OM SERIES LARGE OVAL GEAR FLOWMETER

The 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

PRODUCT CONFIGURATION

1 PRODUCT IDENTIFIER

OM = Oval Gear Meter

2 METER SIZE

080 = 3 inch [76mm], 35-750 l/min (10-200 g/min)
080E = 3 inch [76mm], 50-1000 l/min (13-260 g/min) - Aluminium only
0100 = 4 inch [102mm], 75-1500 l/min (20-400 g/min) - Aluminium only

3 MATERIAL (Body/Gears/Bearing)

A = Aluminum
E = Extended flow Aluminum version (OM080E only)
S = 316L Stainless Steel (OM080 only)

4 ROTOR MATERIAL

0 = PPS - PTFE filled (Polyphenylene Sulfide) rotors
1 = Keishi cut PPS rotors for high viscosity liquids
5 = Stainless Steel (OM080 only)
7 = Keishi cut Stainless Steel rotors for high viscosity liquids (Available for OM080 only)

5 BEARING TYPE

0 = No Bearing - PPS rotor option only
1 = Carbon Ceramic [Standard with Stainless Steel rotors- OM080 only)

6 O-RING MATERIALS

1 = FKM (Viton™) [standard for Alum.] -15°C minimum [-5° F]
3 = PTFE encapsulated FKM (Viton™) -15°C minimum [-5° F]
4 = Buna-N (Nitrile), -40° C minimum [-40° F]

7 TEMPERATURE/PROCESS CONNECTION

-2 = 120°C [250°F] max.
-3 = 150°C [300°F] max. [Hall Effect output only, not available with HP meters] (OM080 only)
-5 = 120°C [250°F] max. [includes integral cooling fin] - 80°C when fitted with integral instruments
-8 = 80°C [176°F] max. when fitted with integral instruments

8 PROCESS CONNECTIONS

1 = BSPP (G) female threaded
2 = NPT female threaded
4 = ANSI-150 RF Flanged
6 = PN16 DIN Flanged

9 CABLE ENTRIES

1 = M20 x 1.5mm
2 = 1/2" NPT

10 INTEGRAL OPTIONS

RS = Reed Switch only - to suit Intrinsically Safe installations
E1 = Explosion proof Exd IIB T4/T6 (aluminum & stainless meters) [IECEx & ATEX approved]
E2 = Explosion proof Exd I/IIB T4/T6 (mines approval, SS meters only) (IECEx & ATEX approved)
E3 = ANZEx certified Exd IIB T4/T6 (aluminium and SS meters)
E4 = ANZEx certified Exd IIB T4/T6 (mines approval, SS meters only)
QP = Quadrature pulse (2 NPN phased outputs)
Q1 = Explosion proof Exd with quadrature pulse [IECEx & ATEX approved]
R3 = Intrinsically Safe rate totaliser with all outputs (GRN housing) (IECEx & ATEX Approved)
R4 = RT40 backlit large digit LCD rate totaliser (Alloy housing with facia protector)
R5 = RT14 backlit large digit LCD rate totaliser (GRN housing with facia protector)
E0 = EB10 batch controller [2 stage DC batcher & totalizer]
F18 = F018 backlit rate totaliser, pulse out, 4-20mA, 10 point linearisation, HART
F19 = F018 backlit rate totaliser, pulse out, 4-20mA, 10 point linearisation, HART [IECEx & ATEX Approved]
F30 = F130 2 stage batch controller backlit
F31 = F130 Intrinsically Safe 2 stage batch controller [IECEx & ATEX Approved]

1	2	3	4	5	6	7	8	9	10	
OM	025	A	5	1	1	-5	2	1	R5	SAMPLE

APPLICATIONS

- Oils
- Fuel
- Diesel
- Truck Metering
- Chemical Additive Injection
- Batching
- Molasses
- Clean Fluids
- Bunker C Fuel Oil
- Oil-Based Paints
- Industrial Fluids
- Chemical Feed Lines

SPECIFICATIONS

	OM080	OM080E	OM0100
Meter Size	3" [80 mm]	3" [80 mm]	4" [100 mm]
*Flow Range (l/min)	35-750	50-1,000	15-550
**Accuracy @3cp:	± 0.5% of reading (accuracy is ± **0.2%** of reading with optional RT12 with non-linearity correction)		
Repeatability	Typically ± **0.03%** of reading		
Temperature range	-20°C to +120°C (-4° F to +250° F) refer to factory for lower temperature		
Pressure Reading Threaded Meter - Bar (Psi):	OM080 | OM080E | OM100		
Aluminum	12 (175)	12 (175)	10 (145)
316 Stainless Steel	12 (175)	N/A	N/A
Recommended Filtration	40 mesh (350 microns)		

*Maximum flow is to be reduced as viscosity increases, see flow de-rating guide. Max recommended pressure drop is 100Kpa (14.5 psi).

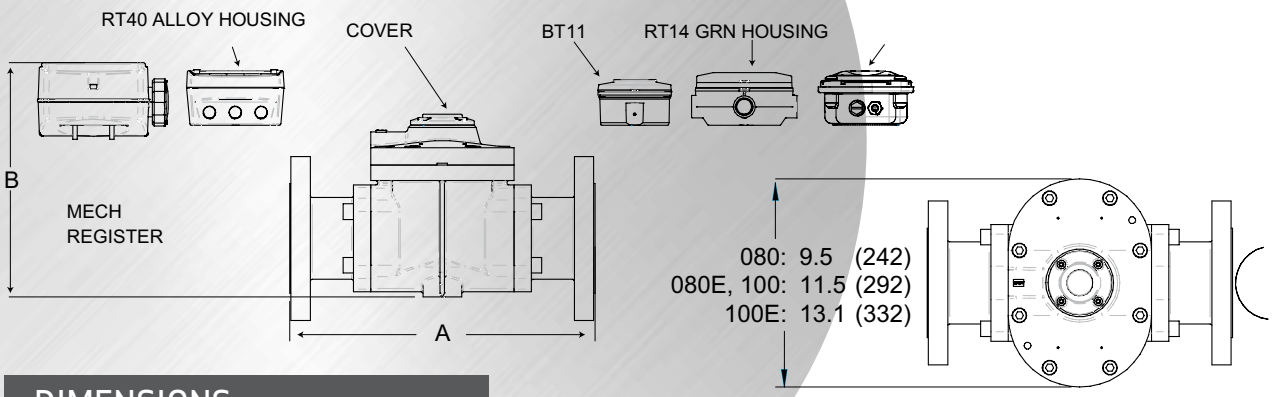
**Accuracy ±1% of reading with M-Series mechanical registers and accuracy ±0.5% of reading with V-Series mechanical register.

ELECTRICAL

	OM080	OM080E	OM0100
Output Pulse Resolution	Pulses/**litre** (Pulses/**gallon**) - Nominal		
Reed Switch	2.65 (10.00)	1.55 (5.68)	1.10 (4.15)
Hall effect	10.70 (40.50)	6.0 (22.70)	4.40 (16.60)
Quadrature hall option	5.33 (20.00)	3.00 (11.40)	2.20 (8.30)
Reed switch output	30Vdc x 200mA max. [maximum thermal shock 10°C (18° F) / minute]		
Hall Effect output (NPN)	3 wire open collector, 5-24Vdc max., 20mA max.		
Optional outputs	4-20mA, scaled pulse, quadrature pulse, flow alarms or two stage batch control		

APPROVALS

CE



DIMENSIONS

All dimensions are inches ± .079" (millimeters ±2mm)

Dim.	A	A	A		B	B	B	B
Connection type	**OM080**	**OM080E**	**OM100**	**fitted with...**	**OM080-A**	**OM080S**	**OM080E**	**OM100**
A.N.S.I. 150	354	382	388	RT14 register	260	257	277	322
DIN 16	354	382	388	RT40 register	264	260	281	326
B.S.P	266	294	294	cover	213	206	229	274
N.P.T	266	294	294	mech register	270	N/A	288	333

Service & Warranty: For technical assistance, warranty replacement or repair contact your distributor:
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