

Subsea Positive Displacement Flow Meter **GSF100 series**

Introduction

We design and manufacture a wide portfolio of standard and custom-tailored Positive Displacement Flow Meters for subsea uses. These meters are designed to withstand the harsh conditions of the subsea environment, including high pressure, low temperatures, and corrosive fluids.

Our Subsea PD Flow Meters are available in a wide variety of flow ranges and outputs, as well as a variety of materials for highest corrosion resistance.

With full line of testing and calibration equipments, we assure all our PD flow meters are with high accuracy, high reliability and high resolution to meet or beyond the highest standard of our customers.



Applications

ROV Skids

ROV Workover Control Systems (RWOCs)

Blowout Preventer (BOP)

Offshore Chemical & Methanol Injection

Subsea Control Systems

Valve actuation

Features

Field proven Solid and reliable design

Manufactured to the highest quality

High Accuracy 0.5%

Working pressure up to 1035 bar

A variety of materials

Highly customizable

Specifications

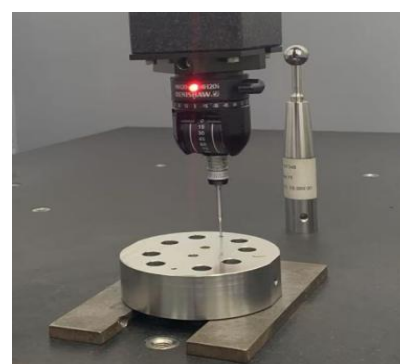
Flow Ranges	See order code below for details
Max working pressure	15000 psi (1035 bar)
Operating depth	20,000 feet / 6000m (external pressure: 8700 psi / 600 bar)
Accuracy	0.5% of reading
Repeatability	0.1%
Materials	Body: 316 stainless steel (316L, duplex available on request) Rotor: 316 stainless steel(316L, duplex available on request) Sealing: FPM (NBR, PTFE available on request) Bearings: stainless steel ball bearing
Output	Pulse; Two separated pulses; 4...20mA. Single-pulse with 4 x pulse resolution; Dual-pulse(quadrature signal) with 90° phase shift. 4...20mA with flow directional detection; -10...10 with flow directional detection.
Process connection	Autoclave (NPT, G available on request)
Electrical connection	Burton, Seacon, Glenair, Subconn
Power Supply	10-25 VDC
Wiring protection	Short-circuit Reverse polarity

Measuring range

Part Code	Measuring Range		K Coefficient (Pulse/L)	End Fitting	Max. Working Pressure psi (bar)
	Gal/min	L/min			
R3	0.006...0.8	0.02...3	13500	3/8" Autoclave MP	15000 psi (1035 bar)
R7	0.014...2	0.05...7.5	4200	3/8" Autoclave MP	
R25	0.06...6.6	0.2...25	1400	3/8" Autoclave MP	
R40	0.11...10.5	0.4...40	840	3/4" Autoclave MP	
R75	0.14...20	0.5...75	450	3/4" Autoclave MP	
R150	0.4...40	1.5...150	190	1" Autoclave MP	10000 psi (690 bar)
*Other ranges and end fittings available on request					

Testing and Calibration

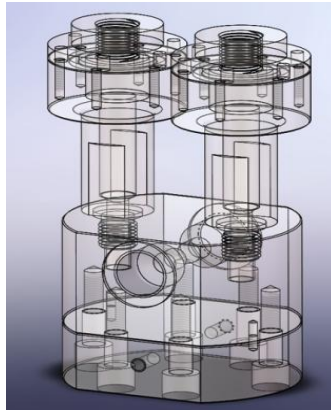
All GSF100 Subsea Positive Displacement Flow Meters are individually calibrated and are traceable to national standards. We provide you with a test certificate for each meter showing the number of pulses per liter, which is used to set the instrumentation.



Customization

Our subsea flow meters are highly customizable to match your specific needs: parts material, process connection, electrical connection, signal output and housing.

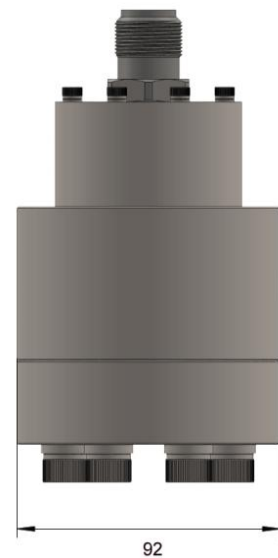
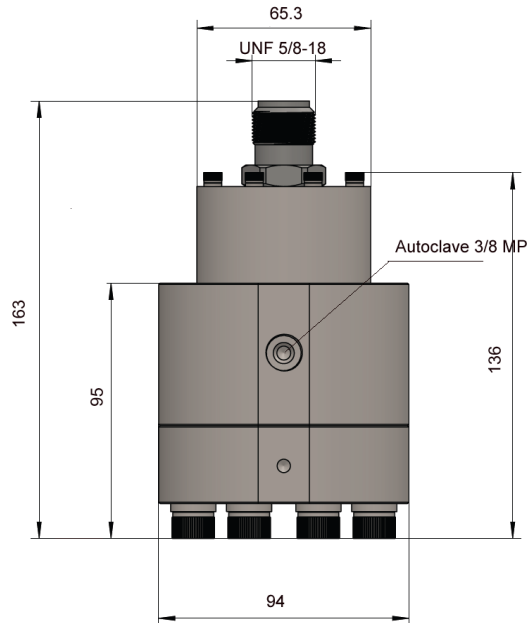
Contact us to request a 3D file.



Dimensions in mm

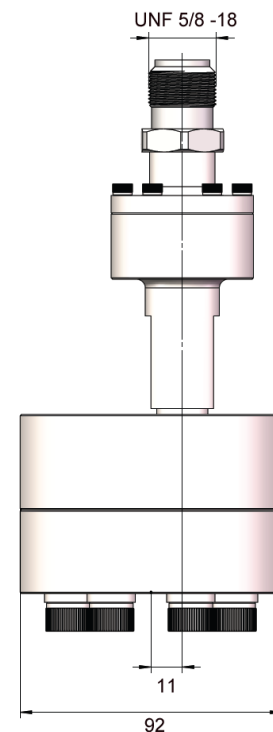
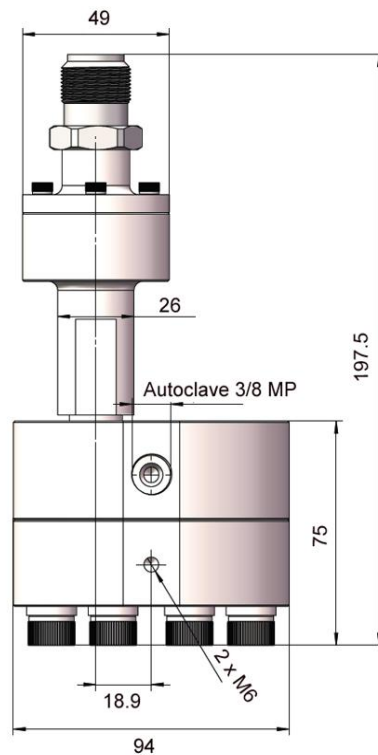
Dual pulse output in one housing

25 L/min
1035 bar (15000 psi)



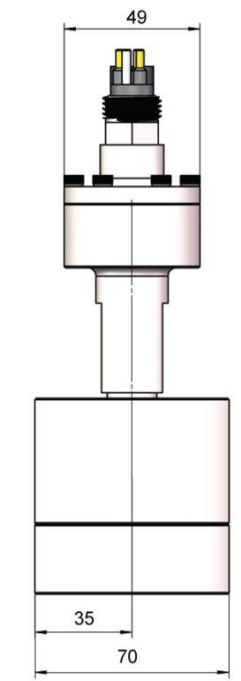
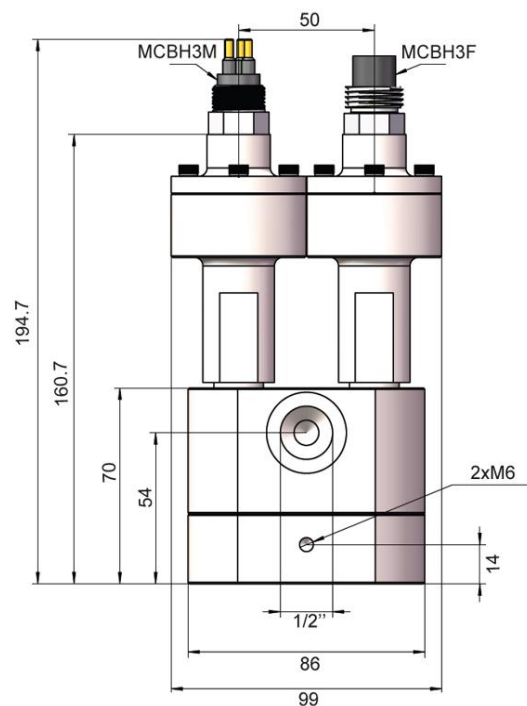
Single analog output

7.5 L/min
1035 bar (15000 psi)



Dual pulse output in separated housing

25 L/min
690 bar (10000 psi)

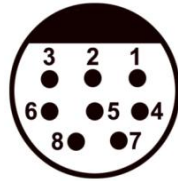


Subconn connectors are used on above dimensions drawings.

Electronics

Electrical connector selectable from: Subcon, Burton and Seacon, Glenair or others

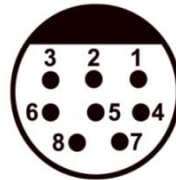
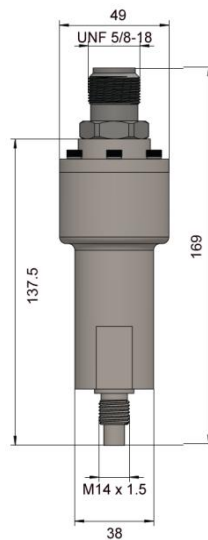
Dual-pulse output



Connector: Glenair / Burton 5507-1508, or use any other connectors users prefer.

- 2: Power +
- 1: Power -
- 5: Pulse 1
- 6: Pulse 2

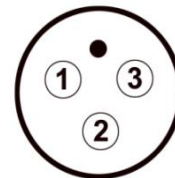
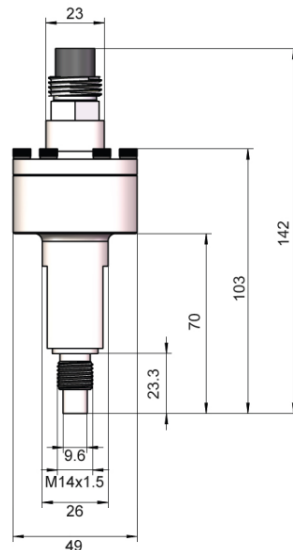
Analog output



Connector: Glenair / Burton 5507-1508, or use any other connectors users prefer, such as 3-pin, 6-pin.

- 2: Power +
- 1: Power -
- 5: Analog output

Pulse output



Connector: Subconn 3-pin connector, or use any other connectors users prefer.

- 1: Power +
- 2: Analog output
- 3: Power -

Order information

GSF100 is a highly customizable product.

Below information is only for your references, please feel free to change any of below to meet your requirement.

1. Model

GSF100- Subsea Positive Displacement Flow Meter

2. Measuring range

R3	0.006...0.8 gal/min (0.02...3 L/min)
R7	0.014...2 gal/min (0.05...7.5 L/min)
R25	0.06...6.6 gal/min (0.2...25 L/min)
R40	0.11...10.5 gal/min (0.4...40 L/min)
R75	0.14...20 gal/min (0.5...75 L/min)

3. Process connection

AC	Autoclave
GF	Female G thread
NF	Female NPT thread
-	Other connections on request

4. Sealing Material

F	FPM (standard)
B	NBR
P	PTFE
-	Other connections on request

5. Max. working pressure

10K	10000 psi (690 bar)
15K	15000 psi (1035 bar)

6. Body Material

S	316 stainless steel
SL	316L stainless steel
D	Duplex stainless steel
-	Other material on request

7. Output

P1	Pulse output
P2	Two separated pulse output
A	4...20mA
DP1	Single pulse output with 4 x pulse resolution
DP2	Dual-pulse Output (Quadrature signal with 90° phase shift)
DA	4...20mA with Flow Directional Detection (Output 4...20mA for flow rate; Switch output for flow direction)
DV	-10...10V (-10...0V for backward flow; 0...10V for forward flow)



P1



P2



A



DP1 / DP2 / DA / DV