

DV08

Screw-spindle-type volumetric flow meter for highly viscous liquids

- **rugged, heavy-duty design, aluminum housing, max. 160 or 350 bar**
- **for 1" to 2½" pipe**
- **unaffected by the viscosity, density or conductivity of the product being monitored**
- **outputs: pulse signals, field programmable frequency output, 4–20 mA, 0–10 V, limit switch**
- **max. product temperature 80 °C, optionally up to 150 °C**



Description:

The DV08 flow meter is fitted with twin helical screws, which rotate in opposite directions due to the flow of product being monitored. The rotational speed is proportional to the flow rate. The rotary motion of the screws is detected by a sensor which emits two pulses per revolution. Each pulse signal represents a pre-defined volume of product.

The flowmeter doesn't have to be taken out of the pipe system for changing the pick-up system because the pick-up is hermetically sealed from the medium. The viscosity of the product has virtually no effect on the DV08 due to the volumetrical measurement technique used.

Typical Applications:

The DV08 can be used for flow measurement, monitoring and totalizing of liquid, viscous and self-lubricating products up to 40,000 mPas. The device is suitable for use in hydraulic systems, and for lubricant monitoring, metering soaps, pastes and emulsions – to name but a few of its application areas.

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Process Instruments Inc.

10 Brent Drive · Hudson, MA 01749

Tel: 978-212-0006 · Fax: 978-568-0060

Email: sales@clarksol.com · Internet: www.clarksol.com



PKP Prozessmesstechnik GmbH

Borsigstraße 24 · D-65205 Wiesbaden

Tel: 49 (0) 6122-7055-0 · Fax: 49 (0) 6122-7055-50

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

Models:

DV08.A...	aluminum 6082 housing, carbon steel 1.4460 screw-type spindles and bearings, Viton gaskets, process connections: aluminum (160 bar) or carbon steel (350 bar)
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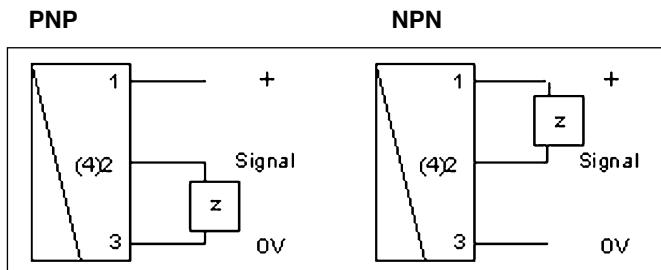
Measuring ranges:

Measuring range *)	Process connection	
	Aluminum female threaded connection "G", Pmax. 160 bar	SAE flange with carbon steel female threaded connection, Pmax. 350 bar
1,4...140 l/min	GA25	SAE25
3,5...350 l/min	GA32	SAE32
8...800 l/min	GA40	SAE40
15...1500 l/min	GA50	SAE50
25...2500 l/min	GA65	SAE65

*) Maximum measuring ranges are listed. The upper range value may be smaller for higher product viscosities due to the greater pressure differential.

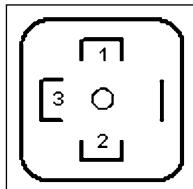
Electrical Connection:

Pulse output, push/pull



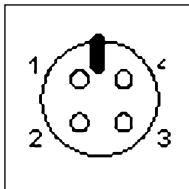
Pin assignment:

5-pin DIN connector



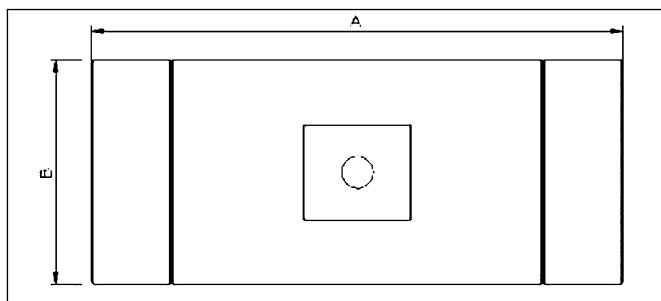
- 1 = power supply 20–30 VDC
- 2 = output (5-pin DIN connector)
- 4 = output (M12x1 connector)
- 3 = 0 V

M12x1 connector



Please refer to the "Operating Instructions" for pin assignments for models with electronics modules M5, M6, M7.

Dimensions:



Model Coding:

Order Number: DV08. A. V. GA25. IW. 0

Screw-type spindle flow meter

Materials:

- A = Aluminium / carbon steel
- S = Special order version

Gaskets:

- V = Viton (standard)
- S = Special-order gaskets

Measuring range / process connection:

GA25 ... SAE65 see "Measuring ranges" table

99 = Special-order connection / special-order measuring range

Output (configurable on site):

- IW = pulse output (push/pull), 5-pin DIN connector
- IR = pulse output (push/pull), M12x1 round plug
- M5 = frequency converter (field programmable, 0–2 kHz)
- M6 = switched output (limit value, field programmable)
- M7I = with F/I converter (4–20 mA output)
- M7U = with F/U converter (0–10 V output)

Options:

- 0 = None
- 1 = High-temperature device rated up to 150°C, separate electronics at 30 cm clearance from device (with IR output only)
- 2 = M12 x 1 matching plug, 4-pin, with 2 m cable
- 9 = Please specify in writing

Technical Specifications:

Max. pressure:

- with threaded fitting (AL) 160 bar
- with SAE flange 350 bar

Product temperature: -25...+80 °C
(option: up to 150 °C)

Measurement

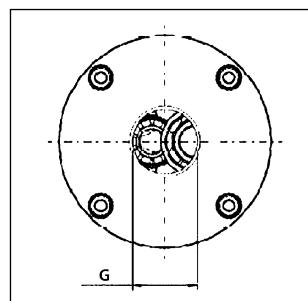
uncertainty: ± 1% of measured values

Repeatability: ± 0,25%

Products: oil or other, non-corrosive, self-lubricating products

Power supply: 10–30 VDC

Protection type rating: IP65



Con- nection	A	A (with SAE)	B	Pulses/ L
1"	200	288	85	76,3
1 1/4"	270	358	100	34,5
1 1/2"	340	442	135	13,9
2"	430	570	180	7,5
2 1/2"	478	628	210	4,2