

Positive Displacement Gear Meter

Ideal for flow measurement of low and medium viscosity fluids (solvents, polyurethanes, oils and other non-abrasive fluids) at very low flow rates, as in chemical injection.

Applications:

AW Gear Meters offers these spur gear positive displacement flow meters that are suitable for a variety of industrial applications, including:

- Chemical injection skids
- Fuel & solvent measurement
- Liquid seal bead dispensing
- Cylinder position measurement
- Batching
- Low flow applications to 2 cc/min (0.0005 gal/min)

Benefits:

ACCURATE & RELIABLE

This meter has the ability to maintain consistent accuracy despite changing viscosity conditions, with accuracy of +0.5% of reading or better. Low friction gears and bearings allow for accurate measurement of low viscosity fluids, down to 1cP.

RUGGED CONSTRUCTION

This PD meter's solid construction of 316 stainless steel body and stainless steel gears & bearings stand up to the most rugged environments.

FLEXIBLE

Meter may be used in applications requiring bi-directional flow.

SIMPLE TO INSTALL & USE

Installation is easy because there is no need for straight run piping upstream or downstream of the flow meter.



Technical Specifications:

- **Flow range:** 0.0005 to 0.25 gal/min
- **Working pressure:** 5,000 psi
- **Accuracy:** ± 0.5% or better, 10:1, 30cP
- **Repeatability:** ± 0.1%
- **Max Fluid Temperature:** Depends on sensor used, refer to sensor tech. guide
- **Certifications:** ATEX approved, non-sparking, CSA Class 1, Div. 1
- **Bi-directional flow capability**
- **NPT female ports**

Materials of Construction:

- **Body:** 316 Stainless Steel
- **Gear:** Stainless Steel
- **O-Ring:** PTFE
- **Bearings:** Stainless Steel

Meter Type	Range (gal/min)	Impulse/gallon	Impulse/cc	Diameter (inches)	Height (inches)	Weight (lbs)	Ports	Filtration (micron)	Pressure Rating (psi)
JVS-01UF-25-NPT	.0005-.25	151,300	40	3.3	2.2	4	1/4" NPT	<10	5000
JVS-01UF-25-NPT-EX	.0005-.25	151,300	40	3.3	2.2	4	1/4" NPT	<10	5000

Compatible Sensor	Sensor Type	Sensor Features
HUB-40-Ex	Hazardous area rated sensor	CSA/CUS certified pulse output hall effect single sensor
FIP-xx	Meter mounted analog output sensor	3-wire analog output, current or voltage
RT-30Ex	Hazardous area rated flow transmitter	Rate & local display with 4-20mA analog output
MAG-xx	Hall effect single sensor	Frequency output with conduit connection

Products may be subject to change without notice - Contact factory for the most up-to-date product information.

JV-KG

Positive Displacement Spur Gear Flow Meter

Ideal for measuring oil, grease, fuel, polyurethane, brake fluid, Skydrol and other non-abrasive, low- to medium-viscosity lubricating fluids.

Applications:

The units in this line of gear flow meters are designed to maintain consistent accuracy – even in changing viscosity conditions. They have a solid construction and excellent dynamic response.

Reliability combined with accuracy and a large turndown range, make these meters an attractive replacement for older turbine technology.

Features:

- Six flow ranges from 0.003 to 120.0 GPM
- Accuracy: up to 0.5% of reading
- Pressure rating up to 5,000 PSI
- Available in 303 and 316 stainless steel, as well as 6061 aluminum bodies
- Pulse, mA and voltage output sensors available
- Non-intrusive sensors, panel mount displays, and electronic modules available

Benefits:

SIMPLE TO INSTALL & USE

These meters are easy to use and install, since there is no need for straight run piping upstream or downstream of the flow meter.

ACCURATE AND RELIABLE

This meter has the ability to maintain consistent accuracy despite changing viscosity conditions, with accuracy of +0.5% of reading.

RUGGED CONSTRUCTION

The JV-KG's solid construction is offered in Aluminum, 303 and 316 stainless steel bodies.

FLEXIBLE

Flow may be bi-directional, without damage to internal parts and is offered in six different flow ranges (0.003 to 120.0 GPM).

ECONOMIC LOW FLOW METER

The meters produce good resolution and high accuracy at low flow rates, offering an affordable replacement for older turbine technology.



Technical Specifications:

- **Six flow ranges:**
 - 0.003 to 0.8 gpm
 - 0.01 to 2.0 gpm
 - 0.03 to 7.0 gpm
 - 0.05 to 20 gpm
 - 0.5 to 60 gpm
 - 1.0 to 120 gpm
- **Working pressure:** up to 5,000 psi
- **Accuracy:** $\pm 0.5\%$ over 10:1 turndown with 30cP fluid
- **Repeatability:** $\pm 0.1\%$
- **Max Fluid Temperature:**
 - 185°F (meter only, aluminum body);
 - 400°F (stainless steel body)
- **Ports:** NPT; BSPP available – specify upon ordering

Materials of Construction:

- **Body:**
 - JVA – 6061 aluminum
 - JVM – 303 stainless steel
 - JVS – 316 stainless steel
- **Gear and ball bearings:** stainless steel
- **O-Ring:** PTFE; FKM optional
- **Shaft:** 420 C stainless steel
- **Bushings:** tungsten carbide

JV-KG

Positive Displacement Spur Gear Flow Meter

Meter Data:

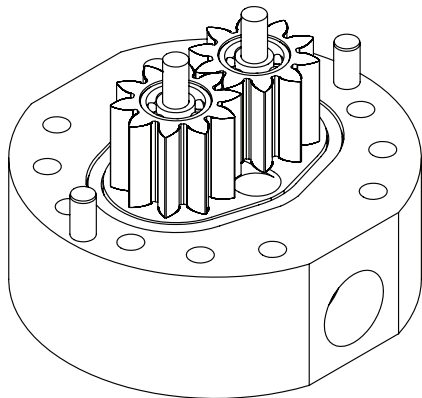
Meter Size	Flow Range (GPM)	Impulses/ Gallon	Impulses/ cc	Diameter (in)	Height (in)	Weight (Lbs / Kg)	Ports	Filtration (microns)	Pressure Rating
JV#-12KG	0.003-0.8	53,000	14.0	3.0"	2.2"	JVA: 1.5 / 0.68 JVM: 3.9 / 1.77 JVS: 3.9 / 1.77	1/4" NPT*	30	5,000 psi
JV#-20KG	0.01-2.0	15,900	4.2	3.3"	2.2"	JVA: 1.9 / 0.86 JVM: 4.9 / 2.22 JVS: 4.9 / 2.22	1/4" NPT*	30	5,000 psi
JV#-30KG	0.03-7.0	6,600	1.7	3.3"	2.6"	JVA: 2.3 / 1.04 JVM: 5.8 / 2.63 JVS: 5.8 / 2.63	1/2" NPT*	30	5,000 psi
JV#-60KG	0.05-20.0	1,800	0.47	4.9"	4.25"	JVA: 8.8 / 3.99 JVM: 18 / 8.16 JVS: 18 / 8.16	3/4" NPT*	30	5,000 psi
JV#-80KL	0.5-60.0	1,600***	0.42	8.4"	5.5"	JVA: 32 / 14.52 JVM: 78 / 35.38 JVS: 78 / 35.38	1-1/4"***	200	5,000 psi
JV#-90KL	1.0-120.0	800***	0.21	8.4"	7.0"	JVA: 37 / 16.78 JVM: 97 / 44.91 JVS: 97 / 44.91	1-1/4"***	200	5,000 psi

- Complete part # by selecting body material as follows:
A=Aluminum, M=303 Stainless Steel, S=316 Stainless Steel

* - NPT port is standard, BSPP is available

** - Through hole for 1-1/4" Code 62 flange connections

*** - Configured for x4 sensor output



1-1/4" Code 62 Flanges:

Code 62 flanges are available for the -80 KL and -90KL meters in 3 materials:

Flange	Weight (Lbs / Kg)
carbon steel	6 / 2.72
303 stainless steel	9 / 4.08
316 stainless steel	9 / 4.08



Recommended Sensors:

Sensor Type	Model	Sensor Features
Single sensor (standard)	HEF-xx	Frequency output
Dual sensor w/ 2x resolution	DH-xx	Single or quadrature frequency output
Hall effect single sensor	MAB-Px	Frequency output, with conduit connection
Meter mounted analog output sensor	FIP-xxx	3-wire analog output, current or voltage
Single sensor	CAPM-xx	Frequency output
High temp sensor	CAPM-15	Separated pickup & amplifier module, good up to 400°F for Stainless Steel
High res quad sensor	QUAD-4	4x resolution, single or quadrature frequency, -80KL & -90KL



SURE FLOW PRODUCTS

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Fax: 248-380-3568

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