DV08

Screw-Spindle Volumetric Flow Meter for Highly Viscous Liquids

- **heavy duty design, aluminium housing, max. 160 or 350 bar**
- **for 1“ to 2½“ pipe**
- **unaffected by the viscosity, density or conductivity of the medium**
- **output signals: pulse signal, programmable frequency output, 4...20 mA, 0...10 V, limit switch**
- **measuring ranges: 1,4...140 l/min up to 25...2500 l/min**
- **P_{max}: 350 bar, T_{max}: 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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Models/Materials:

DV08.A…:	housing:	aluminium 6082
	screw-type spindles:	steel 1.4460
	bearing:	steel 1.4460
	gaskets:	FKM
	process connection:	aluminium (160 bar) or steel (350 bar)

Measuring ranges:

Connec-tion size	Measuring range* [l/min]	Output frequency at Qmax [Hz]	Process connection	
			Female thread "G" aluminium Pmax. 160 bar	SAE flange with female thread, steel, Pmax. 350 bar
G 1	1,4...140	254,5	GA25	SAE25
G 1 1/4	3,5...350	287,4	GA32	SAE32
G 1 1/2	5,5...550	274,5	GA40A	SAE40A
G 1 1/2	8...800	277,8	GA40	SAE40
G 2	10...1000	257,3	GA50A	SAE40A
G 2	15...1500	275,7	GA50	SAE50
G 2 1/2	25...2500	265,2	GA65	SAE65

* the maximum measuring ranges are indicated in each case. For higher viscosities, the full scale value of the measuring range can be adjusted due to the of a larger differential pressure will be lower.

Order Code:

Order number: **DV08. A. V. GA25. IW. 0**

Screw-spindle volumetric flow meter for highly viscous liquids

Material:
A = aluminium / steel
S = special order

Gasket:
V = FKM (standard)
S = special order

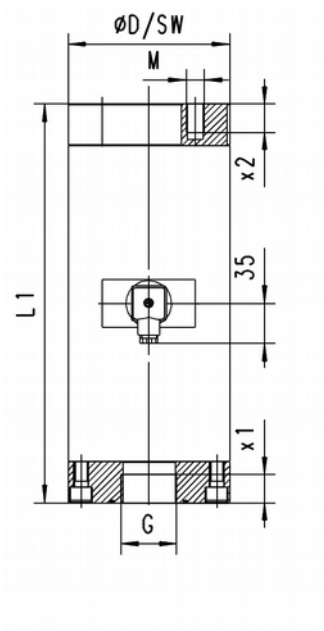
Measuring range / Process connection:
GA25 … SAE65 acc. to table „measuring ranges"
99 = special connection / special measuring range

Output signal (configurable on site):
IW = pulse output (Push/Pull), cube plug
IR = pulse output (Push/Pull), round plug M12x1
M5 = frequency converter (programmable, 0...2 kHz)
M6 = switch output (limit, programmable)
M7I = with F/I-converter (output 4…20 mA)
M7U = with F/ U-converter (output 0…10 V)
HT = high temperature version round plug M12x1

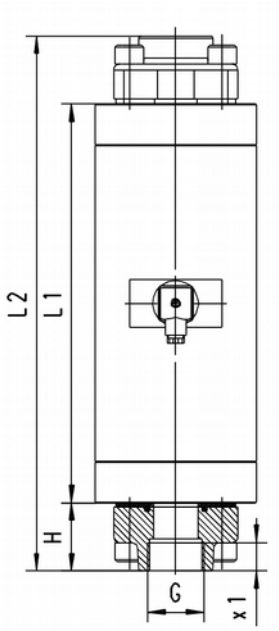
Options:
0 = without
1 = high temperature version up to 150 °C, 30 cm detached electronics (with output HT only)
2 = encapsulated ball bearings in case of pressure fluctuations / -impacts
9 = please specify in plain text

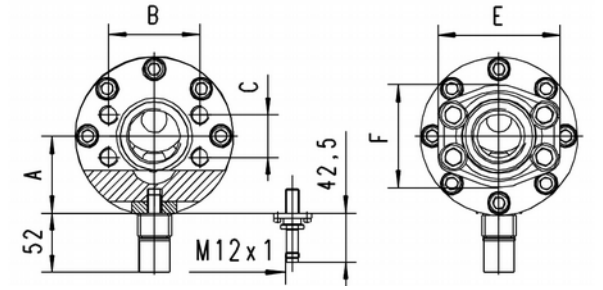
Dimensions:

Female thread



SAE flange with female thread





Accessory:

M12 plug connector with PVC cable:
SM12.4, 4-pole
2, 5 or 10 m length,
straight or angled

Technical Data:

Max. pressure:	
with thread-connection (AL):	160 bar
with SAE flange:	350 bar
Medium-temperature:	–25...+80 °C (optional bis 150 °C)
Accuracy:	± 1% of measured value
Repeatability:	± 0,25%
Medium:	oil or other, non aggressive, self-lubricating products
Power supply:	10–30 VDC
Protection class:	IP65

Size table [mm]:

G	x1	x2	L1	L2	ØD	A	B	C	M	H	E	F
G 1	20	20	220	324	88	49	57,1	27,8	12	52	80	69
G 1 1/4	22	22	285	381	103	55	66,7	31,6	14	48	94	77
G 1 1/2	24	24	340	456	138	66,5	79,4	36,5	16	58	106	89
G 2	33	35	405	553	168	77,3	96,8	44,4	20	74	135	116
G 2 1/2	35	42	475	633	203	86	123,8	58,7	24	79	166	150

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