

CX-G

Gear Flow Meter



Description

CXGO spur gear type flow meters rely on the well proven principle of positive displacement flow measurement which relies on two moving gears to displace quantities of fluid through them and these moving parts must effectively seal against each other to prevent leakage past the metering parts. The fluid cannot move through the meter without affecting the mechanism and the mechanism cannot move without fluid passing through it. Whatever goes in, comes out and is therefore measured, which is why careful consideration should be given to entrained gases and their prior removal to avoid measurement inaccuracies in liquid measurement. Very low viscosity liquids at low flows also present unique problems for PD meters. Call to discuss your application suitability.

Product Features

- Highly Accurate "Positive Displacement" design
- Excellent Measurement repeatability
- Low Noise emission
- High working pressure
- Fast response time to step changes in flow rate
- Resistant to Hydraulic shock
- Meters design provide predictable linear performance
- Large turndown of measuring range
- Extremely low flowrate capable
- High resolution pulse output
- Selection of remote flow displays available

Principle

The rotation of the gears due to the passage of liquid is detected through the top housing of meter using a Hall Effect sensor which detects the passing of each gear tooth, even at extremely high speeds. The liquid trapped between the teeth and the chamber wall during transit is the means by which the volume flow is calculated, as the meters' exact geometrical tooth volume is known and controlled by strict manufacturing tolerances. Each meter is delivered with a unique K-Factor, arrived at during initial manufacturing calibration.

VuFlow
metering technology

Technical Specifications

- Materials:
 - » Body Anodized Aluminium or 316 St Steel
 - » Gears, Spindles, Bearings 316 St Steel (Bearing option... Peek Bushes)
- Accuracy: +/- 0.5% of measured value
- Repeatability +/- 0.1%
- Connections: BSP Female Screwed ports (NPT Optional)
- Viscosity Range: 5 – 25,000 Centipoise
- Signal Output: Square Wave Pulse (Standard)
- Temperature Max: 80 °C (Higher on request 250 °C)
- Working Pressure: 200 Bar (50 & 400 Bar versions available)
- Calibration: Mineral oil@30 cSt or different viscosities on request
- Low Pressure Drop

Applications

- Hydraulic plant and equipment maintenance & test
- Automotive paints and varnishes
- Polyurethane Industry
- Dosing, Dispensing & Batching
- Mechanical Engineering
- Lubrication systems
- Aerospace Testing
- Manufacturing Control
- Wind Turbine systems
- Fuel consumption and injector testing

Liquid Suitability

- Hydraulic oil, Gear oil, Skydrol, Fuels
- Polyol + isocyanate, adhesives, resins, silicon
- Lacquer, Varnish, Cavity waxes
- Brake Fluid, Glycol
- Chemicals, Ink, Catalysts and coatings

Options

CX420A	4-20mA Output
CXHTP	High Temp Pulse output XX Deg C
CXDP	Dual Pick-up (Bi-directional flow)

Ball bearings for high speed, wide ranging conditions and universal installation (lubricating medium viscosity >3 Centipoise)

Model	K factor	Flow range	Connection	Accuracy	Gear	Housing
CX-G0.025-B-AL	0.025ml/p	0.004~2L/min	G1/8	0.5%	SS316L	Anodized aluminium
CX-G0.025-B-SS	0.025ml/p	0.004~2L/min	G1/8	0.5%	SS316L	SS316L
CX-G0.04-B-AL	0.04ml/p	0.01~4L/min	G1/4	0.5%	SS316L	Anodized aluminium
CX-G0.04-B-SS	0.04ml/p	0.01~4L/min	G1/4	0.5%	SS316L	SS316L
CX-G0.1-B-AL	0.1ml/p	0.02~8L/min	G3/8	0.5%	SS316L	Anodized aluminium
CX-G0.1-B-SS	0.1ml/p	0.02~8L/min	G3/8	0.5%	SS316L	SS316L
CX-G0.2-B-AL	0.245ml/p	0.08~16L/min	G3/8	0.5%	SS316L	Anodized aluminium
CX-G0.2-B-SS	0.245ml/p	0.08~16L/min	G3/8	0.5%	SS316L	SS316L
CX-G0.4-B-AL	0.4ml/p	0.1~40L/min	G1/2	0.5%	SS316L	Anodized aluminium
CX-G0.4-B-SS	0.4ml/p	0.1~40L/min	G1/2	0.5%	SS316L	SS316L
CX-G1-B-AL	1ml/p	0.2~80L/min	G1/2	0.5%	SS316L	Anodized aluminium
CX-G1-B-SS	1ml/p	0.2~80L/min	G1/2	0.5%	SS316L	SS316L
CX-G2-B-AL	2ml/p	0.5~120L/min	G3/4	0.5%	SS316L	Anodized aluminium
CX-G2-B-SS	2ml/p	0.5~120L/min	G3/4	0.5%	SS316L	SS316L

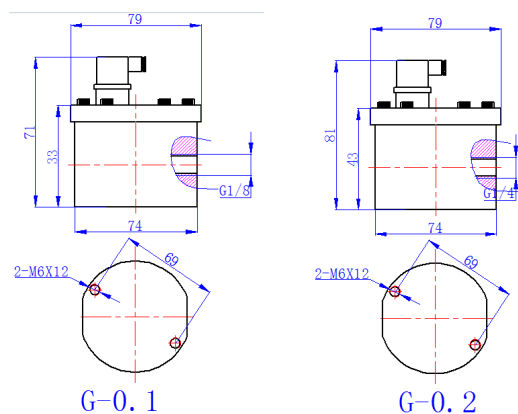
Pls note: Meters can be customized for high temperature, high pressure, high frequency, bi-directional and special materials

PEEK bushes for corrosive media and specialist applications

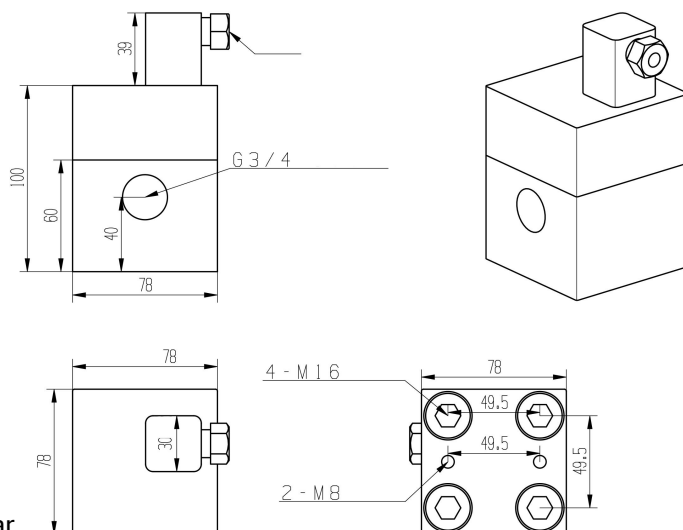
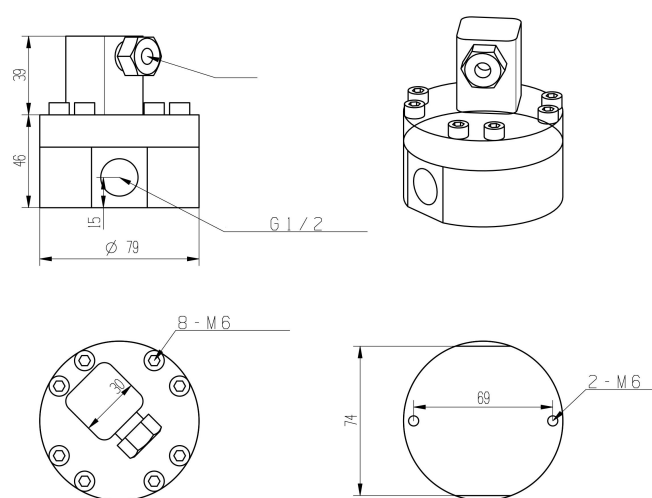
Model	K factor	Flow range	Connection	Accuracy	Gear	Housing
CX-G0.025-P-AL	0.025ml/p	0.008~1 L/min	G1/8	0.5%	SS316L	Anodized aluminium
CX-G0.025-P-SS	0.025ml/p	0.008~1 L/min	G1/8	0.5%	SS316L	SS316L
CX-G0.04-P-AL	0.04ml/p	0.02~2L/min	G1/4	0.5%	SS316L	Anodized aluminium
CX-G0.04-P-SS	0.04ml/p	0.02~2L/min	G1/4	0.5%	SS316L	SS316L
CX-G0.1-P-AL	0.1ml/p	0.04~4L/min	G3/8	0.5%	SS316L	Anodized aluminium
CX-G0.1-P-SS	0.1ml/p	0.04~4L/min	G3/8	0.5%	SS316L	SS316L
CX-G0.2-P-AL	0.245ml/p	0.16~8L/min	G3/8	0.5%	SS316L	Anodized aluminium
CX-G0.2-P-SS	0.245ml/p	0.16~8L/min	G3/8	0.5%	SS316L	SS316L
CX-G0.4-P-AL	0.4ml/p	0.2~20L/min	G1/2	0.5%	SS316L	Anodized aluminium
CX-G0.4-P-SS	0.4ml/p	0.2~20L/min	G1/2	0.5%	SS316L	SS316L
CX-G1-P-AL	1ml/p	0.4~40L/min	G1/2	0.5%	SS316L	Anodized aluminium
CX-G1-P-SS	1ml/p	0.4~40L/min	G1/2	0.5%	SS316L	SS316L
CX-G2-P-AL	2ml/p	1~60L/min	G3/4	0.5%	SS316L	Anodized aluminium
CX-G2-P-SS	2ml/p	1~60L/min	G3/4	0.5%	SS316L	SS316L

All flow ranges and accuracies quoted are based on fluids > 5 cSt viscosity (Lower viscosities will affect the accurate measuring range of the meter)

Dimensions



G0.4 50 Bar



G0.4 200 Bar

Electrical Connections

