

# 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), 8-118 GPM (30-450 L/min) with SS Rotors

**050** = 2" (50 mm), 8-130 GPM (30-500 L/min) with PPS Rotors

#### **BODY MATERIAL** 3

 $\mathbf{A} = Aluminum$ 

**M** = Intermediate pressure aluminum meter (2000 psi [138 bar] max.) (0M025 only)

S = 316L Stainless Steel

N = Intermediate Pressure 316L SS (0M015-0M025N = 1450 psi [100 bar] (0M040N-0M050N = 725 psi / 50 bar)

#### ROTOR MATERIAL / BEARING TYPE 4

00 = PPS (not available for 300° F [150° C] meters) / No bearing

10 = Keishi cut PPS (for high viscosity liquids) (not available for 300° F [150° C] meters) / No bearing

**51** = Stainless Steel / Carbon Ceramic

71 = Keishi cut Stainless Steel (for high viscosity liquids) / Carbon Ceramic

#### O-RING MATERIAL 5

1 = FKM (Viton<sup>™</sup>) (standard for Alum.) -5° F minimum (-15° C)

3 = PTFE encapsulated FKM (Viton™)

4 = Buna-N (Nitrile), -40° F minimum (-40° C)

#### MAXIMUM TEMPERATURE LIMIT 6

 $-2 = 250^{\circ} \text{ F } (120^{\circ} \text{ C}) \text{ max.}$ 

-3 = 300° F (150° C) max. (Hall Effect) (Includes Stainless Steel terminal cover)

-5 = 250° F (120° C) max. (includes integral cooling fin)

-8 = 176° F (80° C) max. (meters with integral instruments)

### PROCESS CONNECTIONS 7

**0** = No fittings (Not available on 015 size)

1 = BSPP (G) female threaded (ISO 228)

2 = NPT female threaded

3 = Sanitary Fittings (are 1/2" (13 mm) larger than meter size)

4 = ANSI-150 RF Flanged

**5** = ANSI-300 RF Flanged

6 = PN16 DIN Flanged

#### CABLE ENTRIES 8

 $1 = M20 \times 1.5 \text{ mm} (M16 \times 1.5 \text{ mm for R4 option})$ 

2 = 1/2 in. NPT

 $6 = 3 \times 16 \text{ mm}$  drilled holes (for F instruments only)

#### **OM SERIES MEDIUM CAPACITY (OVAL GEAR METERS)**

The FLOMEC® OM Medium Capacity Meters are great for medium flow ranges and have the ability to handle a wide range of fluid viscosities.

#### 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

#### INTEGRAL OPTIONS 9

= Combination Reed Switch and Hall Effect Sensor

SS = Stainless Steel terminal cover

**RS** = Reed Switch only - to suit Intrinsically safe installations

**E1** = Explosion proof Exd IIB T3...T6 (Aluminum & Stainless meters) [IECEx & ATEX approved]

**E2** = Explosion proof Exd I/IIB T3...T6 (stainless meters only) [IECEx & ATEX mines approved]

**QP** = Quadrature pulse (2 NPN phased outputs)

**QPN** = Quadrature pulse (2 NPN phased outputs) with Australian NZNMI approval for trade sale

Q1 = Explosion proof Exd (with quadrature pulse) [IECEx & ATEX

Q1N = Explosion proof Exd (IECEx & ATEX) with Quadrature pulse with Australian NMI & NZ approval for trade sale (Not available on 015 size)

R6 = Intrinsically safe RT14 with all outputs (GRN housing) [IECEx & ATEX approved]\*#

**R6G** = RT14 Intrinsically Safe rate totalizer with all outputs (GRN Housing) [IECEx & ATEX approved] (with gallons calibration)\*#

**R4** = RT40 rate totalizer with backlit large digit LCD [scalable pulse output, backlight]\*#

R4G = RT40 rate totalizer with backlit large digit LCD (Alloy housings with facia) (with gallons calibration)\*#

**R5** = RT14 backlit rate totalizer with all outputs (GRN Housing)\*#

**R5G** = RT14 backlit rate totalizer with all outputs (GRN Housing) (with gallons calibration)\*#

**E0** = EB10 batch controller [2 stage DC batcher & totalizer] (GRN Housing)\*#

**EOG** = EB10 batch controller [2 stage DC batcher & totalizer] (with gallons calibration) (GRN Housing)\*#

**E18** = E018 backlit rate/tot, pulse, 4-20mA, 10 point linearization, HART, aluminium body [IECEx & ATEX approved] (Not available with OHART jet) inless steel body [IECEx & ATEX approved] (Not avail-

E19 ab EOWAth add tisizat)#tot, pulse, 4-20mA, 10 point linearization, F18 = F018 backlit rate/tot, pulse, 4-20mA, 10 point linearization,

HART# F19 = F018 backlit rate/tot, pulse, 4-20mA, 10 point linearization,

HART, Intrinsically safe [IECEx & ATEX approved]# F31 = Intrinsically safe F130 2 stage batch controller [IECEx & ATEX

approved]#



\*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%



### **SPECIFICATIONS**

|                                      | OM015  | OM025                 | OM040               | OM050                                 |  |  |
|--------------------------------------|--|-----------------------|---------------------|---------------------------------------|--|--|
| Nominal<br>Size:                     | 1/2"<br>(13 mm)  | 1"<br>(25 mm)         | 1 1/2"<br>(38 mm)   | 2"<br>(51 mm)                         |  |  |
| *Flow<br>Range:                      | 0.26-10.6<br>GPM   | 2.6-40<br>GPM         | 4-66<br>GPM         | 8-118 GPM<br>(30-450 L/<br>min) (SS)  |  |  |
|                                      | (1-40 L/min)   | (10-150 L/min)        | (15-250 L/<br>min)  | 8-130 GPM<br>(30-500 L/<br>min) (PPS) |  |  |
| Accuracy<br>@3cp:                    | $\pm~0.5\%$ of reading (accuracy is $\pm~0.2\%$ of reading with optional RT14 with non-linearity correction) |                       |                     |                                       |  |  |
| Repeatability:                       | Typically ± 0.03% of reading   |                       |                     |                                       |  |  |
| Temperature<br>Range:                | -40° F to +300° F (-40° C to +150° C) refer to factory for lower temperature                                 |                       |                     |                                       |  |  |
| Pressure Rat                         | ing (Threaded  | Meter):               |                     |                                       |  |  |
| Aluminum                             | 990 psi<br>(68 bar)  | 990 psi<br>(68 bar)   | 435 psi<br>(30 bar) | 285 psi<br>(20 bar)                   |  |  |
| Intermediate<br>Pressure<br>Aluminum |  | 2000 psi<br>(138 bar) |                     |                                       |  |  |
| 316 Stainless<br>Steel               | 990 psi<br>(68 bar)  | 990 psi<br>(68 bar)   | 435 psi<br>(30 bar) | 550 psi<br>(38 bar)                   |  |  |
| Intermediate<br>Pressure SS          | 1450 psi<br>(100 bar)  | 1450 psi<br>(100 bar) | 725 psi<br>(50 bar) | 725 psi<br>(50 bar)                   |  |  |

|                                     | OM015 OM025 OM040  |                     | OM040               | OM050               |  |  |  |  |
|-------------------------------------|--|---------------------|---------------------|---------------------|--|--|--|--|
| Pressure Rating (Mechanical Meter): |  |                     |                     |                     |  |  |  |  |
| Aluminum                            | 580 psi 580 psi 435 psi (40 bar) (40 bar) (30 bar)                             |                     | 285 psi<br>(20 bar) |                     |  |  |  |  |
| 316 Stainless<br>Steel              | 580 psi<br>(40 bar)  | 580 psi<br>(40 bar) | 435 psi<br>(30 bar) | 285 psi<br>(20 bar) |  |  |  |  |
| Recom-<br>mended<br>Filtration      | 100 mesh (150 μm)  |                     |                     |                     |  |  |  |  |
| Electrical:                         | Electrical:  |                     |                     |                     |  |  |  |  |
| Output<br>Pulse<br>Resolution:      | Pulses / gallon (Pulses / L) - Nominal   |                     |                     |                     |  |  |  |  |
| Reed Switch                         | 318 (84) 120 (27) 53 (14) 25 (6.   |                     |                     |                     |  |  |  |  |
| Hall Effect                         | 636 (168)  | 405 (107)           | 212 (56)            | 99 (26)             |  |  |  |  |
| QP -<br>Quadrature<br>Hall Option   | 636 (168)  | 204 (54)            | 106 (28)            | 49 (13)             |  |  |  |  |
| Reed Switch<br>Output               | 30V (dc) x 200mA max. [maximum thermal shock 18° F<br>(10° C) / minute]        |                     |                     |                     |  |  |  |  |
| Hall Effect<br>Output (NPN)         | 3 wire open collector, 5-24V (dc) max., 20mA max.                              |                     |                     |                     |  |  |  |  |
| Optional<br>Outputs                 | 4-20mA, scaled pulse, quadrature pulse, flow alarms or two stage batch control |                     |                     |                     |  |  |  |  |

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

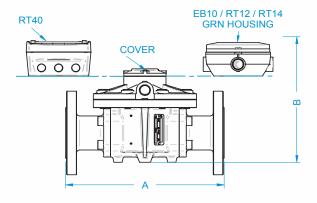
### **DIMENSIONS** All dimensions are ± .079 (±2 mm)

| Modular               | A                |                  |                  |                  |                   |                   |
|-----------------------|------------------|------------------|------------------|------------------|-------------------|-------------------|
| Fitting               | OM015            | OM025A           | OM025S/N         | OM040            | OM050             | OM050E            |
| A.N.S.I. 150<br>DIN16 | 7.4"<br>(189 mm) | 7.8"<br>(198 mm) | 9.3"<br>(237 mm) | 9.9"<br>(252 mm) | 10.9"<br>(277 mm) | 10.9"<br>(277 mm) |
| B.S.P<br>N.P.T.       | 4.3"<br>(110 mm) | 5.4"<br>(137 mm) | 6.9"<br>(176 mm) | 7.4"<br>(188 mm) | 8.3"<br>(212 mm)  | 8.3"<br>(212 mm)  |

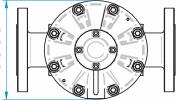
| Configuration                        | В                |                  |                  |                  |                  |                  |                  |                   |
|--------------------------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|-------------------|
|                                      | OM015A           | OM015S/N         | OM025A           | OM025S/N         | OM040A           | OM040S/N         | OM050            | OM050E            |
| EB10 / RT12<br>/ RT14 GRN<br>Housing | 6.0"<br>(154 mm) | 5.8"<br>(148 mm) | 6.6"<br>(168 mm) | 6.5"<br>(165 mm) | 7.9"<br>(203 mm) | 7.6"<br>(194 mm) | 8.6"<br>(218 mm) | 10.5"<br>(268 mm) |
| RT40 Alloy<br>Housing                | 6.2"<br>(157 mm) | 5.9"<br>(151 mm) | 6.7"<br>(171 mm) | 6.6"<br>(168 mm) | 8.1"<br>(206 mm) | 7.8"<br>(197 mm) | 8.7"<br>(221 mm) | 10.7"<br>(271 mm) |
| Cover                                | 4.2"<br>(106 mm) | 3.9"<br>(100 mm) | 4.7"<br>(123 mm) | 4.6"<br>(117 mm) | 6.1"<br>(155 mm) | 5.7"<br>(146 mm) | 6.7"<br>(170 mm) | 8.6"<br>(220 mm)  |

# **APPLICATIONS**

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



OM040: Ø6.3" (160 mm) OM050: Ø7.1" (180 mm) OM015: Ø4.3" (110 mm) OM025: Ø4.7" (120 mm)



# **APPROVALS**











IP66/67

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