FLUIDEX

LARGE OVAL GEAR FLOWMETERS

Fluidex series LOGF is a Positive Displacement Flow Meter with large 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. MLOGF are used in a wide range of applications where accurate measurement of liquid is required.

FEATURES AND BENIFITS:

- High accuracy & repeatability.
- Available in DN80 and DN100 (3″ to 4″) lines sizes
- Flow range covered from 35~2500 LPM (10~660 US GPM)
- No need for flow conditioning.
- Measure low & high viscosity liquids.
- Optional integral check valves.
- Availability of wide range of mechanical and electronic registers
- Availability of explosion proof and Intrinsically Safe models
- Quadrature pulse output option & bi-directional flow.
- Availability of High pressure models

(See series SOGF and MOGF for smaller sizes and capacities)

STANDARD OPTIONS:

- ✓ *Flanged process connections*
- ✓ *Explosion proof*
- ✓ *Mechanical registers*
- ✓ *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:	LOGF080	LOGF080E	LOGF100	LOGF100E
Nominal size	DN80 (3″)	DN80 (3")	DN100 (4")	DN100 (4″)
Flow range (LPH)*	2100~45000	3000~60000	4500~90000	9000~150000
Flow range (LPM)*	35~750	50~1000	75~1500	150~2500
Flow range - (US GPH)*	600~12000	780~15600	1200~24000	2400~39600
Flow range - (US GPM)*	10~200	13~260	20~400	40~660
Accuracy @ 3cp**	± 0.2% of reading (15:1 turndown)			
Repeatability	Typically ± 0.03%			
Temperature range***	-20°C~+120°C (-4°F~+250°F)			
Recommended filtering	350 microns (40 mesh) minimum			

(*) Max. flow is to be reduced as viscosity increases (Recommended max. pressure drop 100Kpa. (15 psi))
(**) Accuracy ±1% of reading with M-series registers and ±0.5% with V-series
(***) Refer to factory for other operating temperatures

Maximum pressure:	Bar (PSI)			
Aluminum	12 (180)	12 (180)	10 (150)	10 (150)
316 Stainless Steel	Consult Factory			
Ductile iron	Consult Factory			

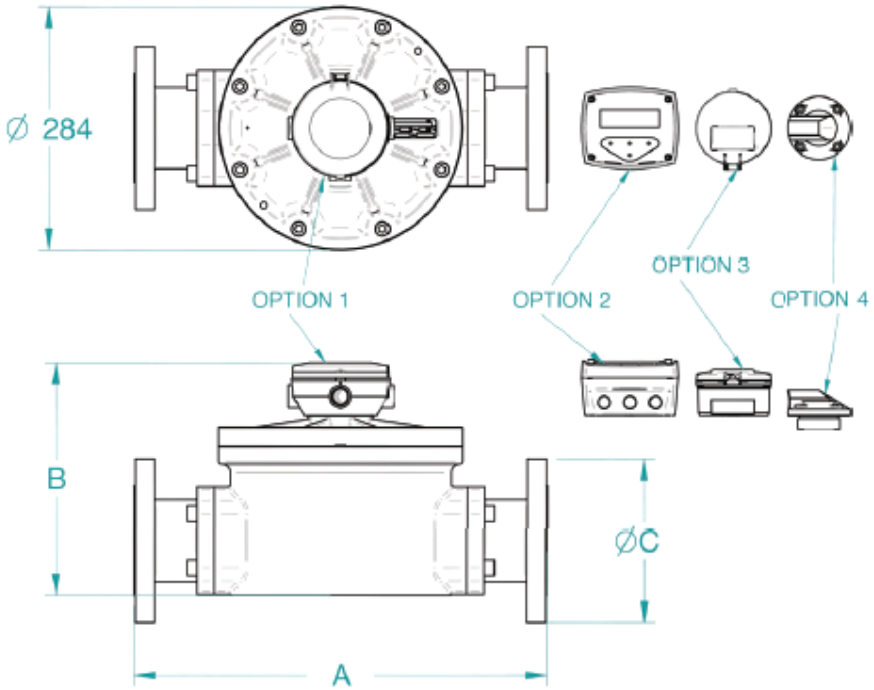
Electrical - for pulse meters (see also optional outputs)

Output pulse resolution:	Pulses/Liter (Pulses/US Gallon) – nominal			
Reed switch	2.65 (10)	1.55 (5.87)	1.1 (4.15)	0.56 (2.1)
Hall effect	10.65 (40.5)	6.2 (23.5)	4.4 (16.6)	2.24 (8.5)
Quadrature Hall option	5.33 (20)	3.1 (11.8)	2.2 (8.3)	1.12 (4.24)
Reed switch output**	30Vdc x 200mA max. (Maximum thermal shock is 10°C (18°F) per minute)			
Hall effect output (NPN)	3 wire NPN open collector, 5~24Vdc, 20mA max.			

Protection Class:

IP Rating and Ex-proof Class	IP66/67 (NEMA4X), optional Exd IIB T6 or I.S.

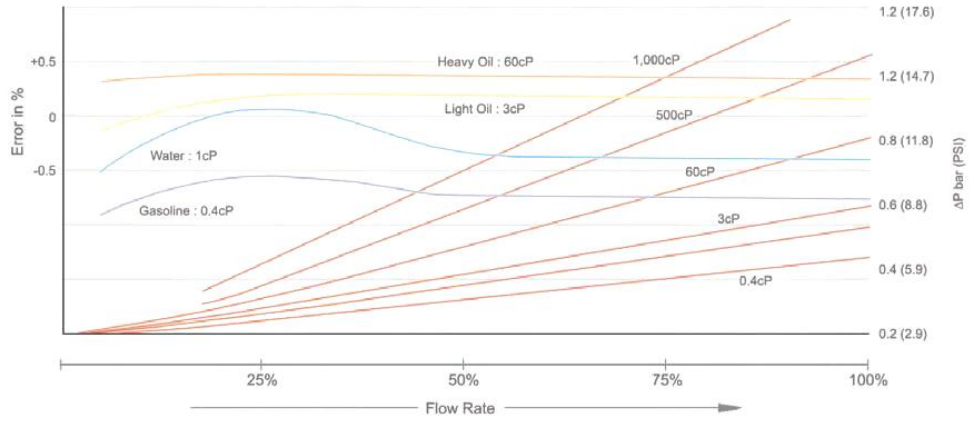
DIMENSIONS



Modular Process Connections	A	A	A	A	OPTION	B		B	B	B
	LOGF080	LOGF080E	LOGF0100	LOGF100E		LOGF080		LOGF80E	LOGF0100	LOGF100E
						Al	SS			
ANSI 150 Flange	354	382	388	414	① RT12/EB	260	257	277	322	399
DIN 16 Flange	354	382	388	414	② RT40	264	260	281	326	403
JIS 10K Flange	354	382	388	414	③ BT11	252	249	269	314	391
BSP Screwed	266	294	294	320	④ COVER	213	206	229	274	352
NPT Screwed	266	294	294	320	Mechanical	270	NA	288	333	416

- All dimensions in millimeters
- Large mechanical registers are not shown in the above table

ACCURACY CURVES & PRESSURE DROP



METER SELECTION MATRIX AND ORDER CODE

	SIZE		Flow	LPM	US GPM	LOGF			
LOGF080	3"	DN80		35~750	10~200	080	080E	100	100E
LOGF080E	3"	DN80		50~1000	13~260				
LOGF100	4"	DN100		75~1500	20~400				
LOGF100E	4"	DN100		150~2500	40~660				

		Body material											
	A	Aluminum											
	E	Extended flow Aluminum version											
	S	316L Stainless Steel										Consult Factory	
	D	Ductile iron (Consult Factory)											

			Rotor materials										
		0	TF-PPS Rotors (Not applicable for the LOGF100E)										
		1	Keishi cutting of TF-PPS rotors (for high viscosity liquids)										
		4	Aluminum (used with Aluminum meters only)										
		5	Stainless Steel (all SS models only)										
		6	Keishi cutting of Aluminum rotors (for high viscosity liquids)										
		7	Keishi cutting of Stainless Steel (for of high viscosity liquids)										

				Bearing type									
			0	No bearing (PPS rotors only)									
			1	Carbon Ceramic (Standard with SS rotors)									
			4	Hardened steel roller bearings (Aluminum rotors only)									

					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							
				P	-	2	120°C (250°) - *see note* [1]						
				P	-	3	150°C (300°F) – Hall Effect output only – See note [2]						
				P	-	5	120°C (250°F) - *see note* [3]						
				M	-	8	80°C (176°F) – see note [4]						

							Process connections						
						1	BSPP (G) female threaded						
						2	NPT female threaded						
						3	Tri clamp ferrules (½" larger than the meter)						
						4	ANSI-150 RF flanges						
						5	ANSI-300 RF flanges						
						6	PN16 DIN flanges						
						7	JIS 10 kg/cm^2 flanges						
						9	Customer nominated (Consult Factory)						

								Cable entries						
							M	M	No cable entry					
							P	0	3-6 mm cable gland					
							P	1	M20 x 1½mm					
							P	2	½" NPT0					

Order Code Example

LOGF100	S	5	1	1	-	5	1	2	REG				

([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]) This is the maximum temperature in meters with mechanical registers, (P) Pulse Meters, (M) Mechanical Register

REGISTER – PULSE METERS

Order Code Example

LOGF100	S	5	1	1	-	5	1	2	R2		
										Integral options	Remarks
									00	Nil	
									RS	Reed Switch only	To suit I.S. Installations
									E1	Exd IIB T4/T6	Al and SS meters
									E2	Exd I/IIB T4/T6	SS meters only
									QP	Quadrant pulse	Not for High Pressure
									Q1	Exd with Quadrature pulse	Not for High Pressure
									PF	Pulsating Flow option	Hall effect output only
									P1	Exd with PF option	With Pulsating Flow option
									B2	BT11 Dual Totalizer	
									B3	BT11 Intrinsically Safe (I.S.)	
									R0	RT12 Flow Rate Totalizer	Alloy Housing
									R2	RT12 Flow Rate Totalizer	GRN Housing
									R3	RT12 Intrinsically Safe (I.S.)	
									R4	RT40 Flow Rate Totalizer	
									FI	Loop powered 4~20mA	80°C max
									E0	EB10 Batch Controller	
									SB	Specific build requirement	

REGISTER - MECHANICAL METERS

Order Code Example

LOGF100	S	5	1	1	-	5	1	M	V1	V

Totalizer	Units	Small Mechanical Registers		
99999	LITERS	❹ Digit Totalizer	M3	
99999	US GAL	❹ Digit Totalizer	M4	
		Large Digit Registers		
999999	LITERS	❺ Digit Reset Register	V1	
999999	LITERS	❺ Digit Reg+Ticket Printer	V3	
999999	LITERS	❺ Digit Reg+Preset Batch Register	V5	
999999	LITERS	❺ Digit Reg+preset+Ticket Printer	V7	
		Consult Factory	SB	
		Control Valve options (close coupled)		
		Mechanical control valve + Linkages coupled to meter		V

Consult factory for US Gallons V-series Mechanical Registers and for the available range of strainer-air eliminator

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