

Positive Displacement Flow Meter

StaGear GF100 Series

Introduction

GF100 positive displacement flow meter measures the flow on the volumetric principle, in which gearwheels is moved proportional to the flow rate. The movement of the gearwheels is measured through the enclosing housing wall by a sensor.

Assembled with journal bearings, GF100 can measure low or non-lubricating fluids, such as paints, glues, resin, sealant etc.

The GF series of positive displacement flow meters have 8 measuring ranges from 0.006 ... 2L/min through 3.5... 450L/min (from 0.0016...0.52gal/min through 0.93...119gal/min).

Optional pickoffs for pulse output, current analog output and analog output.



Characteristics

Measuring Range:

0.006 ... 2L/min - 3.5 ... 450L/min

0.0016...0.52gal/min - 0.93...119gal/min

Analog / Pulse output

Bi-directional flow measurement

High accuracy and repeatability

Higher trundown ratio

Immune to medium viscosity

Applications

Hydraulic oil / lubricating oil / grease

Cooling liquid

Fuel oil

Resin / glue / silica gel

Cylinder position

Braking fluid measurement

Specifications

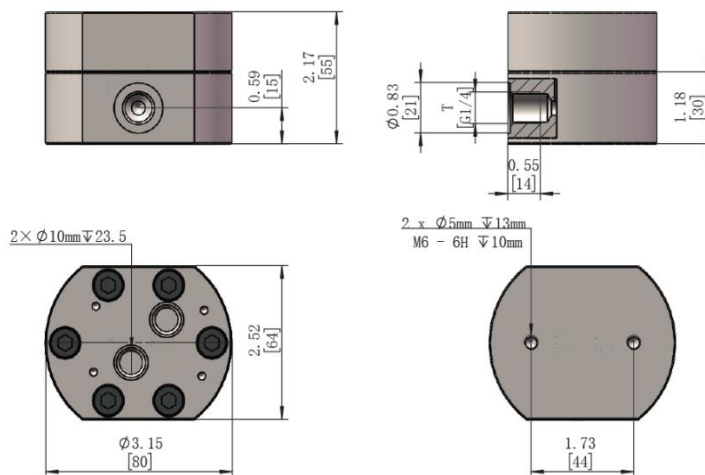
Applicable Medium	Liquids
Accuracy	±0.5% of reading (turndown ratio 1:10) ±1% of reading (measuring range)
Repeatability	±0.1% of reading
Pressure Rating	See measuring range below for details
Ambient Temperature	-40...85°C / -40...185°F
Medium Temperature	-40...100°C / -40...212°F (See order code for higher options)
Materials	Body: 316 stainless steel / aluminum Gear: 316 stainless steel Sealing: FPM (optional NBR, PTFE) Bearing: stainless steel ball bearing

Measuring range

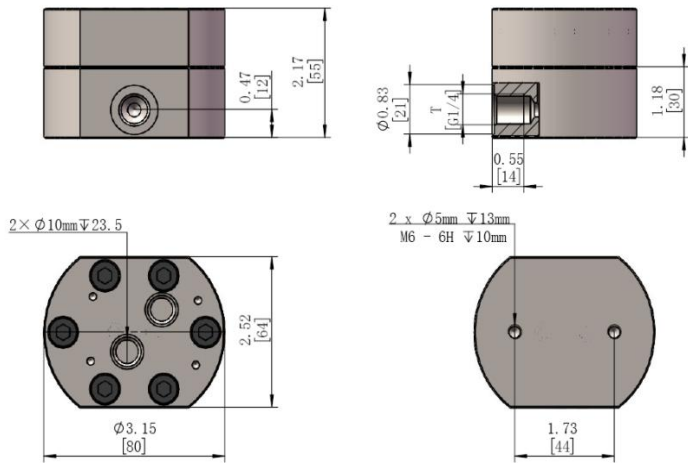
Measuring Range (L/min)	Measuring Range (gal/min)	Connection (BSPP/NPT)	K Coefficient (IMPULSE/L)	Max. Filter Diameter (Micron)	Max. Pressure bar (psi)	
					Stainless Steel	Aluminum
0.006...2	0.0016...0.53	1/4	40000	30	690 (10000)	250 (3600)
0.02...3	0.006...0.8	1/4	13500	30		
0.05...7.5	0.014...2	1/4	4200	30		
0.2...25	0.06...6.6	1/2	1400	30		
0.4...40	0.11...10.5	1/2	840	30		
0.5...75	0.14...20	3/4	450	200	420 (6000)	150 (2200)
1...150	0.27...40	1	190	200		
2...225	0.53...60	SAE 1-1/4"	110	200		
3.5...450	0.93...119	SAE 1-1/4"	55	200		

Dimension in Inch (mm)

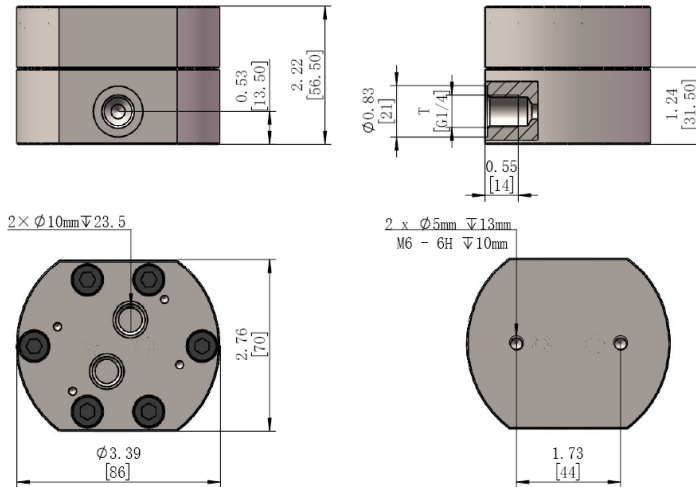
Measuring range: 2L/min



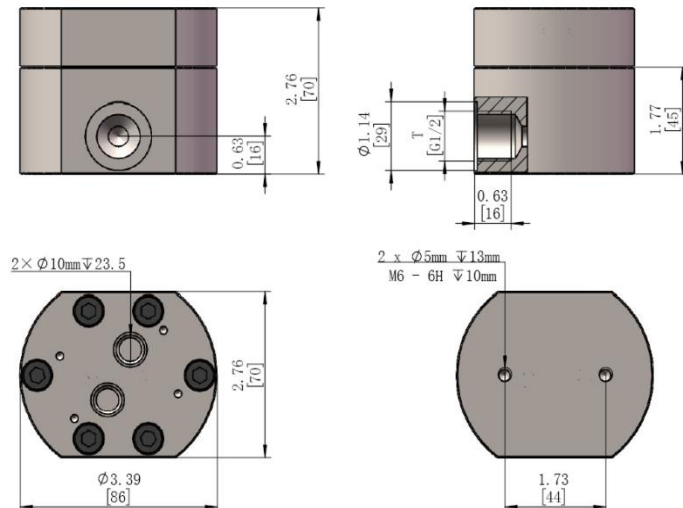
Measuring range: 3L/min



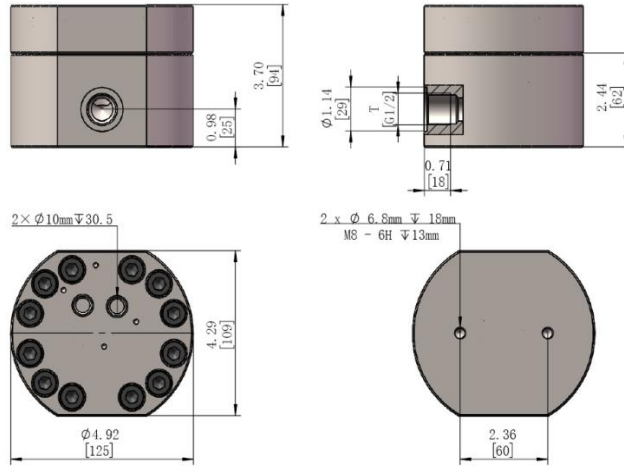
Measuring range: 7.5L/min



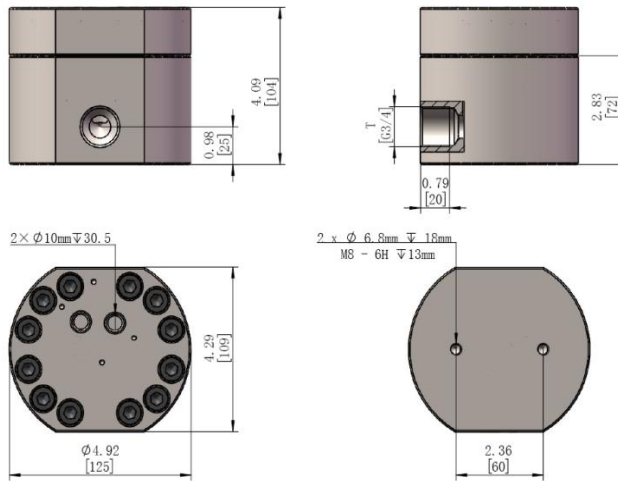
Measuring range: 25L/min



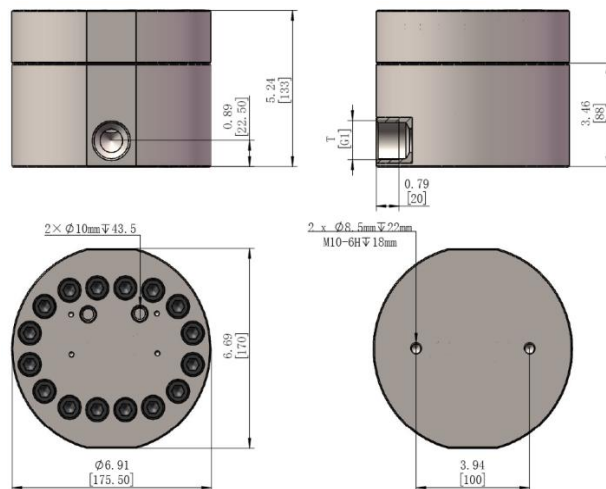
Measuring range: 40L/min



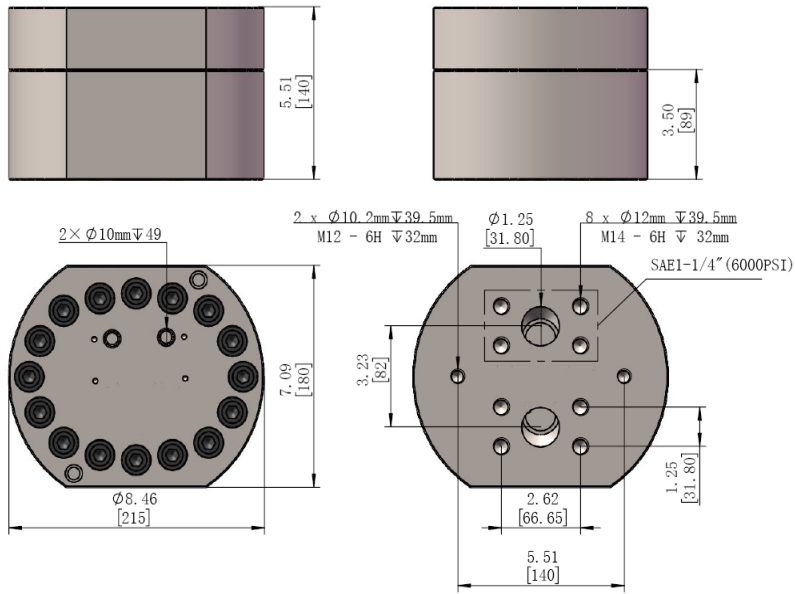
Measuring range: 75L/min



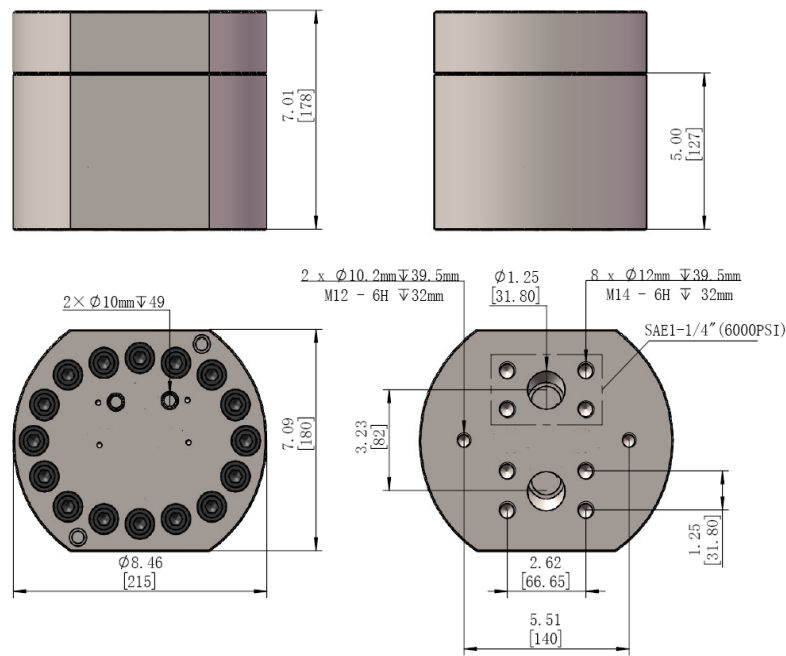
Measuring range: 150L/min



Measuring range: 225L/min



Measuring range: 450L/min



Order Code

Example: GF100-7.5-GF-S

GF100- Positive Displacement Flow Meter

2. Measuring range ()

2	0.006...2.0 L/min (0.0016...0.53 gal/min)
3	0.02...3 L/min (0.006...0.8 gal/min)
7.5	0.05...7.5 L/min (0.014...2 gal/min)
25	0.2...25 L/min (0.06...6.6 gal/min)
40	0.4...40 L/min (0.11...10.5 gal/min)
75	0.5...75 L/min (0.14...20 gal/min)
150	1.0...150 L/min (0.27...40 gal/min)
225	2.0...225 L/min (0.53...60 gal/min)
450	3.5...450 L/min (0.93...119 gal/min)

3. Connection

GF	G female thread (BSPP female thread)
NF	NPT female thread
S	Customized connection - please specify

4. Material

S	Stainless steel
A	Aluminum

Sensor Options

1. Model

S2000- For positive displacement flow meter

2. Sensor

N Non-magnetic sensor

3. Output

P1	Pulse output
P2	Linearized pulse output
P3	Dual-pulse output (90° phase shift)
A	Analog output
D	Digital transmitter
E	Ex-proof transmitter

4. Temperature

T1	-40...212°F (-40...100°C)
T2	-40...302°F (-40...150°C)
T3	-40...446°F (-40...230°C)

See sensor's datasheet for details

