

DV01

Gear Wheel Flow Sensor for Viscous Liquids for OEM Applications

- for media with viscosities between 20-4000 cSt
- low-cost version
- aluminium- or stainless steel version
- low pressure loss
- high compressive strength
- small mounting dimensions
- any flow direction
- measuring ranges: 0,02...4 l/min up to 1...200 l/min
- P_{\max} : 240 bar, T_{\max} : 80 °C



Description:

The DV01 measuring system consists of a pair of gearwheels which, according to the gear wheel pump principle are rotated by the flowing liquid.

The gear wheel bearings are constructed as radial and axial plain bearings (in the case of the DV01.1 and DV01.3, the DV01.2 uses ball bearings). A magneto resistive measuring system hermetically sealed from the measuring chamber senses the rotation of the gear wheels and converts it into a pulse train. The gear wheel flow meter DV01 causes a very low pressure drop and makes especially little noise.

Typical applications:

The gear wheel flow meters DV01 are mainly used for consumption measurement, the control of dosing applications and for monitoring lubricating points. Because of their small dimensions and their low price they are especially suited for all kinds of OEM applications.

Models and Measuring Ranges:

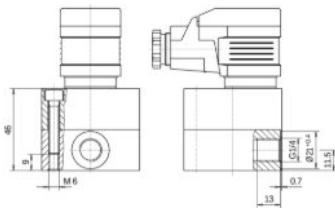
Type	Measuring range [l/min]	Viscosity range [cSt]	Connection	Measuring volume [ml/pulse]	Resolution [pulse/l]
DV01.0	0,02- 4	20...4000	G 1/4 female	0,04	25000
DV01.1	0,25...10	20...4000	G 3/8 female	0,2	5.000
DV01.2	0,16...16	20...3000	G 3/8 female	0,245	4.082
DV01.3	1...65	20...4000	G 3/4 female	2	500
DV01.4	1...200	20...4000	G 1 female	5,2	191,5

Material:

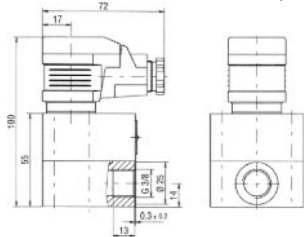
Type	Housing	Gear wheels	Bearings
DV01.0A	aluminium anodized	stainless steel 1.4462	ball bearings
DV01.0E	stainless steel 1.4404	stainless steel 1.4462	ball bearings
DV01.1A	aluminium (anodized)	steel	plastic plain bearings
DV01.1E	stainless steel 1.4404	stainless steel 1.4462	plastic plain bearings
DV01.2A	aluminium (anodized)	steel	ball bearings
DV01.3A	aluminium	steel	multilayer plain bearing
DV01.4A	aluminium	steel	ball bearings

Dimensions:

DV01.0A / DV01.0E: b = 55 mm, t = 55 mm, h = 46 mm

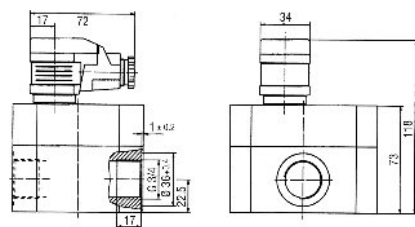


DV01.1A und DV01.1E: b = 55 mm, t = 65 mm, h = 108 mm

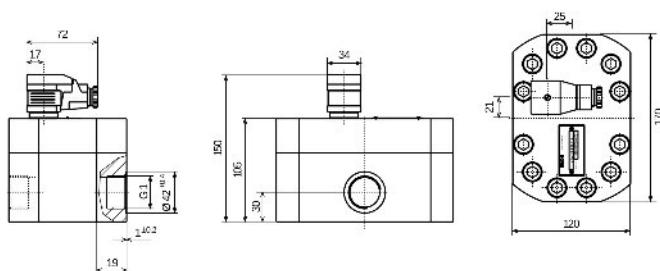


(DV01.2A: like DV01.1A, but housing b = 55 mm, t = 65 mm, h = 108 mm)

DV01.3A: b = 90 mm, t = 100 mm, h = 73 mm



DV01.4A: b = 120 mm ; t = 170 mm ; h = 105 mm



Order Code:

Order number:

DV01. 1A. 0. 0

Gear wheel flow sensor

Measuring ranges:

0A = 0,02...4 l/min, aluminium
 0E = 0,02...4l/min, stainless steel
 1A = 0,25...10 l/min, aluminium
 1E = 0,25...10 l/min, stainless steel
 2A = 0,16...16 l/min, aluminium
 (high temperature version up to 150 °C on request)
 3A = 1...65 l/min, aluminium
 4A = 1...200 l/min, aluminium

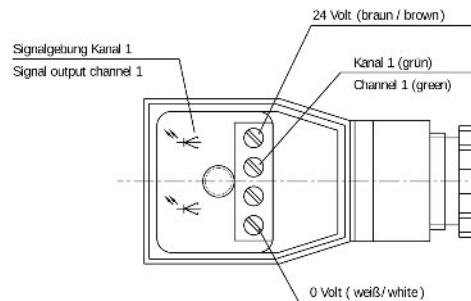
Display:

0 = without display
 DVA= prepared for plug-on display DVA
 (data sheet on the following pages)

Options:

0 = without
 1 = please specify in plain text

Electrical Connection:



Technical Data:

Max. pressure:

DV01.0A:	240 bar
DV01.0E:	160 bar
DV01.1A	200 bar
DV01.1E:	160 bar
DV01.2A:	200 bar
DV01.3A:	200 bar
DV01.4A:	100 bar

Medium temperature range: -10 °C...+80 °C

Accuracy:

DV01.0A and DV01.0E:	±2 %
DV01.1A and DV01.1E:	±3 %
DV01.2A:	±0,3 %
DV01.3A:	±2,5 %
DV01.4A:	±1 %

Weight:

DV01.0A and DV01.0E:	0,5 kg
DV01.1A and DV01.1E:	0,5 kg
DV01.2A:	0,7 kg
DV01.3A:	1,9 kg
DV01.4A:	6 kg

Supply voltage:

12...30 VDC,
protected polarity

Power consumption:

0,9 W

Output signal:

square wave pulses,
min. 0,8 x UB,
duty cycle
1:1 (±15 %)

Protection class:

IP65