



UK Flowtechnik

Specialists in flow metering, pumps, couplings
and process measurement equipment

PRODUCT DATASHEET

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OM Large Oval Gear Flowmeter



The FLOMEC® OM Large Capacity Oval Gear Meters have fitting sizes of 3 inches and 4 inches, and handle volumetric flow measurement of clean liquids used in a wide range of applications.

Features & Benefits

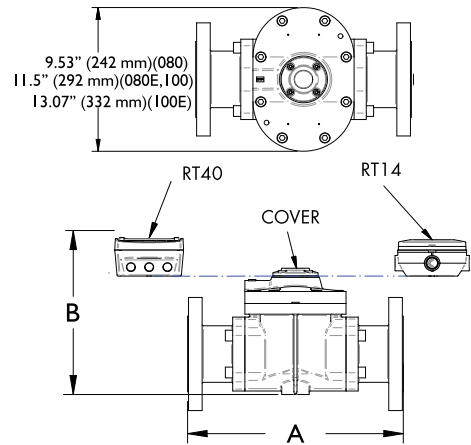
- High accuracy and repeatability, direct volumetric reading
- Measures high and low viscosity liquids
- Quadrature pulse output option and bi-directional flow
- Optional Exd I/IIB approval (ATEX, IECEx)
- No requirement for flow conditioning (straight pipe runs)
- Only two moving parts

Technical Data

	OM080	OM080E	OM100	OM100E
Flow Range l/min	35-750	50-1,000	75-1,500	150-2,500
Connection Size	3"		4"	
Reed Switch Meter Factor (Pulses per litre)	2.65	1.55	1.1	0.56
Hall Effect Meter Factor (Pulses per litre)	10.7	6	4.4	2.24
Body Material	Aluminium or 316 Stainless Steel	Aluminium		
Gear Material	Aluminium or Stainless Steel	Carbon filled PPS		Aluminium (with roller bearings)
Seals	Viton (standard), options for PTFE encapsulated Viton or Buna-N (Nitrile)			
Linearity	+/- 0.5% of Reading			
Max Pressure (Bar)	12		10	
Max Temperature (°C)	120°C standard, 150° high temperature version, 80°C with directly mounted display			
Output	Reed switch (30V, 200 mA max) or Hall effect NPN pulsed output (5-24 Vdc, 20 mA max)			
Options	Explosion Proof, high resolution and directly mounted battery powered displays (ATEX/IECEX versions)			

Dimensional Data

	080A	080S	080E	100	100E
A (Threaded)	354		382	388	414
A (Flanged)	266		294	294	320
B (RT14)	260	257	277	322	399
B (RT40)	264	260	281	326	403
B (cover)	213	206	229	274	352



Ordering Information

0M080 A 00 1 - 2 1 1 RS

Meter Size	
35-750 l/min (3")	OM080
50-1000 l/min Extended Flow range	OM080E
75-1,500 l/min (4")	OM100
150-2,500 l/min (4") Extended Range (Aluminium gears only)	OM100E

Body Material	
Aluminium	A
Extended flow Aluminium version	E
316 Stainless Steel (OM080 only)	S

Gear Material	
PPS (not available for 150°C meters)	00
PPS Keishi cut High Viscosity gears (not available for 150°C meters)	10
Aluminium with Roller Bearings (OM100E only)	44
Stainless Steel (OM080 only)	51
Keishi cut High Viscosity Gears in Stainless Steel (OM080 only)	71

Seal Material	
Viton (standard) -15 to +200°C	1
PTFE encapsulated Viton	3
Buna-N (Nitrile) -65 to +100°C	4

Cable Entries	
M20x1.5 (M16x1.5 for R4 & R7)	1
1/2" NPT	2
3x 16mm drilled holes (for F series & RT40 instruments only)	6

Connections	
BSPP female	1
NPT female	2
Tri-Clamp (1/2 size larger than meter size)	3
ANSI 150LB Flange	4
ANSI 300LB Flange	5
DIN PN16 Flanges	6

Temperature Limits	
120°C	2
150°C (Hall effect output only)	3
120°C (for integral instruments and includes cooling fin)	5
80°C (Meters with integral instruments or OM008 with PPS gears)	8

Integral Options	
No option (just pulsed output)	--
Reed Switch Only (for Intrinsically safe applications)	RS
Explosion proof Exd IIB T3...T6 (Aluminium & Stainless Steel meters) [IECEX & ATEX approved]	E1
Explosion proof Exd I/IIB T3...T6 (Stainless Steel meters only) [IECEX & ATEX mines approved]	E2
Quadrature pulse (2 NPN phased outputs)	QP
Explosion proof ~ Exd (with quadrature pulse) [IECEX & ATEX approved]	Q1
High Resolution Hall Effect output (004 - 006 only)	HR
Explosion proof ~ Exd with HR Hi-Res. Hall option (004-006 only)	H1
RT40 backlit rate totaliser with all outputs (Alloy housing with facia protector) [scalable pulse output, backlight]*#	R4
RT14 backlit rate totaliser with all outputs (GRN housing) [scaled pulse, alarms, 4-20mA, backlight]*#	R5
Intrinsically safe RT14 backlit rate totaliser with all outputs (GRN housing) [scaled pulse, alarms, 4-20mA, backlight][IECEX & ATEX approved]*#	R6
RT40 backlit rate totaliser with all outputs (GRN housing) [scalable pulse output, backlight]*#	R7
E018 backlit rate/tot, pulse, 4-20 mA, lin, HART (Al), Incl. Line Bushing [IECEX & ATEX approved]#	E18
E018 backlit rate/tot, pulse, 4-20 mA, lin, HART (SS), Incl. Line Bushing [IECEX & ATEX approved]#	E19
F018 backlit rate/tot, pulse out, 4-20mA, 10 pt lin, HART#	F18
F018 Intrinsically Safe backlit rate/tot, pulse out, 4-20mA, 10 pt lin, HART [IECEX & ATEX approved]#	F19
F130 Intrinsically Safe 2 stage batch controller [IECEX & ATEX approved]#	F31

*Temp code 5 required for integral instruments between 176°F (80°C) & 250°F (120°C)

#Temp code 8 required for integral instruments below 176°F (80°C) by 20%