

# DV01

## Gear-Wheel Flow Sensor for Viscous Liquids, for OEM-Applications

- for media viscosities between 20 - 4000 cSt
- low price
- Aluminium housing, gearwheels steel
- low pressure drop
- max. pressure up to 200 bar
- small mounting dimensions



### Description:

The DV01 measuring system consists of a pair of gear-wheels 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 magnetoresistive 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 emits especially little noise.

### 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.

## Versions and measuring ranges

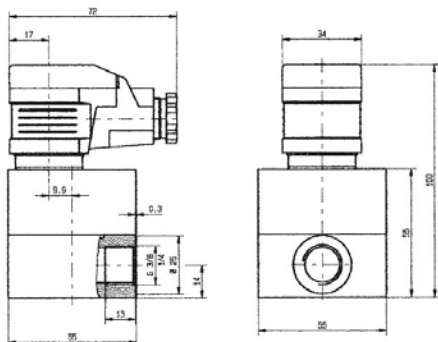
Model	Meas.-range (l/min)	Viscosity-range (cSt)	Con-nection	Meas.-volume (ml/puls)	Resolution (pulse/l)
DV01.0	0.02- 4	20...4000	G 1/4	0.04	25,000
DV01.1	0.25...10	20...4000	G 3/8 i	0.2	5,000
DV01.2	0.16...16	20...3000	G 3/8 i	0.25	4,082
DV01.3	1...65	20...4000	G 3/4 i	2	500
DV01.4	1...200	20...4000	G 1 i	5.2	191.5

## Materials

Model	Housing	Gear wheels	Bearings
DV01.0A	Aluminium	Stainless steel 1.4462	Ball bearings
DV01.0E	Stainless steel 1.4404	Stainless steel 1.4462	Ball bearings
DV01.1A	Aluminium	Steel	Plain bearings
DV01.1E	Stainless steel 1.4404	Stainless steel 1.4462	Plain bearings
DV01.2A	Aluminium	Steel	Ball bearings
DV01.3A	Aluminium	Steel	multi-layer lightweight floating bearing
DV01.4A	Aluminium	Steel	Ball bearings

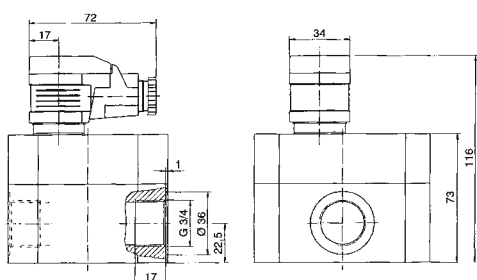
## Dimensions:

DV01.0A / DV01.0E and DV01.1A and DV01.1E



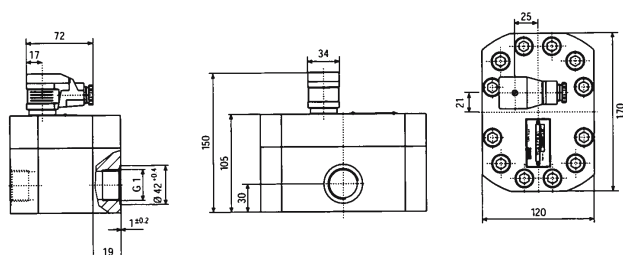
DV01.2A: as DV01.1A, but housing 55 x 65 mm, height 108 mm

DV01.3A



Width x depth: 90 x 100 mm

DV01.4A



## Ordering code:

Model number:

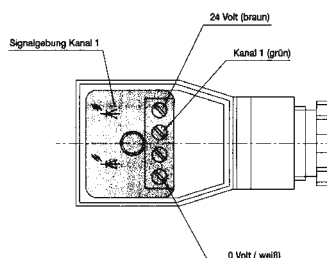
DV01. 1A

Gear wheel flow meter

## Measuring range:

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  
 3A = 1...65 l/min, aluminium  
 4A = 1...200 l/min, aluminium

## Electrical connection:



## Technical specifications:

### max. pressure:

DV01.0A: 200 bar  
 DV01.0E: 160 bar  
 DV01.1A and DV01.1E: 160 bar  
 DV01.2A: 160 bar  
 DV01.3A: 160 bar  
 DV01.4A: 80 bar

### Temperature range:

-10°C ... +80°C

### Measuring 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

### Output signal:

square wave pulses, min. 0,8\*U<sub>B</sub>,  
duty cycle 1:1 (+/- 15%)

### Electrical protection:

IP 65

PKP Prozessmesstechnik GmbH

Borsigstraße 24 · D-65205 Wiesbaden

+49 (0) 6122-7055-0 · +49 (0) 6122-7055-50

Email: info@pkp.de · Internet: www.pkp.de

PKP Process Instruments Inc.

10 Brent Drive · Hudson, MA 01749

+1-978-212-0006 · +1-978-568-0060

Email: info@pkp.eu · Internet: www.pkp.eu

