

FLUIDEX

S M A L L O V A L G E A R F L O W M E T E R S



Fluidex series SOGF is a Positive Displacement Flow Meter with small capacity. The meters have two rotating gears in oval-shape. A fixed amount of the liquid passes between the gear teeth and through the meter after each revolution. The flow rate is identified by the number of shaft rotations during a certain period of time. The SOGF are used in a wide range of applications including the metering of fuel additives, corrosion inhibitors, emulsifiers and many others.

FEATURES AND BENEFITS:

- High accuracy & repeatability.
- Available in DN04, DN06 and DN08 (1/8", 1/4" and 3/8")
- Flow range covered from 0.5~550 LPH (0.16~145 US GPH)
- No need for flow conditioning
- Suitable for low & high viscosity liquids.
- Availability of explosion proof and Intrinsically Safe registers.
- Quadrature pulse output option & bi-directional flow.
- Availability of High pressure models.

(See series MOGF and LOGF for larger sizes and capacities)

STANDARD OPTIONS:

- ✓ Explosion proof
- ✓ Integral and remote LCD totalizer and batch totalizer
- ✓ Flow rate totalizers
- ✓ Scaled pulse
- ✓ 4~20mA & flow alarm outputs
- ✓ Electronic batch controllers and pulse processing modules

GENERAL SPECIFICATIONS

Model prefix:	SOGF004	SOGF006	SOGF008
Nominal size	DN04 (1/8")	DN06 (1/4")	DN08 (3/8")
Flow range (LPH)**	0.5~36	2~100	15~550
Flow range (US GPH)*	0.13~9.5	0.5~27	4~145
Accuracy @ 3cp	±1% o.r. (± 0.2% with optional NL correction)		
Repeatability	Typically ± 0.03%		
Temperature range	-20°C~+120°C (-4°F ~ +250°F)		
Recommended filtering	75 micron (200 mesh) minimum		

Maximum pressure:	Bar (PSI)
Aluminum	15 (220)
316L Stainless Steel	34 (500)
High pressure stainless	Consult Factory

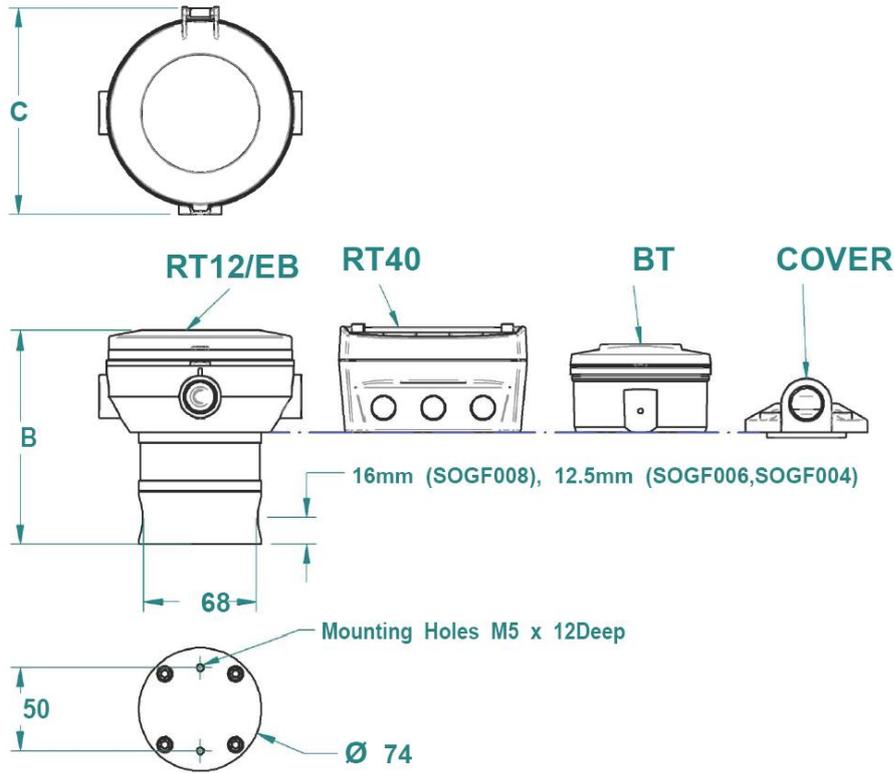
Electrical - for pulse meters (see also optional outputs)

Output pulse resolution:	Pulses / liter (Pulses / US Gallon) – Nominal		
Reed switch	2890 (10940)	2100 (7950)	355 (1345)
Hall effect	2890 (10940)	2100 (7950)	710 (2690)
High Resolution Hall effect	11220 (42470)	4200 (15900)	N/A
Reed switch output	30Vdc x 200mA max.		
Hall effect output (NPN)	3 wire open collector, 5~24Vdc, 20mA max.		
Protection class	IP66/67 (NEMA4X), optional Exd IIB T6 or I.S.		

(*) Max. flow is to be reduced as viscosity increases, max. pressure drop 100Kpa. (15 psi)



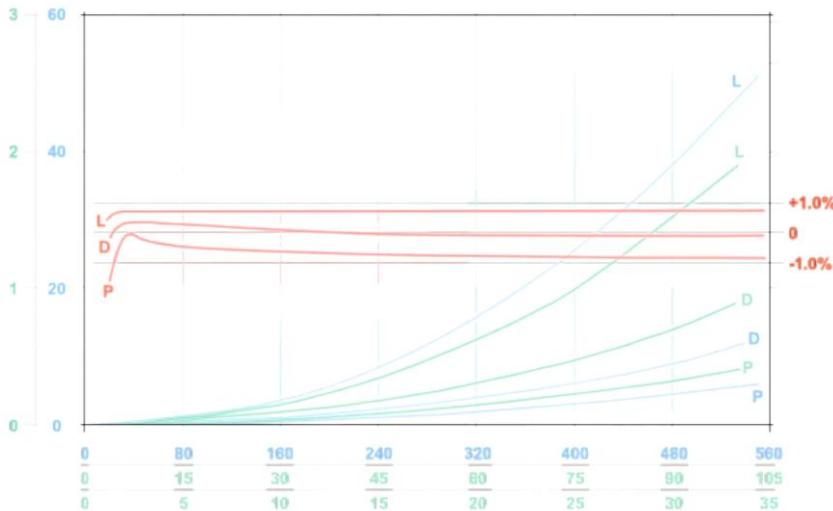
DIMENSIONS



	B	B	B	C
OPTIONS	SOGF004	SOGF006	SOGF008	
RT12 / EB	122	122	129	124
RT40	125	125	132	96
BT register	113	113	120	94
Cover	92	92	99	74

All dimensions in millimeters ±2mm

PRESSURE DROP & ERROR CURVES



METER SELECTION MATRIX AND ORDER CODE

	Size		LPH	GPH		SOGF		
SOGF004	DN04 (1/8")	Flow	0.5~36	0.13~9.5		004	006	008
SOGF006	DN06 (1/4")		2~100	0.5~27				
SOGF008	DN08 (3/8")		15~550					
	Body material							
A	Aluminum					●	●	●
S	316L Stainless Steel					●	●	●
N	Intermediate pressure 316L SS (100 bar (1450 PSI))					100	100	100
H	High Pressure 316 SS (400 bar (5800 PSI))					400	400	400
	Rotor materials							
0	PPS – Teflon Filled (Polyphenylene Sulfide)							●
5	316 stainless steel					●	●	●
7	Keishi cutting of Stainless Steel rotors (for high viscosity liquids)							●
	Bearing type							
0	No bearing – PPS rotor option only							●
1	Carbon Ceramic (Standard with SS rotors)					●	●	●
4	Hardened steel roller bearings (standard with Aluminum rotors)					●	●	●
	O-ring materials							
1	Viton (Standard)	Temperature			-15~+120°C (5~+250°F)	●	●	●
2	Ethylene Propylene Rubber				Up to 150°C (300°F) max.	●	●	●
3	Teflon encapsulated Viton				Up to 150°C (300°F) max.	●	●	●
4	Buna-N (Nitrile)				-40~+120°C (-40~+250°F)	●	●	●
	Temperature limits							
-	2			120°C (250°) - see note ¹	●	●	●	
-	3			150°C (300°F) – Hall Effect output only – See note ²	●	●	●	
-	5			120°C (250°F) - see note ³	●	●	●	
-	8			80°C (176°F) – see note ⁴			●	
	Process connections							
1	BSPP (G) female threaded					●	●	●
2	NPT female threaded					●	●	●
9	Customer nominated					●	●	●
	Cable entries							
0	3~6mm cable gland					●	●	●
1	M20 x 1½mm					●	●	●
2	½" NPT					●	●	●

Order Code Example

SOGF006	S	5	1	1	-	5	1	2	R2			
										Integral options	Remarks	
										00	Nil	
										RS	Reed switch only	To suit I.S. Installations
										E1	IEC. Ex & ATEX Approved Exd IIB T4/T6	Al and SS meters
										E2	IEC. Ex & ATEX mines Approved Exd I/IIB T4/T6	SS meters only
										QP	2 NPN open collector phased outputs	Not for High Pressure
										Q1	IEC. Ex & ATEX approved Exd with Quadrature pulse	Not for High Pressure
										HR	SOGF004:11200ppl, SOGF006:4200ppl High resolution Hall Effect output	SOGF004 and 006
										H1	IEC. Ex & ATEX approved Exd with HR high resolution Hall	SOGF004 and 006
										PF	For injected combustion engines Pulsating flow option	Hall effect only
										P1	IEC. Ex & ATEX Approved Exd with PF option	With pulsating flow option
										B2	With scalable pulse output BT11 Dual Totalizer	
										B3	IEC. Ex & ATEX Approved BT11 Intrinsically Safe (I.S.)	Alloy Housing
										R2	Outputs: Scaled pulse, alarm, 4-20 mA RT12 Flow Rate Totaliser	GRN Housing
										R3	IEC. Ex & ATEX approved RT12 Intrinsically safe RT12 (I.S.)	
										R4	Large digit flow rate, totals, Scaled pulse, backlighting RT40 Flow Rate Totalizer	
										FI	Adapts to pulse output board Loop powered 4~20mA output	80°C max.
										E0	DC powered 2 stage batch controller EB10 batch controller	
										SB	Consult factory Specific build requirement	

⁽¹⁾ Temperature rating in case of PPS or when fitted with integral instruments is limited to 80°C (180°F), ⁽²⁾ Not available for High Pressure Meters, ⁽³⁾ Instruments include integral cooling fan to increase the temperature rating to 120°C (250°F), ⁽⁴⁾ Applies to SOGF008 with PPS rotors

