 0.8 l/min	30 - 400 cSt	G 1" female	300 bar	1.1 kg
M287Z	0.5 - 1.5 l/min	30 - 600 cSt	G 1" female	300 bar	1.2 kg
M2882	1 - 4 l/min	30 - 600 cSt	G 1" female	300 bar	1.1 kg
M2883	2 - 8 l/min	30 - 600 cSt	G 1" female	300 bar	1.1 kg
M2884	3 - 10 l/min	30 - 600 cSt	G 1" female	300 bar	1.1 kg
M285Q	5 - 15 l/min	30 - 600 cSt	G 1" female	300 bar	1.1 kg
M2885	8 - 24 l/min	30 - 600 cSt	G 1" female	300 bar	1.1 kg
M2886	10 - 30 l/min	30 - 600 cSt	G 1" female	300 bar	1.1 kg
M2887	15 - 45 l/min	30 - 600 cSt	G 1" female	300 bar	1.2 kg
M285R	20 - 60 l/min	30 - 600 cSt	G 1" female	300 bar	Not specified
M285S	30 - 90 l/min	30 - 600 cSt	G 1" female	300 bar	Not specified
M2888	35 - 110 l/min	30 - 600 cSt	G 1" female	300 bar	1.1 kg

Dimensions

The dimensions are the same for all flow ranges.



Dimension	Value
Overall length	130 mm
Connection	G 1" female thread (DIN 228)
Body width (wrench size)	40 mm
Weight	Approx. 1.1 to 1.2 kg

Installation

1

Check the medium

The medium must not carry solid particles. Magnetic particles can also cause faults; fit a dirt trap with a double screen or a magnetic filter upstream.

2

Provide straight pipe runs

10 × D upstream and 5 × D downstream of the device (D = nominal pipe diameter) to avoid measuring errors.

3

Observe the flow direction

The flow must run from the low to the high scale value.

4

Use suitable threads and sealant

All threads are G threads to DIN 228. Use only matching fittings and sealant; unsuitable ones affect function and tightness.

⚠ Warning

When screwing in fittings, hold the device body against the torque with a suitable open-end wrench on the wrench flats. The screw connection must not turn against the body, or the device can leak.

5

Mounting position

Any; upward flow from bottom to top is preferred.

Maintenance

The meter has only a few moving parts, so maintenance is limited to occasional cleaning. Keep solid and magnetic particles out of the medium with a dirt trap or magnetic filter upstream. Before cleaning, depressurize and drain the line.

⚠ Warning

Do not exceed the maximum pressure (300 bar) and temperature (+120 °C medium, +80 °C ambient). Depressurize and drain the line before removing the meter.

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Document Information

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