



# AW-LAKE

PROCESS FLOW MEASUREMENT



## POSITIVE DISPLACEMENT FLOW METERS INSTRUMENTATION



# JV-BB Positive Displacement Gear Flow Meter

## Common Uses

We improved on our industry-leading JV-KG series of meters with 0.5% accuracy over the full range of the meter, higher resolution, and higher pressure ratings with the release of our JV-BB series. These PD meters were designed for measuring lubricating and non-abrasive fluids with low or medium viscosity. Applications include:

- Chemical injection & dosing systems
- Fuel measurement
- Test stands
- Hydraulic positioning systems
- Coolant & lubrication monitoring



## Technical Specifications

6 Flow Ranges	0.005 to 120 gpm (across all meter sizes)
Measuring Accuracy	±0.5% M.V. over full range with 30cP fluid, ±0.25% M.V. optional with select sensors
Repeatability	± 0.1%
Max. Operating Pressure	up to 6,000 psi
Ports	<u>60BB and smaller</u> : NPT standard, BSPP & bottom manifold mount optional <u>80BB &amp; 90BB</u> : 1-1/4" SAE code 62 flange pattern standard; NPT, JIC & SAE flanges available upon request.
Turndown	up to 150:1
Calibration	7-point calibration

## Materials of Construction

Body	JVA = 7075 Aluminum, JVM = 303 Stainless Steel, or JVS = 316L Stainless Steel
Gears & Bearings	Stainless Steel (DIN 1.4122)
O-Ring	FKM, FFKM, or PTFE
Shaft	402 Stainless Steel
Bolts	Zinc Flake Coated Carbon Steel (Inconel 718 optional)

## Output Options

Choose from a wide variety of pickups, sensors, monitors, and controllers to pair with your gear meter:

- Frequency
- Analog (voltage or 4-20mA)
- Battery, loop, or DC powered displays

# JV-BB Positive-Displacement Gear Flow Meter

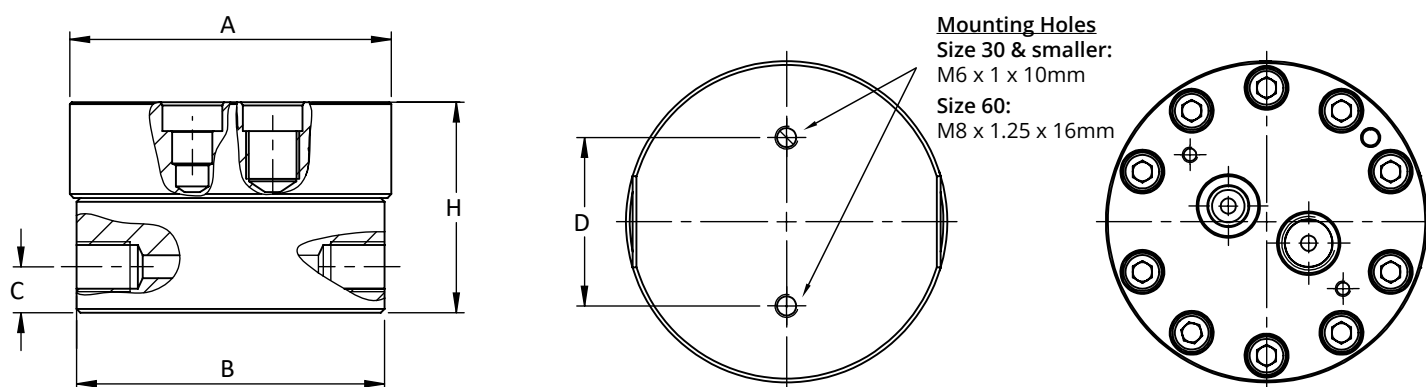
## Meter Data

Meter Size	Flow Range			Resolution*		Ports	Filtration (microns)	Pressure (psi/bar)
	(GPM)	(LPM)	(Gal/Day)	(Impulses/Gal)	(Impulses/CC)			
JV#-12BB	0.005-0.8	0.02-3.0	7.2-1152	106,000	28.0	1/4" NPT	30	6,000/420
JV#-20BB	0.02-2.0	0.1-7.6	28.8-2880	31,800	8.4	1/4" NPT	30	6,000/420
JV#-30BB	0.1-7.0	0.5-26.5	144-10,080	13,200	3.5	1/2" NPT	30	6,000/420
JV#-60BB	0.1-20.0	0.5-75.7	144-28,800	3,600	0.95	3/4" NPT	30	6,000/420
JV#-80BB	0.5-60.0	1.9-227	720-86,400	1,600	0.42	1-1/4" SAE Code 62	200	5,000/345
JV#-90BB	1.0-120.0	3.8-454	1440-172,800	800	0.21	1-1/4" SAE Code 62	200	5,000/345

# - Complete part # by selecting body material as follows: M=303 Stainless Steel, S=316 Stainless Steel, A= Aluminum. \* Figures shown represent resolution when using dual pickup sensor for 12BB to 60BB and x4 sensors for 80BB & 90BB.

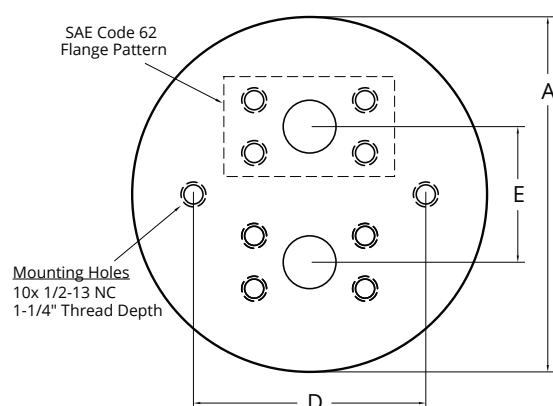
## Meter Dimensions

### 12BB through 60BB



Meter Size	Dimensions						Weights (Lbs)		
	A	B	C	D	E	H	JVS	JVM	JVA
JV#-12BB	3.0"	2.9"	0.47"	1.7"	--	2.2"	3.6	3.6	1.8
JV#-20BB	3.3"	3.2"	0.47"	1.7"	--	2.2"	4.9	4.9	2.7
JV#-30BB	3.3"	3.2"	0.59"	1.7"	--	2.7"	6.4	6.4	2.9
JV#-60BB	5.0"	4.9"	0.75"	2.4"	--	4.3"	18.8	18.8	9.1
JV#-80BB	8.4"	8.4"	--	5.5"	3.2"	5.5"	78.0	78.0	31.0
JV#-90BB	8.4"	8.4"	--	5.5"	3.2"	7.0"	97.0	97.0	66.0

### 80BB & 90BB

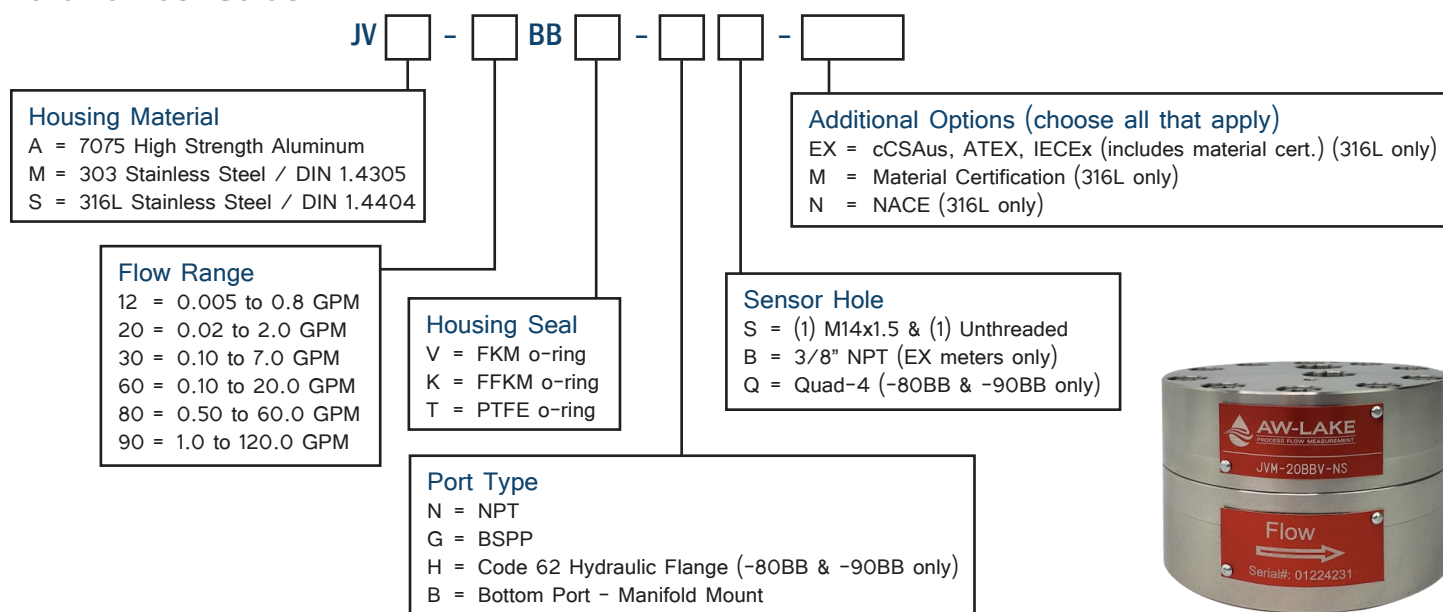


3D STEP Models are available upon request of factory.  
Products may be subject to change without notice. Contact factory for the most up-to-date product information.



# JV-BB Positive-Displacement Gear Flow Meter

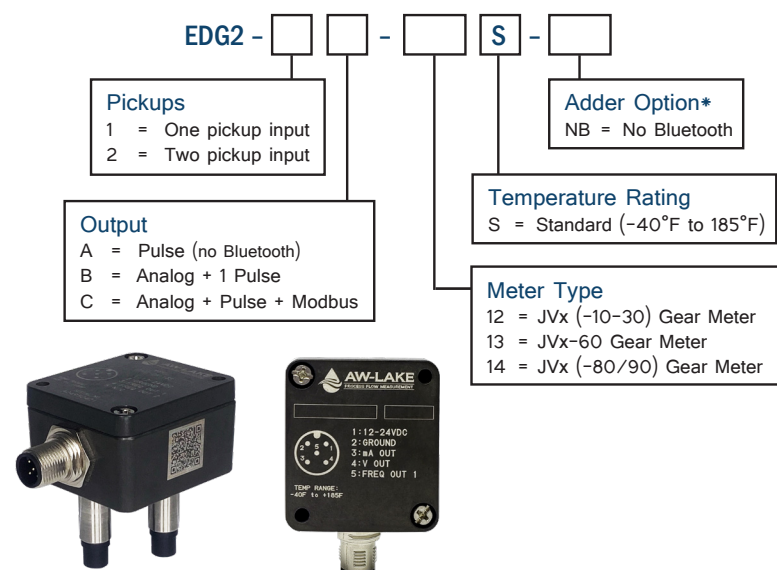
## Part Number Guide



## Recommended Sensors

AW-Lake offers a wide selection of Sensors/Pickups and Monitors/Controllers to optimize flow measurement and deliver your flow data where you need it and in the format you need it.

### JV-BB Standard Sensor: EDGE Sensor



### Additional Electronics Options:

JV-BB meters are also compatible with a range of other pickups, displays, and controllers for high temperature and EX-rated environments.

Visit [AW-Lake.com](http://AW-Lake.com) for more information.



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Contact factory for the most up-to-date product information.

# JV-TC Positive Displacement Gear Flow Meter

## Common Uses

JV-TC positive displacement flow meters build upon our 40+ years of excellence in measuring non-lubricating and filled fluids by improving gear/shaft design, increasing pressure ratings, and improving flushability. These improvements, along with the standard 7-point calibration and new EDGE sensor give you a 0.5% accurate meter across the full flow range. Practical applications include:

- Filling and dosing systems
- Paint shops and delivery systems
- Polyurethane systems
- Multiple-component mixing systems
- Adhesive dispensing systems
- Hydraulic systems



## Technical Specifications

5 Flow Ranges	0.001 to 20 gpm (across all meter sizes)
Measuring Accuracy	±0.5% M.V. over full range with 30cP fluid, ±0.25% M.V. optional with select sensors
Repeatability	± 0.1%
Max. Operating Pressure	up to 6,000 psi
Ports	NPT standard, BSPP & bottom manifold mount optional
Turndown	up to 400:1
Calibration	7-point calibration

## Materials of Construction

Body	JVM = 303 Stainless Steel or JVS = 316L Stainless Steel
Gears	Stainless Steel (DIN 1.4122)
O-Ring	FKM, FFKM, or PTFE
Bearings & Shafts	Tungsten Carbide
Bolts	Zinc Flake Coated Carbon Steel (Inconel 718 optional)

## Output Options

Choose from a wide variety of pickups, sensors, monitors, and controllers to pair with your gear meter:

- Frequency
- Analog (voltage or 4-20mA)
- Battery, loop, or DC powered displays

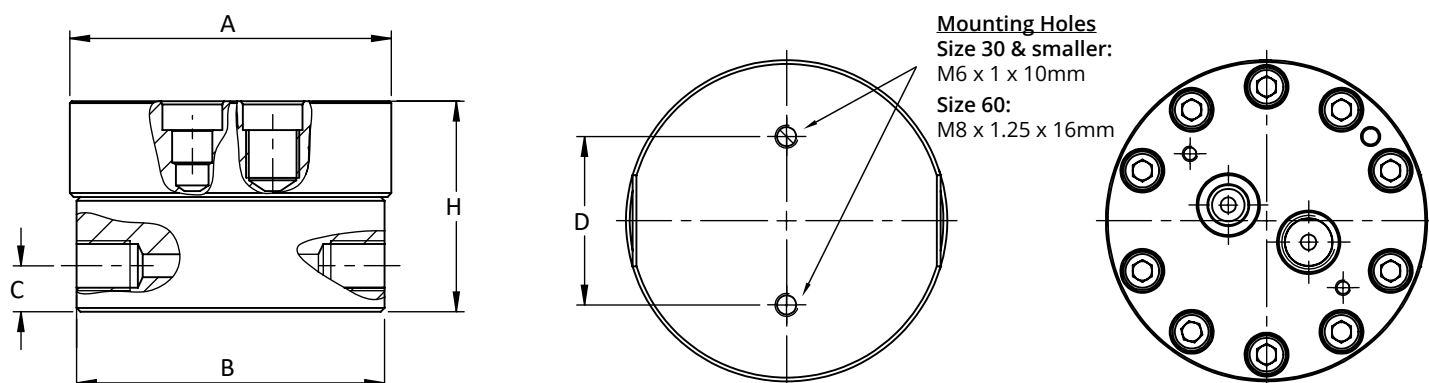
# JV-TC Positive Displacement Gear Flow Meter

## Meter Data

Meter Size	Flow Range			Resolution*		Ports	Filtration (microns)	Pressure (psi/bar)
	(GPM)	(LPM)	(Gal/Day)	(Impulses/Gal)	(Impulses/CC)			
JV#-10TC	0.001-0.5	0.004-1.9	1.4-720	200,600	53.0	1/4" NPT	120	6,000/420
JV#-12TC	0.005-0.8	0.02-3.0	7.2-1152	106,000	28.0	1/4" NPT	120	6,000/420
JV#-20TC	0.02-2.0	0.08-7.6	28.8-2880	31,800	8.4	1/4" NPT	120	6,000/420
JV#-30TC	0.1-7.0	0.38-26.5	144-10,080	13,200	3.5	1/2" NPT	120	6,000/420
JV#-60TC	0.1-20.0	0.38-75.7	144-28,800	3,600	0.95	3/4" NPT	200	6,000/420

# - Complete part # by selecting body material as follows: M=303 Stainless Steel, S=316 Stainless Steel. \* Figures shown represent resolution when using dual pickup sensor.

## Meter Dimensions

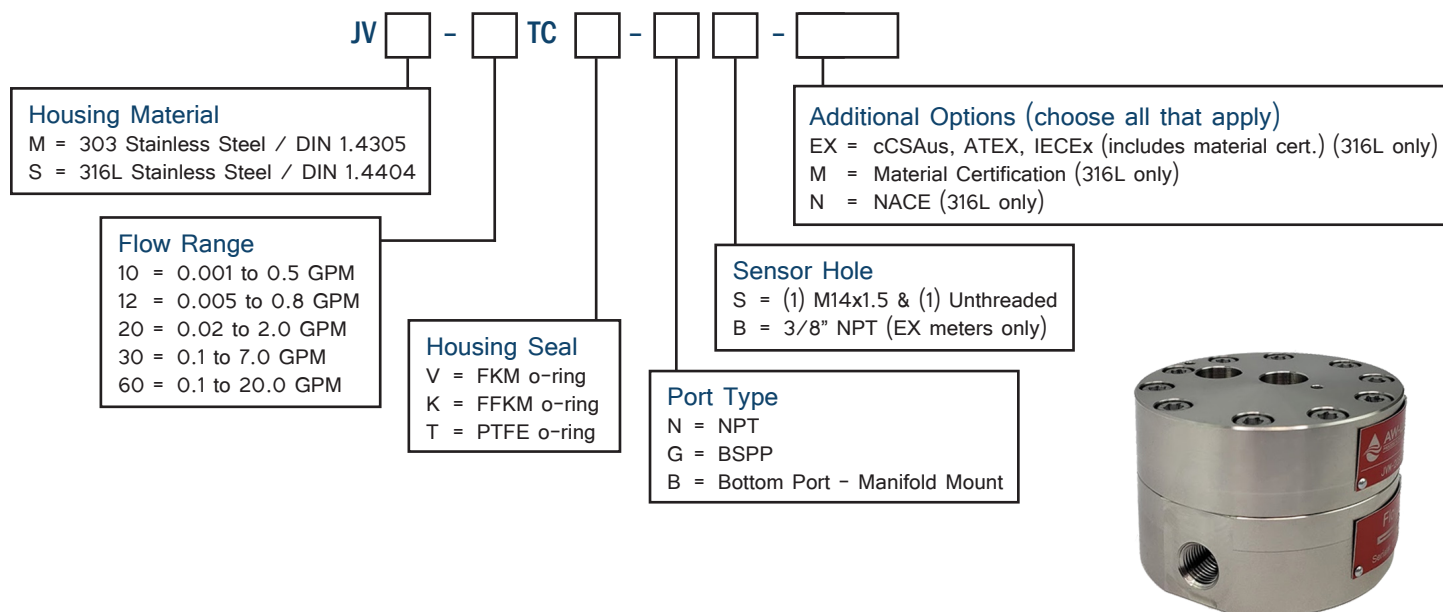


Meter Size	Dimensions					Weights	
	A	B	C	D	H	(Lbs)	(Kg)
JV#-10TC	3.0"	2.9"	0.47"	1.7"	2.2"	2.9	1.3
JV#-12TC	3.0"	2.9"	0.47"	1.7"	2.2"	3.6	1.6
JV#-20TC	3.3"	3.2"	0.47"	1.7"	2.2"	4.9	2.2
JV#-30TC	3.3"	3.2"	0.59"	1.7"	2.7"	6.4	2.9
JV#-60TC	5.0"	4.8"	0.75"	2.4"	4.3"	18.8	8.5

3D STEP Models are available upon request of factory.  
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# JV-TC Positive-Displacement Gear Flow Meter

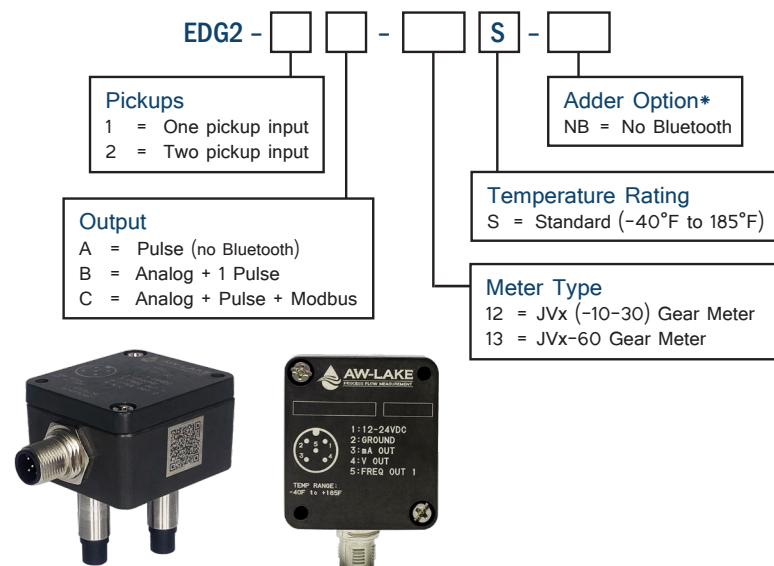
## Part Number Guide



## Recommended Sensors

AW-Lake offers a wide selection of Sensors/Pickups and Monitors/Controllers to optimize flow measurement and deliver your flow data where you need it and in the format you need it.

### JV-TC Standard Sensor: EDGE Sensor



### Additional Electronics Options:

JV-TC meters are also compatible with a range of other pickups, displays, and controllers for high temperature and EX-rated environments.

Visit [AW-Lake.com](http://AW-Lake.com) for more information.



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# JV-UF Positive Displacement Gear Flow Meter

## Common Uses

A completely new Series for AW-Lake, the JV-UF is designed for low viscosity fluids (solvents, scale inhibitor, methanol, DEF) in Stainless Steel bodies (303 and 316SS). We reduced the clearances around the gears to prevent fluid from slipping past and now measure flows as low as 0.0005 gpm with a 5cP fluid (we can measure fluids below 1.0 cP) and as high as 20 gpm. The JV-UF meters pair with our existing sensors to provide you with the data you need. Common applications include:

- Chemical, methanol, and fuel injection & dosing systems
- Test stands
- Hydraulic positioning systems
- Coolant & lubrication monitoring



## Technical Specifications

5 Flow Ranges	0.0005 to 20 gpm (across all meter sizes)
Measuring Accuracy	±1.5% M.V. over full range (viscosity ≥ 5cP), ±0.5% M.V. optional with select sensors; ±2.5% M.V. over full range (viscosity ≥ 5cP) for JV-01UF
Repeatability	± 0.05%
Max. Operating Pressure	up to 6,000 psi
Ports	NPT standard, BSPP optional
Turndown	up to 500:1
Calibration	7-point calibration

## Materials of Construction

Body	JVM = 303 Stainless Steel or JVS = 316L Stainless Steel
Gears & Bearings	Stainless Steel (DIN 1.4122)
O-Ring	FKM, FFKM, or PTFE
Shaft	402 Stainless Steel
Bolts	Zinc Flake Coated Carbon Steel (Inconel 718 optional)

## Output Options

Choose from a wide variety of pickups, sensors, monitors, and controllers to pair with your gear meter:

- Frequency
- Analog (voltage or 4-20mA)
- Battery, loop, or DC powered displays

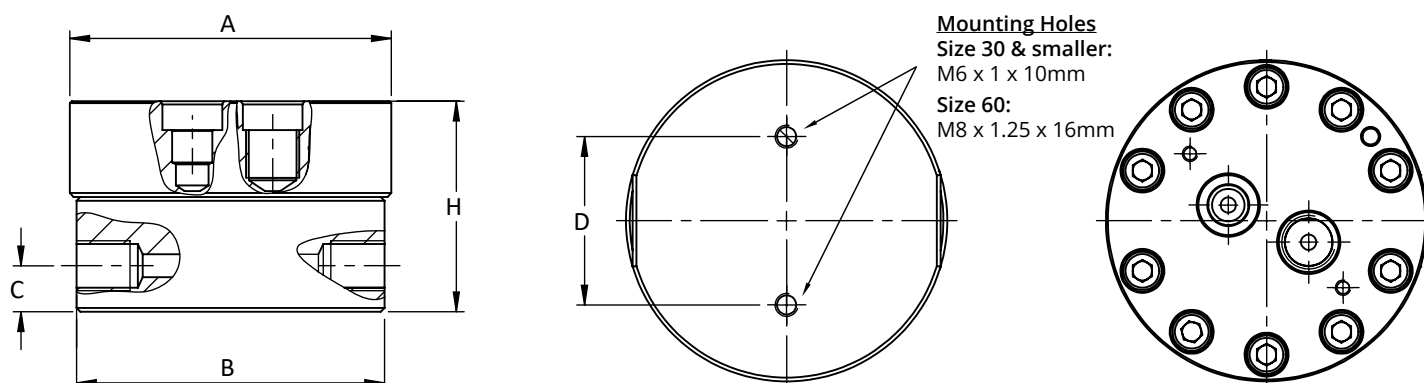
# JV-UF Positive-Displacement Gear Flow Meter

## Meter Data

Meter Size	Flow Range			Resolution*		Ports	Filtration (microns)	Pressure (psi/bar)
	(GPM)	(LPM)	(Gal/Day)	(Impulses/Gal)	(Impulses/CC)			
JV#-01UF	.0005-.25	0.002-1.0	0.72-360	302,600	80.0	1/4" NPT	15	5,000/345
JV#-12UF	0.005-0.8	0.02-3.0	7.2-1152	106,000	28.0	1/4" NPT	30	6,000/420
JV#-20UF	0.02-2.0	0.1-7.0	29-2880	31,800	8.4	1/4" NPT	30	6,000/420
JV#-30UF	0.1-7.0	0.5-25.0	144-10,080	13,200	3.5	1/2" NPT	30	6,000/420
JV#-60UF	0.1-20.0	0.5-75.0	144-28,800	3,600	0.95	3/4" NPT	30	6,000/420

# - Complete part # by selecting body material as follows: M=303 Stainless Steel, S=316 Stainless Steel. \* Figures shown represent resolution when using dual pickup sensor.

## Meter Dimensions



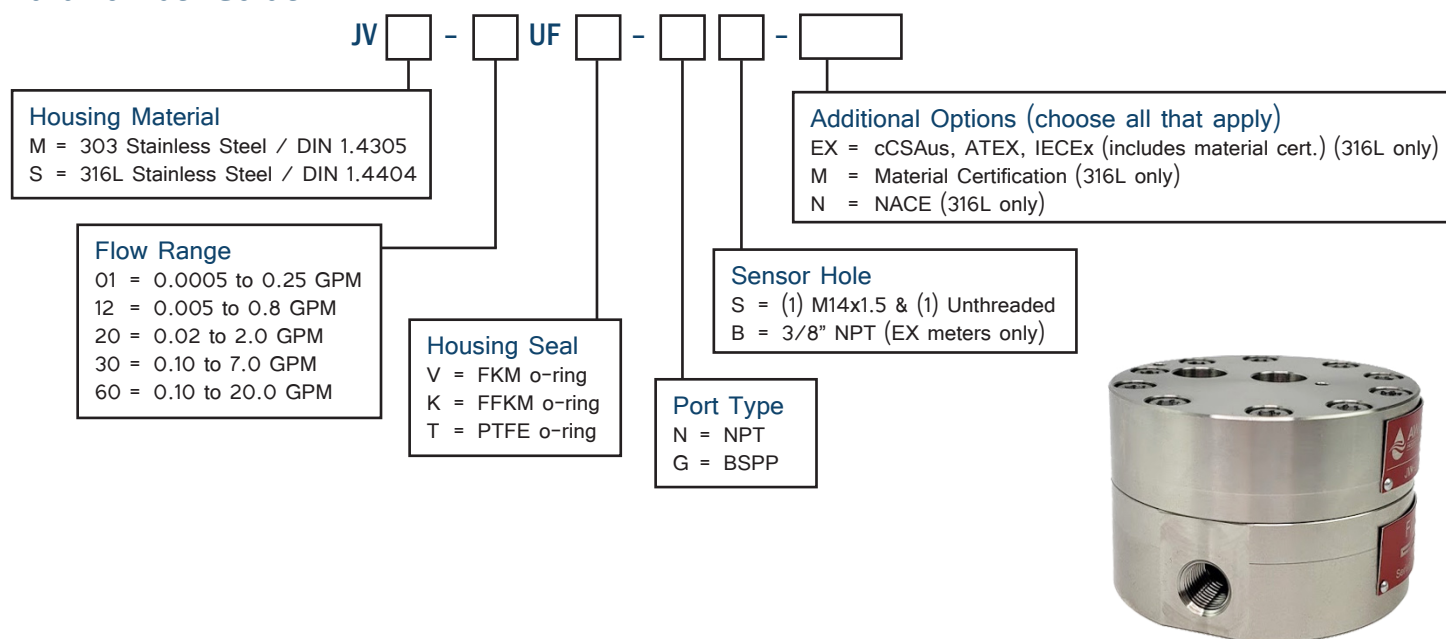
Meter Size	Dimensions					Weights (Lbs)		
	A	B	C	D	H	JVS	JVM	JVA
JV#-01UF	3.3"	3.2"	0.47"	1.7"	2.2"	3.6	3.6	1.8
JV#-12UF	3.0"	2.8"	0.47"	1.7"	2.2"	4.9	4.9	2.7
JV#-20UF	3.3"	3.2"	0.47"	1.7"	2.2"	6.4	6.4	2.9
JV#-30UF	3.3"	3.2"	0.59"	1.7"	2.6"	18.8	18.8	9.1
JV#-60UF	4.9"	4.7"	0.75"	2.4"	4.2"	78.0	78.0	32.0

3D STEP Models are available upon request of factory.  
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# JV-UF Positive-Displacement Gear Flow Meter

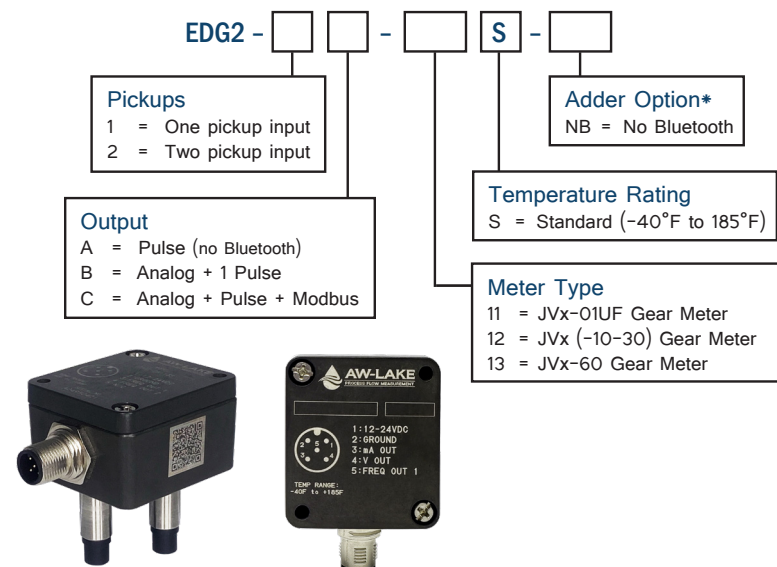
## Part Number Guide



## Recommended Sensors

AW-Lake offers a wide selection of Sensors/Pickups and Monitors/Controllers to optimize flow measurement and deliver your flow data where you need it and in the format you need it.

### JV-UF Standard Sensor: EDGE Sensor



### Additional Electronics Options:

JV-UF meters are also compatible with a range of other pickups, displays, and controllers for high temperature and EX-rated environments.

Visit [AW-Lake.com](http://AW-Lake.com) for more information.



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# JVH High Pressure Positive Displacement Flow Meter

## Common Uses

Designed for use in systems rated up to 15,000 psi (1035 bar), the JVH meters are well suited for oils, fuels, additives, and chemicals in hazardous areas. JVH meters come standard with inconel bolts for added strength and better corrosion resistance. The internal design has reduced space between the gears and measuring chamber to reduce slippage and improve the low flow performance of the meter. Practical applications include:

- Offshore production platforms, i.e. chemical injection
- Hydraulic power units
- Gas dehydration systems
- Chemical processing plants



## Technical Specifications

5 Flow Ranges	0.001 to 20 gpm (across all meter sizes)
Measuring Accuracy	±0.5% M.V. over full range with 30cP fluid, ±0.25% M.V. optional with select sensors
Repeatability	±0.1%
Max. Operating Pressure	up to 15,000 psi   1035 bar
Ports	Autoclave, Medium Pressure
Turndown	up to 400:1
Calibration	7-point calibration

## Materials of Construction

Body	316L Stainless Steel
Gears	Stainless Steel (DIN 1.4122)
Bearings	Stainless Steel Ball Bearings or Tungsten Carbide Sleeve Bushing
O-Ring	FKM or FFKM
Shafts	402 Stainless Steel or Tungsten Carbide
Bolts	Inconel 718

## Output Options

Choose from a wide variety of pickups, sensors, monitors, and controllers to pair with your gear meter:

- Frequency
- Analog (voltage or 4-20mA)
- Battery, loop, or DC powered displays

# JVH High Pressure Positive Displacement Flow Meter

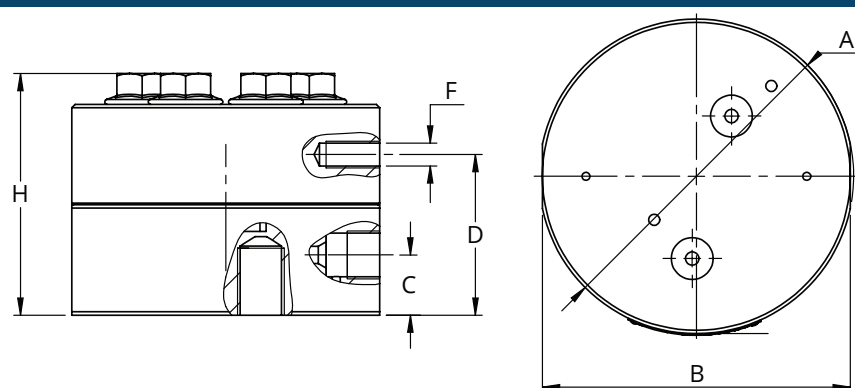
## Meter Data

Meter Size	Flow Range			Resolution*		Ports (Med Pres Autoclave)	Filtration (microns)		Pressure (psi/bar)
	(GPM)	(LPM)	(Gal/Day)	(Impulses/Gal)	(Impulses/CC)		BB	TC	
JVHS-10	0.001-0.5	0.005-2.0	1.4-720	200,600	53.0	3/8"	30	120	15,000/1035
JVHS-12	0.005-0.8	0.02-3.0	7.2-1152	106,000	28.0	3/8"	30	120	15,000/1035
JVHS-20	0.02-2.0	0.1-7.0	28.8-2880	31,800	8.4	3/8"	30	120	15,000/1035
JVHS-30	0.1-7.0	0.5-25.0	144-10,080	13,200	3.5	3/8"	30	120	15,000/1035
JVHS-60	0.1-20.0	0.5-75.0	144-28,800	3,600	0.95	3/4"	30	200	7,500/520

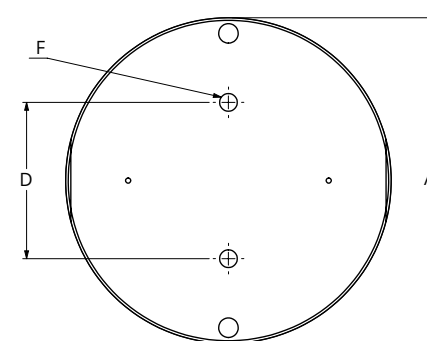
\* Figures shown represent resolution when using dual pickup sensor.

## Meter Dimensions

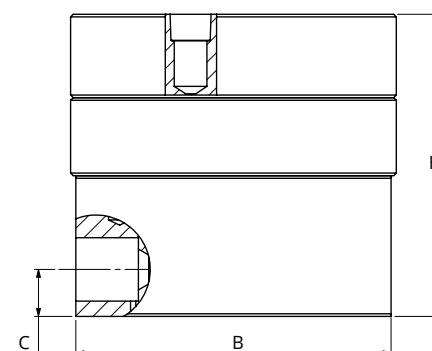
JVHS-10 through JVHS-30



JVHS-60



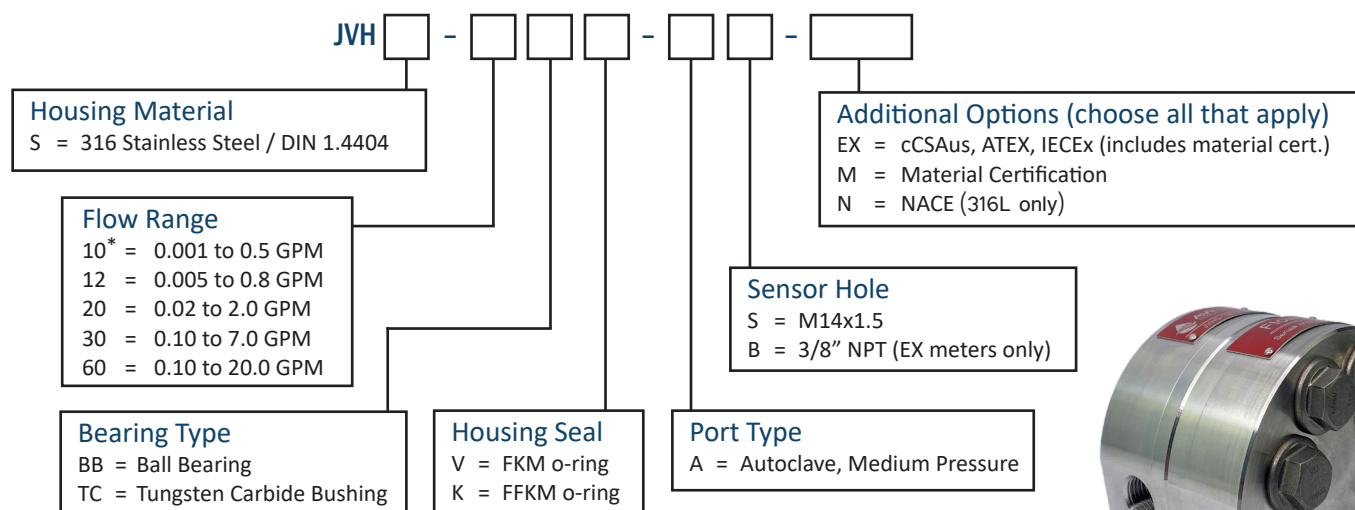
Meter Size	Dimensions						Weights	
	A	B	C	D	F (mounting hole)	H	(Lbs)	(Kg)
JVHS-10	3.7"	3.6"	0.71"	1.9"	M6x1x10mm	2.8"	7.5	3.4
JVHS-12	3.7"	3.6"	0.71"	1.9"	M6x1x10mm	2.8"	7.5	3.4
JVHS-20	3.7"	3.6"	0.71"	1.9"	M6x1x10mm	2.8"	7.5	3.4
JVHS-30	3.7"	3.6"	0.71"	2.4"	M6x1x10mm	3.3"	8.6	3.9
JVHS-60	5.0"	4.8"	0.71"	2.4"	M8x1x16mm	4.6"	24.5	11.1



3D STEP Models are available upon request of factory.  
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# JVH High Pressure Positive Displacement Flow Meter

## Part Number Guide



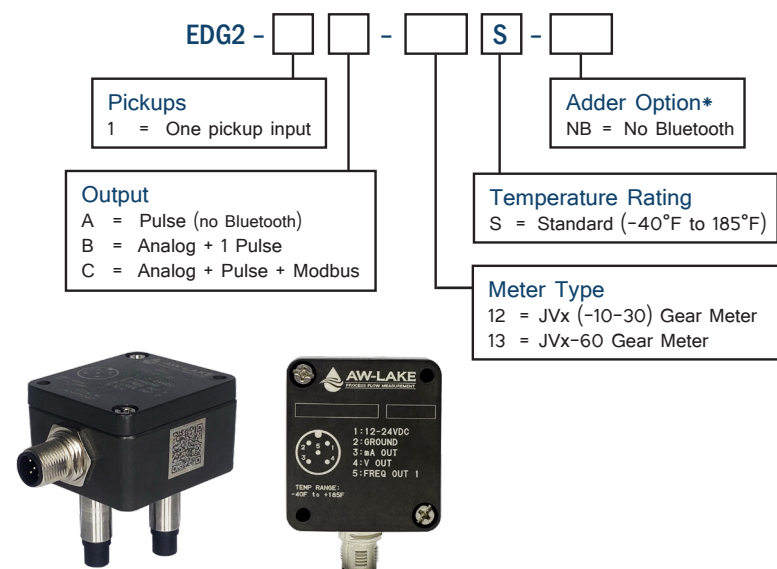
\* JVHS-10 size meter only available with Tungsten Carbide Bushing.



## Recommended Sensors

AW-Lake offers a wide selection of Sensors/Pickups and Monitors/Controllers to optimize flow measurement and deliver your flow data where you need it and in the format you need it.

### JVH Standard Sensor: EDGE Sensor



### Additional Electronics Options:

JVH meters are also compatible with a range of other pickups, displays, and controllers for high temperature and EX-rated environments.

Visit [AW-Lake.com](http://AW-Lake.com) for more information.



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# NJECT-05-2500 CHEMICAL INJECTION FLOW METER

Specifically Designed for Chemical Injection Applications in Onshore Oil Fields.



## TECHNICAL SPECIFICATIONS

### Measuring Accuracy

± 0.5%

### Repeatability

± 0.1%

### Duty Cycle

Works with standard injection pumps from 50 to 200 gallons/day

### Maximum Operating Pressure

Up to 2,500 psi (172 bar)\*

\*Consult factory for other pressures.

### Fluid Temperature Range

-40 to 175°F

### Resolution

100,000 pulses/gal

### Ports

1/4" female NPT

### Weight

3.9 lbs

### Filtration

120 microns, 120 mesh

## BENEFITS

### Assured Accuracy

Each flow meter is individually calibrated and shipped with a calibration certificate.

### Sealed Electronics

Completely sealed integral sensor keeps electronics safe from environmental forces.

### Economic Low Flow Meter

The meter produces good resolution and high accuracy at low flow rates, offering an affordable option for onshore chemical injection applications.

### Rugged Construction

The sturdy 316 stainless steel construction of this gear meter provides superior corrosion resistance and a longer service life.

### Fast Response Time

This meter can handle short pump shot times (<1 sec) and remain accurate.

## MATERIALS OF CONSTRUCTION

Body	316L Stainless Steel
Gears	Stainless Steel
Bearing & Shaft	Tungsten Carbide
O-Ring	PTFE
Bolts	316 Stainless Steel
Cable Gland	Stainless Steel

## INTEGRAL SENSOR

### Supply Voltage

8 to 30 V DC, regulated

### Frequency Range

2 to 1,000 Hz

### Electrical Connection

Shielded 10-foot PVC cable with flying leads for easy hookup

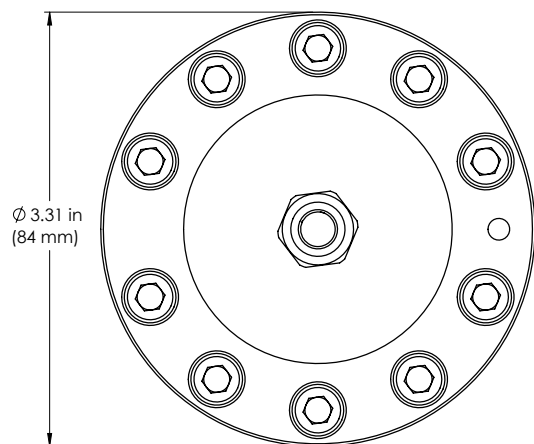
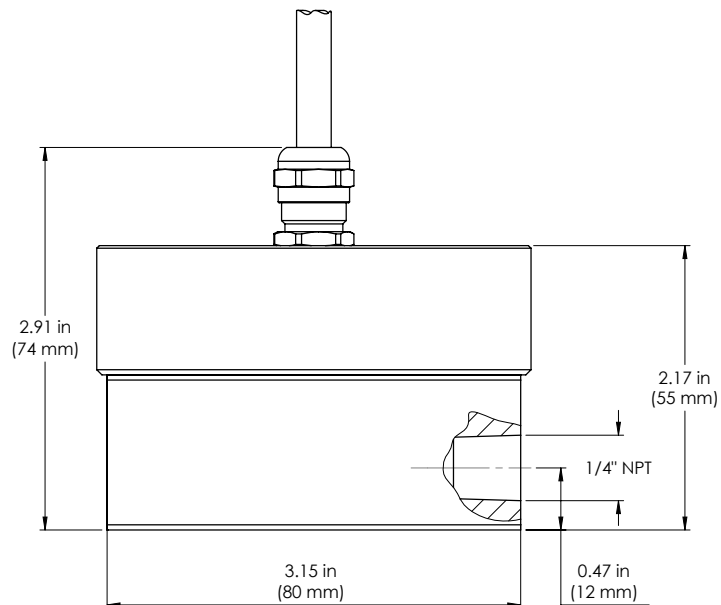
### Protection Class

IP 67

# NJECT-05-2500 CHEMICAL INJECTION FLOW METER

*Specifically Designed for Chemical Injection Applications in Onshore Oil Fields.*

## METER DIMENSIONS

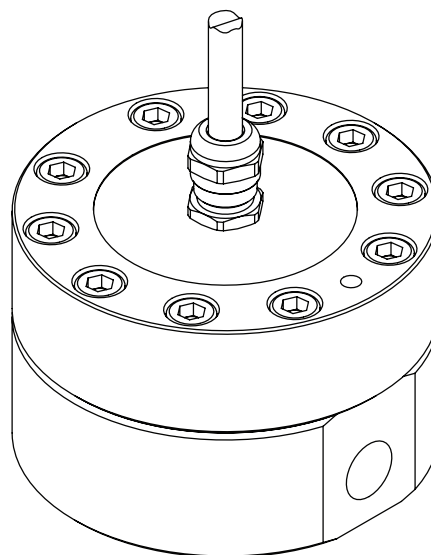


## DUTY CYCLE LOOKUP CHART SAMPLE

Minimum Instantaneous Flow Rate: 5 gal/day

Pump Speed: 100 gal/day

Dosing Rate (gal/day)	Duty Cycle	Run Time (seconds/min)
0.1	0%	0.06
0.5	1%	0.3
1	1%	0.6
2	2%	1.2
3	3%	1.8
4	4%	2.4
5	5%	3.0



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



# SLG POSITIVE DISPLACEMENT SPUR GEAR METER

*Ideal for measuring paints & coatings, especially where robotics are utilized or when space is limited.*



## APPLICATIONS

In production environments like the automotive industry, a lot of pressure is on line components. While performing under a variety of harsh, fast-paced conditions, flow meters in particular have to be rugged, accurate, and easy to install.

AW-Lake exceeds these demands with its SLG Series Positive Displacement Flow Meters. These

stainless steel meters feature small, light bodies, perfect for installation on robotic arms and in other tight areas. Flow meter construction incorporates virtually no "dead space," which allows for extremely efficient flush cycles and worry-free color changes.

## TECHNICAL SPECIFICATIONS

### Measuring Accuracy

± 0.5% over 10:1 turndown with 30cP fluid

### Repeatability

± 0.1%

### Flow Measuring Range

0.005 to 0.8 gpm  
0.02 to 2.0 gpm

**Maximum Operating Pressure**  
up to 2,000 psi

**Maximum Fluid Temperature**  
350°F (180°C)

### Ports

Bottom ported through hole or 1/8" BSPP – specify upon ordering

## BENEFITS

### Strong, Compact Design

The SLG's solid stainless steel construction and compact size make this meter ideal for robotic applications where there is limited space, weight restrictions and vibration from movement.

### 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.

### Flexible

Meter may be used in applications requiring bi-directional flow, and is offered in two different flow ranges (0.005 to 0.8 gal/min and 0.02 to 2.0 gal/min).

## MATERIALS OF CONSTRUCTION

<b>Body</b>	JVS: 316 stainless steel (2,000 psi max)
<b>Gears</b>	Stainless Steel, DIN 1.4122
<b>Seals</b>	JVS: PTFE O-ring
<b>Bearings &amp; Shaft</b>	Tungsten Carbide

## RECOMMENDED SENSORS

Sensor Type	Model	Sensor Features
Single sensor	CAPM-30	Intrinsically safe, frequency output (when used with a barrier)
Fiber Optic System (includes the following:)	FOP 30/S	
Fiber optic sensor	FOP-30	Fully isolated optical signal, intrinsic safe
Light-to-frequency converter	OPTV-20	Converts optical output to frequency output
Standard heavy-duty fiber optic cable	Fiber optic cable	Available in 30, 40, 60 & 100 foot lengths

# SLG POSITIVE DISPLACEMENT SPUR GEAR METER

*Ideal for measuring paints & coatings, especially where robotics are utilized or when space is limited.*

## METER DATA

Meter Size	Flow Range (GPM)	Impulses/ Gallon	Impulses/ cc	Weight (Lbs / Kg)	Ports	Filtration (microns)	Pressure Rating
JVS-12SLGS	0.005-0.8	52,990	14.0	2.75 / 1.25	1/8" BSPP	120	2,000 psi
JVS-12SLGFS	0.005-0.8	52,990	14.0	2.75 / 1.25	6 mm (not threaded)	120	2,000 psi
JVS-20SLGS	0.02-2.0	15,900	4.2	3.0 / 1.36	1/8" BSPP	120	2,000 psi
JVS-20SLGFS	0.02-2.0	15,900	4.2	3.0 / 1.36	6 mm (not threaded)	120	2,000 psi



**A COMMON APPLICATION FOR THE SLG GEAR METER IS IN ROBOTIC PAINT LINES IN THE AUTOMOTIVE INDUSTRY.**

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

# JVK-60E-740 POSITIVE DISPLACEMENT SPUR GEAR METER

*Ideal for measuring chemicals, including the strongest of chemicals such as acid, caustic-based fluids and corrosives.*



## APPLICATIONS

Harsh chemical environments call for special products. That's why AW-Lake developed this flow meter, specifically designed for the chemical dispensing industry. Machined of tough thermoplastic and made to provide years of service, these flow meters stand up to the strongest chemicals, including acids, caustic-based fluids and corrosives.

## TECHNICAL SPECIFICATIONS

### Measuring Accuracy

± 1.0% over 10:1 turndown with 30cP fluid

### Repeatability

± 0.2%

### Flow Measuring Range

0.1 to 7.0 gpm

### Maximum Operating Pressure

up to 500 psi

### Maximum Fluid Temperature

50°F to 110°F (10°C to 43°C)

### Ports

1/2 Female NPT

## BENEFITS

### Simple & Easy to 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.

### Chemical Resistant

This meter is constructed of thermoplastic materials that are safe for use with a wide variety of acids and chemicals.

### Flexible

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

## MATERIALS OF CONSTRUCTION

Body	Kynar® (PVDF)
Gears	PTFE
Seals	PTFE
Bearings	Ceramic (Al <sub>2</sub> O <sub>3</sub> )

## RECOMMENDED SENSORS

Sensor Type	Model	Sensor Features
Meter mounted analog output sensor	FIP-IRS	3-wire analog output, current or voltage
Infrared Optical Sensor	IR-Px	Sinking (IR-PA) or sourcing (IR-PB) pulse output

# JVK-60E-740 POSITIVE DISPLACEMENT SPUR GEAR METER

*Ideal for measuring chemicals, including the strongest of chemicals such as acid, caustic-based fluids and corrosives.*

## METER DATA

Meter Size	Flow Range (GPM)	Impulses/ Gallon	Impulses/ cc	Diameter (in)	Height (in)	Weight (Lbs / Kg)	Ports	Filtration (microns)	Pressure Rating
JVK-60E-740	0.1-7.0	1,800	0.47	4.5"	3.36"	4.0 / 1.77	1/2" NPT	120	500 psi

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

# SRZ-TC Helical Positive Displacement Flow Meter

## Common Uses

SRZ-TC helical PD flow meters with tungsten carbide sleeve bushings were designed for measuring high viscosity, abrasive, and filled fluids as well as lubricating and non-lubricating fluids. Temperature fluctuations and the resulting change in viscosity of the fluid only marginally affect the measuring accuracy of these helical gear flow meters. Practical applications include:

- Polyurethanes and polymers
- Adhesives and sealants
- Petrochemical products
- Light and heavy fuel oil



## Technical Specifications

3 Flow Ranges	0.1 to 10.6 gpm   0.26 to 26.4 gpm   1.1 to 105.7 gpm
Measuring Accuracy	±0.5% over full range with 30cP fluid
Repeatability	± 0.05%
Max. Resolution	32,247 pulses/gallon   3.5 pulses/cc
Max Operating Pressure	4,500 psi   315 bar
Fluid Temperature	-40°F to 302°F (-40°C to 150°C)
Ports	NPT standard, BSPP optional
Turndown	100:1
Calibration	7-point logarithmic calibration

## Materials of Construction

Body	303 Stainless Steel or 316L Stainless Steel
Helical Gears	Stainless Steel (DIN 1.4122) (QPQ coating)
Index Gear	Stainless Steel (DIN 1.4122)
O-ring	FKM or PTFE
Sleeve Bushing & Shafts	Tungsten Carbide
Bolts	Zinc Flake Coated Carbon Steel

## Output Options

Choose from a wide variety of pickups, sensors, monitors, and controllers to pair with your gear meter:

- Frequency
- Analog (voltage or 4-20mA)
- Battery, loop, or DC powered displays



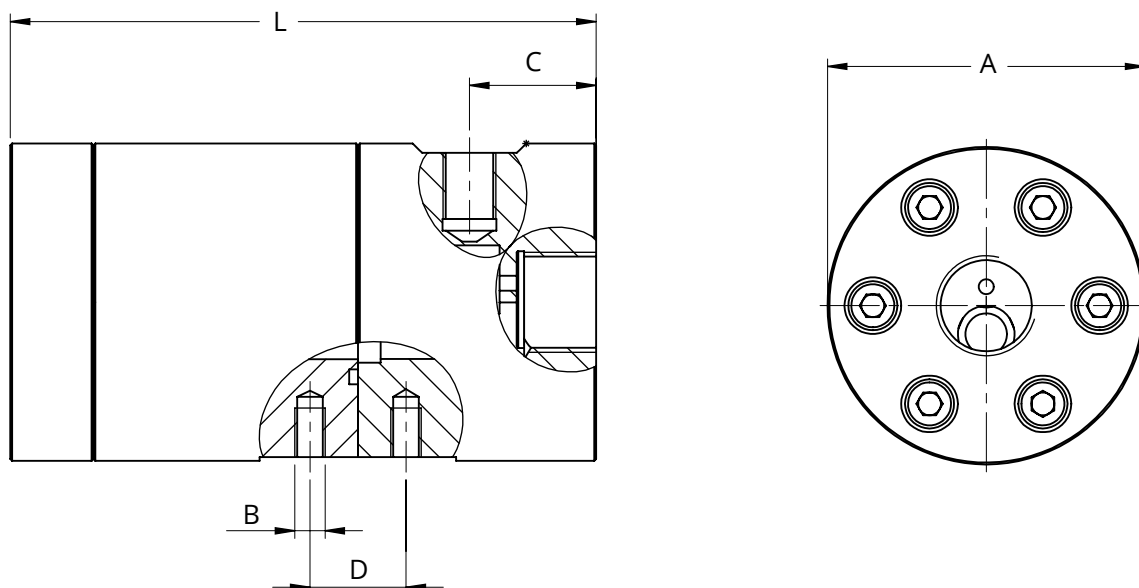
# SRZ-TC Helical Gear Flow Meter

## Meter Data

Meter Size	Flow Range		Resolution			Ports	Filtration	Pressure	
	(GPM)	(LPM)	(Impulses/Gal)	(Impulses/L)	(Impulses/cc)			(psi)	(bar)
SRZ#-40TC	0.1-10.6	0.4-40	32,247	3,500	3.5	¾" NPT	200	4,500	315
SRZ#-100TC	0.26-26.4	1.0-100	3,214	850	0.85	1" NPT	300	3,600	250
SRZ#-400TC	1.1-105.7	4.0-400	810	214	0.214	1½" NPT	300	2,900	200

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

## Meter Dimensions



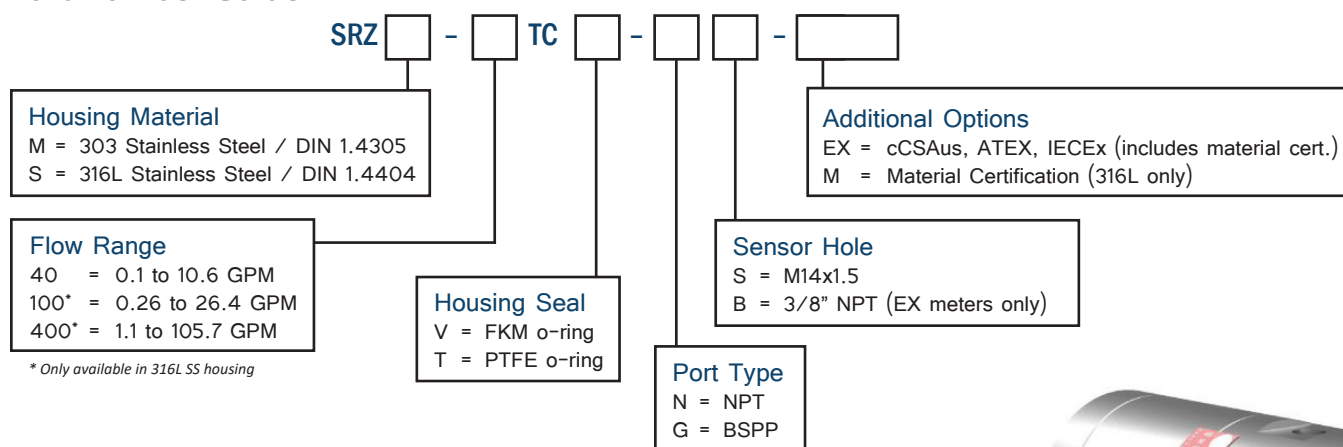
Meter Size	Dimensions					Weights	
	A	B	C	D	L	(Lbs)	(Kg)
SRZ#-40TC	3.4" (85mm)	M8	1.3" (33.5mm)	1.0" (25mm)	6.1" (155mm)	13.7	6.2
SRZ#-100TC	4.3" (109mm)	M10	2.1" (53mm)	1.7" (44mm)	8.7" (221mm)	33.1	15.0
SRZ#-400TC	5.3" (134mm)	M12	2.4" (60mm)	3.2" (80mm)	12.5" (318mm)	75.0	34.0

3D STEP Models are available upon request of factory.  
Products may be subject to change without notice. Contact factory for the most up-to-date product information.



# SRZ-TC Helical Gear Flow Meter

## Part Number Guide



## Electronics Options

AW-Lake offers a wide selection of Sensors/Pickups and Monitors/Controllers to optimize flow measurement and deliver your flow data where you need it and in the format you need it:

- Analog (Voltage & 4-20mA available)
- Frequency
- Modbus®
- HART®
- Bluetooth®
- Electronic Displays (Local & Remote Mount)
- Certified Units (UL, cCSAus, ATEX, IECEx)
- Wireless Monitoring (Radio Frequency)

Refer to website for more information.



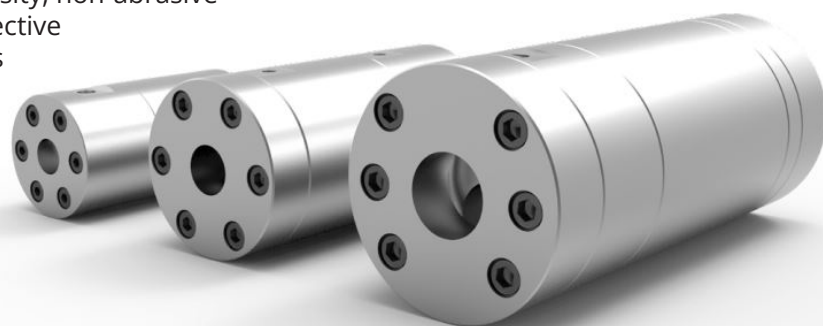
Products may be subject to change without notice.  
Contact factory for the most up-to-date product information.

# SRZ-BB Helical Positive Displacement Flow Meter

## Common Uses

SRZ-BB helical PD flow meters with stainless steel housing and ball bearings were designed for measuring lower viscosity, non-abrasive fluids, such as in lubrication systems. The cost-effective bearing design and extended tolerances make this meter well suited to applications that include:

- Hydraulic test stands
- Lubrication monitoring systems
- Water/Glycol mixtures
- Different fats and oils with varying viscosities



## Technical Specifications

3 Flow Ranges	0.1 to 10.6 gpm   0.26 to 26.4 gpm   1.1 to 105.7 gpm
Measuring Accuracy	±0.5% over full range with 30cP fluid
Repeatability	± 0.05%
Max. Resolution	32,247 pulses/gallon   3.5 pulses/cc
Max. Operating Pressure	4,500 psi   315 bar
Fluid Temperature	-40°F to 302°F (-40°C to 150°C)
Ports	NPT standard, BSPP optional
Turndown	100:1
Calibration	7-point logarithmic calibration

## Materials of Construction

Body	303 Stainless Steel or 316L Stainless Steel
Helical Gears	Stainless Steel (DIN 1.4122) (QPQ coating)
Index Gear	Stainless Steel (DIN 1.4122)
O-ring	FKM or PTFE
Ball Bearings & Shafts	Stainless Steel
Bolts	Zinc Flake Coated Carbon Steel

## Output Options

Choose from a wide variety of pickups, sensors, monitors, and controllers to pair with your gear meter:

- Frequency
- Analog (voltage or 4-20mA)
- Battery, loop, or DC powered displays

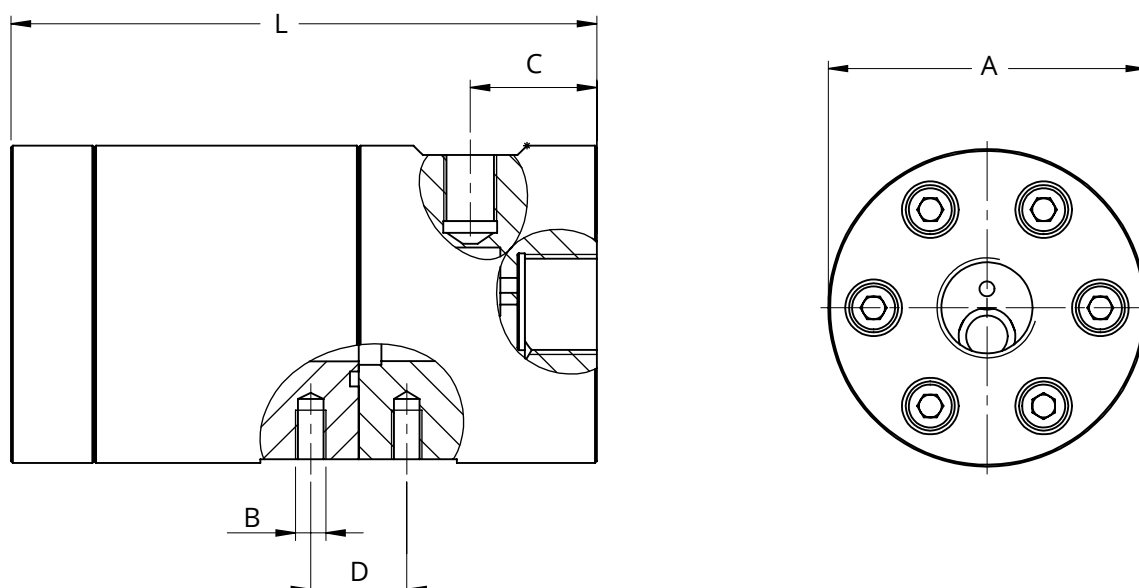
# SRZ-BB Helical Positive Displacement Flow Meter

## Meter Data

Meter Size	Flow Range		Resolution			Ports	Filtration	Pressure	
	(GPM)	(LPM)	(Impulses/Gal)	(Impulses/L)	(Impulses/cc)			(psi)	(bar)
SRZ#-40BB	0.1-10.6	0.4-40	32,247	3,500	3.5	¾" NPT	200	4,500	315
SRZ#-100BB	0.26-26.4	1.0-100	3,214	850	0.85	1" NPT	300	3,600	250
SRZ#-400BB	1.1-105.7	4.0-400	810	214	0.214	1½" NPT	300	2,900	200

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

## Meter Dimensions

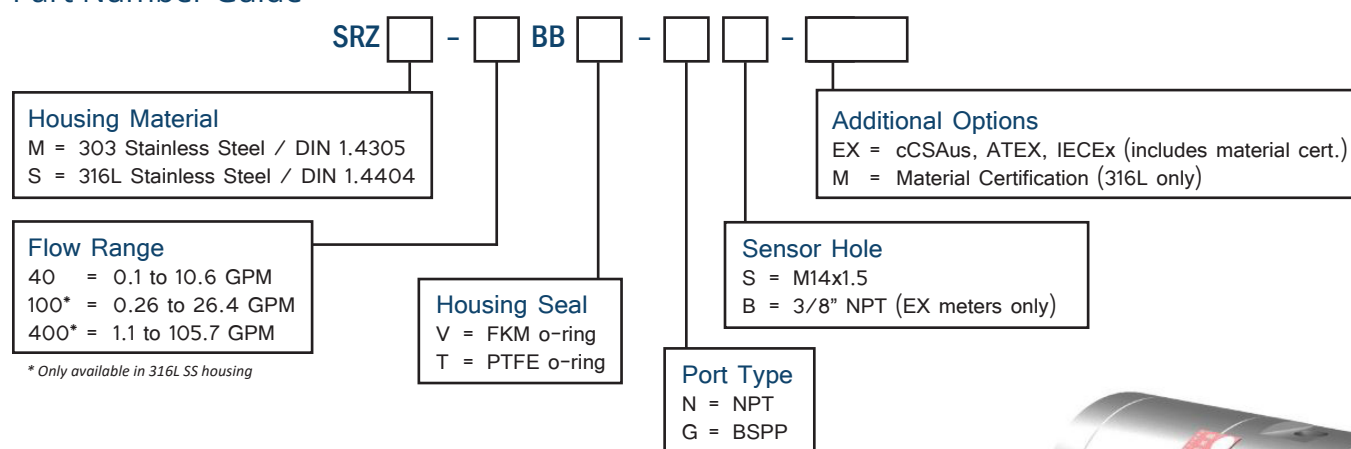


Meter Size	Dimensions					Weights	
	A	B	C	D	L	(Lbs)	(Kg)
SRZ#-40BB	3.4" (85mm)	M8	1.3" (33.5mm)	1.0" (25mm)	6.1" (155mm)	13.7	6.2
SRZ#-100BB	4.3" (109mm)	M10	2.1" (53mm)	1.7" (44mm)	8.7" (221mm)	33.1	15.0
SRZ#-400BB	5.3" (134mm)	M12	2.4" (60mm)	3.2" (80mm)	12.5" (318mm)	75.0	34.0

3D STEP Models are available upon request of factory.  
Products may be subject to change without notice. Contact factory for the most up-to-date product information.

# SRZ-BB Helical Positive Displacement Flow Meter

## Part Number Guide



## Electronics Options

AW-Lake offers a wide selection of Sensors/Pickups and Monitors/Controllers to optimize flow measurement and deliver your flow data where you need it and in the format you need it:

- Analog (Voltage & 4-20mA available)
- Frequency
- Modbus®
- HART®
- Bluetooth®
- Electronic Displays (Local & Remote Mount)
- Certified Units (UL, cCSAus, ATEX, IECEx)
- Wireless Monitoring (Radio Frequency)

Refer to website for more information.



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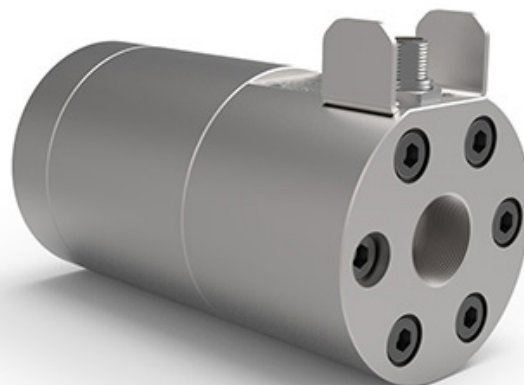


# SRZ-H High Resolution Helical Positive Displacement Flow Meter

## Common Uses

The SRZ-H High Resolution Helical PD Flow Meters are ideal for highly filled and abrasive fluids, such as polyurethanes and polymers, glues and sealing materials, as well as heavy fuel oils. These positive displacement flow meters are equipped with a built in sensor and is capable of maintaining consistent accuracy of  $\pm 0.5\%$  despite changing viscosity conditions. Practical applications include:

- Sealant and adhesive dispensing applications
- Paint reclaim and environmental tracking
- Paint circulation and supply



## Technical Specifications

Linear Flow Range	0.1 to 10.6 gpm*
Measuring Accuracy	$\pm 0.5\%$ over full range with 30cP fluid**
Repeatability	$\pm 0.05\%$
Max. Resolution	499,000 pulses/gallon   132 pulses/cc
Max. Operating Pressure	up to 3,600 psi   250 bar
Fluid Temperature Range	-40 to 158°F   -40 to 70°C
Ports	3/4" NPT (BSPP optional)
Turndown	up to 400:1
Calibration	7-point logarithmic calibration

\* Optional extended range 0.01 to 2.0 gpm; \*\*Extended range  $\pm 1.0\%$  up to 2 gpm with 100cP fluid

## Materials of Construction

Body	303 Stainless Steel
Helical Gears	Stainless Steel (DIN 1.4122) (QPQ coating)
Index Gear	Magnet pole wheel
O-ring	FKM or PTFE
Sleeve Bushing & Shafts	Tungsten Carbide
Bolts	Zinc Flake Coated Carbon Steel

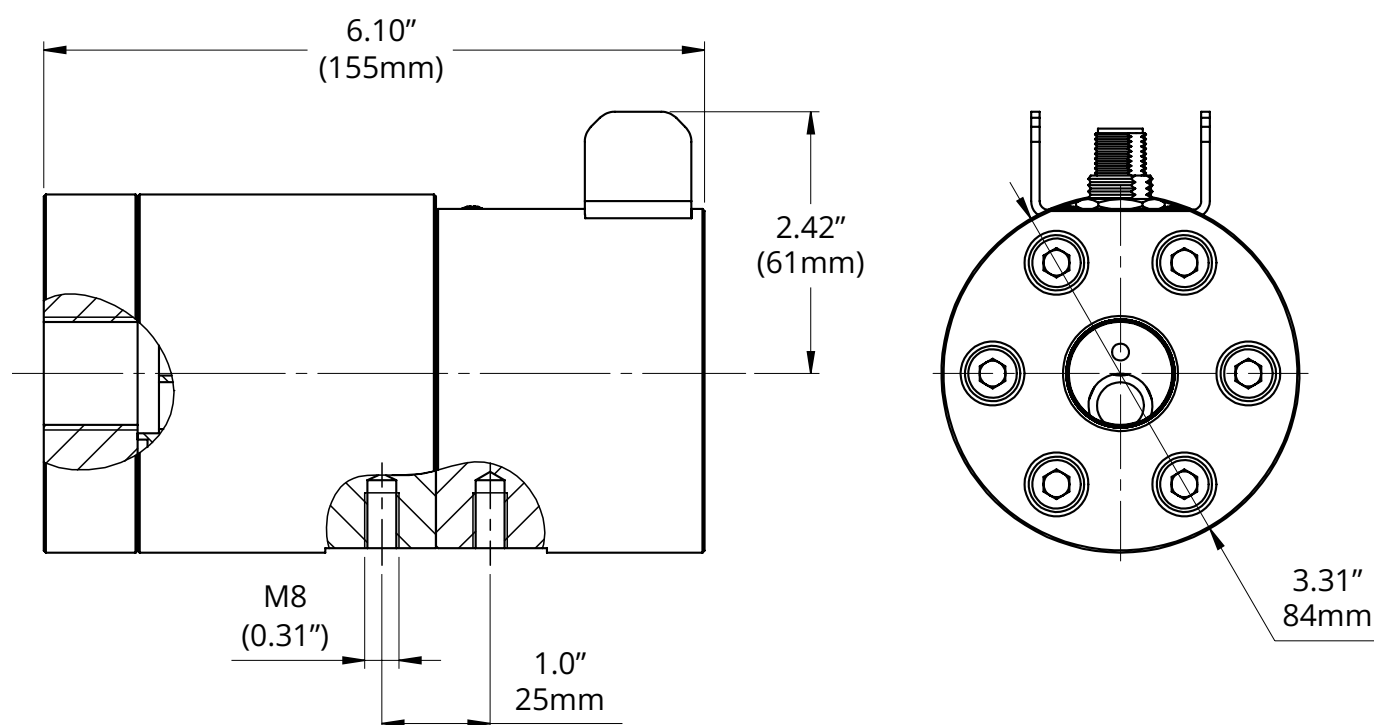
# SRZ-H High Resolution Helical Positive Displacement Flow Meter

## Meter Data

Meter	Flow Range*		Resolution			Ports	Filtration (microns)	Pressure	
	(GPM)	(LPM)	(Impulses/Gal)	(Impulses/L)	(Impulses/cc)			psi	bar
SRZ-40-x-H1	0.1-10.6	0.4-40	124,900	33,000	33	¾" NPT	200	3,600	250
SRZ-40-x-H2	0.1-5.8	0.4-22	249,800	66,000	66	¾" NPT	200	3,600	250
SRZ-40-x-H3	0.1-2.9	0.4-11	499,700	132,000	132	¾" NPT	200	3,600	250

\* Optional extended range 0.01 to 2.0 gpm

## Meter Dimensions

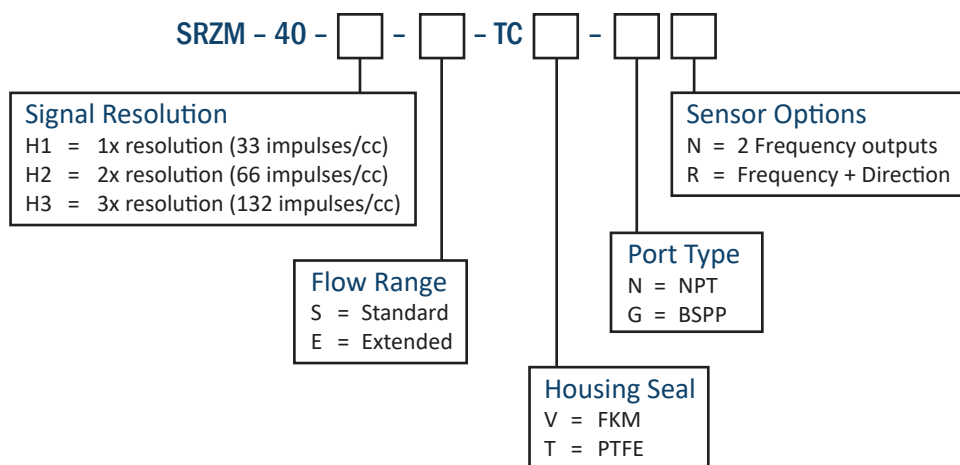


3D STEP Models are available upon request of factory.  
Products may be subject to change without notice. Contact factory for the most up-to-date product information.



# SRZ-H High Resolution Helical Positive Displacement Flow Meter

## Part Number Guide



## Electrical Specifications

Supply Voltage	12 up to 30 VDC	
Frequency Output	Active push pull, square wave signal out max. 20 mA Duty cycle 50% nominal	
Electrical Connection	<p><b>Sensor N:</b></p> <p>1 = +Supply (12 up to 30 VDC)</p> <p>2 = Output signal B</p> <p>3 = 0V/Ground</p> <p>4 = Output signal A</p> <p>5 = n.c.</p> <p>- All output signals are available simultaneously</p> <p>- Signals 2 and 4 are 90° phase-shifted.</p>	<p><b>Sensor R:</b></p> <p>1 = +Supply (12 up to 30 VDC)</p> <p>2 = Direction</p> <p>3 = 0V/Ground</p> <p>4 = Frequency output</p> <p>5 = n.c.</p>
Ingress Protection	IP67 when used with IP67 rated mating connector	
Connector Pin-Out		

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