



## OM SERIES MECHANICAL FLOWMETER

Volumetric flow measurement of clean liquids. Suitable for applications for safe area metering of fuel oils, lubricants, and other non-flammable viscous chemicals.

### FEATURES / BENEFITS

- High accuracy oval gear technology with low pressure drop can be used in gravity-fed applications
- No requirement for flow conditioning or straight pipe runs makes them ideal for compact installations with limited space
- Robust aluminum mechanical registers
- Optional air eliminator/strainers

## PRODUCT CONFIGURATION

### PRODUCT IDENTIFIER 1

**OM** = Oval Gear Meter

### METER SIZE 2

- 015** = 1/2" (15 mm), 0.26-10.6 GPM (1-40 L/min)
- 025** = 1" (25 mm), 2.6-40 GPM (10-150 L/min)
- 040** = 1 1/2" (40 mm), 4-66 GPM (15-250 L/min)
- 050** = 2" (50 mm), 8-130 GPM (30-500 L/min) (PPS rotors)
- 080** = 3" (80 mm), 10-200 GPM (35-750 L/min)
- 080E** = 3" Extended flow (80 mm), 13-260 GPM (50-1000 L/min)
- 100** = 4" (100 mm), 20-400 GPM (75-1550 L/min)
- 100E** = 4" Extended Flow (100 mm), 40-660 GPM (150-2500 L/min) (only available with Aluminum Rotors)

### BODY MATERIAL 3

- A** = Aluminum
- E** = Extended flow Aluminum (OM080E & OM100E)
- S** = 316L Stainless Steel (OM015 - OM080)

### ROTOR MATERIAL / BEARING TYPE 4

- 00** = PPS / No Bearing
- 10** = Keishi cut PPS / No Bearing
- 44** = Aluminum / hardened steel roller bearing (OM100E only)
- 51** = Stainless Steel / Carbon Ceramic (OM015-OM080)
- 71** = Keishi cut, Stainless Steel / Carbon Ceramic (OM015-OM080) (for high viscosity liquids)

### O-RING MATERIAL 5

- 1** = Viton™ 5°F min. (-15°C)
- 3** = Teflon encapsulated Viton™ (includes KALREZ shaft seals on 080 - 100E sizes) 5° F min. (-15° C)
- 4** = Buna-N (Nitrile), -40° F minimum (-40° C)

### MAXIMUM TEMPERATURE LIMIT 6

**-8** = 176° F (80° C) max.

### PROCESS CONNECTIONS 7

- 00** = No fittings (025-100E)
- 10** = BSPP (G) female threaded (ISO 228)
- 20** = NPT female threaded
- 40** = ANSI-150 RF Flanged
- 50** = ANSI-300 RF Flanged (015-050)
- 60** = PN16 DIN Flanged

### MECHANICAL REGISTERS 8

- M3** = 4 digit mechanical totalizer - litre  
Totalizer capacity  
(OM015-OM040) 9999.9 litre  
(OM050-OM100E) 99999 litre
- M4** = 4 digit mechanical totalizer - US gallons  
Totalizer capacity  
(OM015-OM040) 9999.9 gallon  
(OM050-OM100E) 99999 gallon
- V1** = 5 digit mechanical reset register - litre  
Total capacity  
(OM50-OM100E) 999999 litre

1
2
3
4
5
6
7
8

--->>>> **OM 100 A 51 1 -8 10 M3**

## APPLICATIONS

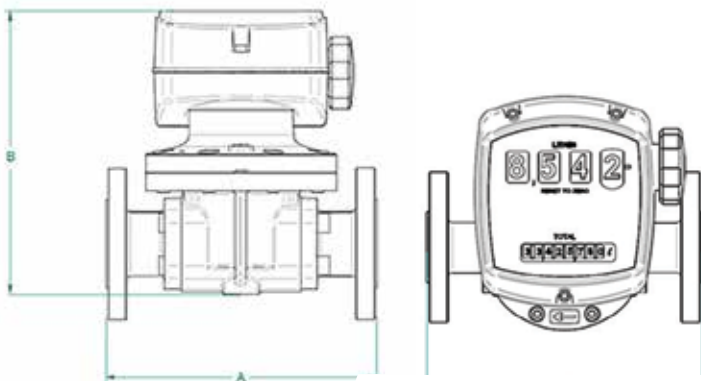
- Automotive
- Aviation
- Mining
- Power
- Chemical
- Pharmaceutical
- Food
- Paint
- Petroleum Industries
- Environmental Applications

## SPECIFICATIONS

|  | OM015                              | OM025                        | OM040                      | OM050  | OM080                        | OM80E                         | OM100                         | OM100E                         |
|--|------------------------------------|------------------------------|----------------------------|--|------------------------------|-------------------------------|-------------------------------|--------------------------------|
| Nominal Size:                            | 1/2" (15 mm)                       | 1" (25 mm)                   | 1-1/2" (40 mm)             | 2" (50 mm)   | 3" (80 mm)                   | 3" (80 mm)                    | 4" (100 mm)                   | 4" (100 mm)                    |
| Nominal Flow Range* @ 3cP:               | 0.26-10.6 GPM<br>(1 - 40 L/min)    | 2.6-40 GPM<br>(10-150 L/min) | 4-66 GPM<br>(15-250 L/min) | 8-118 GPM<br>(30-450 L/min)<br>(SS rotors)             | 10-200 GPM<br>(35-750 L/min) | 13-260 GPM<br>(50-1000 L/min) | 20-400 GPM<br>(75-1500 L/min) | 40-660 GPM<br>(150-2500 L/min) |
|  |                                    |                              |                            | 8-130 GPM<br>(30-500 L/min)<br>(PPS rotors)            |                              |                               |                               |                                |
| Accuracy:                                | ±1% of reading for M registers     |                              |                            | ±1% of reading for M registers (±0.5% for V registers) |                              |                               |                               |                                |
| Repeatability:                           | Typically ± 0.03% of reading       |                              |                            |  |                              |                               |                               |                                |
| Ambient Temp. Range                      | 5° F - 176° F (-15° C - 80° C)     |                              |                            |  |                              |                               |                               |                                |
| Max. Pressure (threaded)                 | 580 psi<br>(40 bar)                | 580 psi<br>(40 bar)          | 435 psi<br>(30 bar)        | 285 psi<br>(20 bar)                                    | 175 psi<br>(12 bar)          | 175 psi<br>(12 bar)           | 145 psi<br>(10 bar)           | 145 psi<br>(10 bar)            |
| M Register                               | 4 digit resettable & NEMA 4 (IP65) |                              |                            |  |                              |                               |                               |                                |
| V Register                               | n/a                                |                              |                            | 5 digit resettable & NEMA 3S (IP54)                    |                              |                               |                               |                                |
| Recommended Filtration:                  | 100 mesh (150 µm)                  |                              |                            | 40 mesh (350 µm)                                       |                              |                               |                               |                                |
| Face-to-Face Dimension A - Threaded      | 4.33"<br>(110 mm)                  | 5.39"<br>(137 mm) AL         | 7.4"<br>(188 mm)           | 8.35"<br>(212 mm)                                      | 10.5"<br>(266 mm)            | 11.6"<br>(294 mm)             | 11.6"<br>(294 mm)             | 12.6"<br>(320 mm)              |
|  |                                    | 6.93"<br>(176 mm) SS         |                            |  |                              |                               |                               |                                |
| Face-to-Face Dimension A - Flanged       | 7.44"<br>(189 mm)                  | 7.8"<br>(198 mm) AL          | 9.92"<br>(252 mm)          | 10.91"<br>(277 mm)                                     | 13.93"<br>(354 mm)           | 15.04"<br>(382 mm)            | 15.28"<br>(388 mm)            | 16.3"<br>(414 mm)              |
|  |                                    | 9.33"<br>(237 mm) SS         |                            |  |                              |                               |                               |                                |
| Meter Base-to-Register Top - Dimension B | 7.01"<br>(178 mm)                  | 7.4"<br>(188 mm) AL          | 8.94"<br>(227 mm)          | 9.33"<br>(237 mm)                                      | 10.63"<br>(270 mm)           | 11.34"<br>(288 mm)            | 13.11"<br>(333 mm)            | 16.4"<br>(416 mm)              |
|  |                                    | 8.43"<br>(214 mm) SS         |                            |  |                              |                               |                               |                                |
| Meter Cap Width                          | 4.33"<br>(110 mm)                  | 4.72"<br>(120 mm)            | 6.23"<br>(160 mm)          | 7.09"<br>(180 mm)                                      | 9.53"<br>(242 mm)            | 11.5"<br>(292 mm)             | 11.5"<br>(292 mm)             | 13.1"<br>(332 mm)              |

\*Maximum flow reduces as viscosity increases, see flow de-rating guide.  
Max recommended Pressure drop is 14.5 psi (1 bar).

## DIMENSIONS



## APPROVALS



NEMA  
3S / 4

IP54/65