

OG3 - 10 L/MIN OVAL GEAR DATA SHEET

- Excellent chemical resistance
- Rugged construction
- Individual calibration
- High viscosity capability
- Low pressure loss
- No flow conditioning required
- Hall, reed or Namur sensor
- Accuracy 1.0% water
- 0.5% reading oil
- ±0.25% reading*

- 0.1% repeatability
- IP67/NEMA 4 protection
- Models to 400 Bar
- Non-metallic option
- * When used with our metra-smart
- Ideal for
- Engine test
- Oil flow
- High viscosity fluids
- OEM equipment
- Hazardous areas



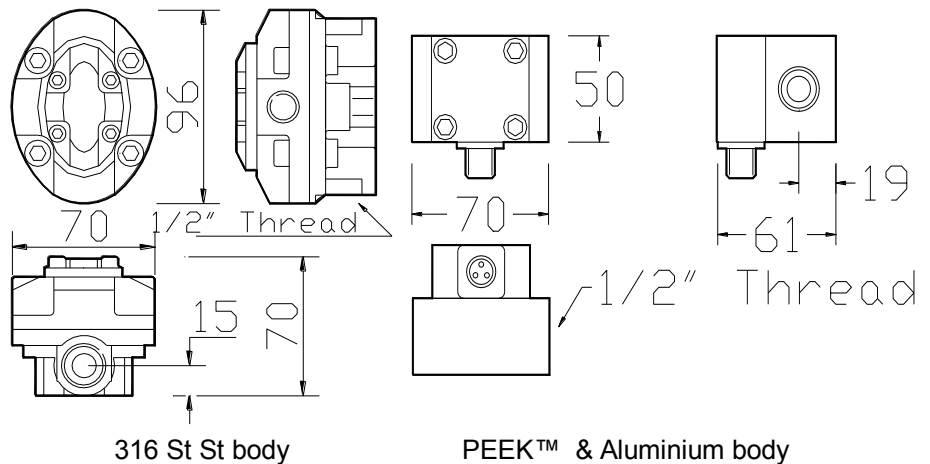
OG3 St. St.

The compact rugged OG3 oval gear flowmeter is designed to give high performance with low cost of ownership. It has a standard flow range from 0.05 to 10 L/Min on 30 Cstk oil and 0.5 to 10 L/min on water like liquids. It can have totally non-metallic wetted components, PEEK™, ceramic and an elastomer which makes this the ideal choice for the metering of aggressive chemicals. The standard inlet and outlet are 1/2" BSP female threads. For OEM use alternatives, including manifold mountings, are available. The standard model is 316 St St with Viton™ 'O' ring seal. For hazardous areas either the Namur sensor or the reed switch (simple apparatus) may be used.



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Order Codes

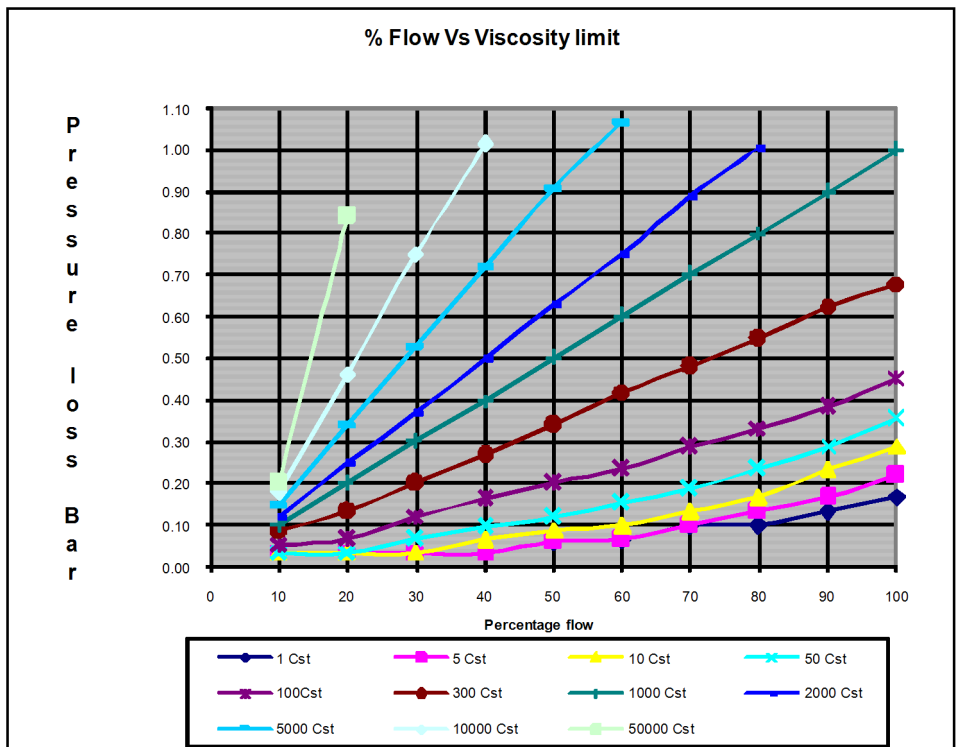
- Body** **OG3-S** 316 Stainless Steel
Type OG3-A Aluminum body
 OG3-P PEEK body
- Temp rating**
 S 80°C
 T 100°C
 U 150°C
- Pressure rating**
 5 50 Bar (St St standard)
 1 10 Bar (Alu & PEEK std.)
 4 400 Bar (St St only)
- 'O' ring Mat'l**
 V - Viton
 N - Nitrile
 E - EPDM
 K - Silicon
- Detector Type**
 H Hall effect
 R Reed switch
 N Namur
- Pipe thread size**
 Q - 1/4"
 H - 1/2"
 T - 3/4"
 U - 1"
- Conn- ections**
 B - BSP F
 N - NPT F
 F - Flanged
 (specify)

e.g. **OG3-S S 5 - V H H-B** is a standard flowmeter with a flow range of 0.5 to 10 L/Min, 316 stainless steel body, 50 Bar pressure rating, Viton seal, Hall effect detector and 1/2" BSP female fittings with a standard 6 point traceable water calibration.

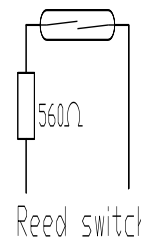
Standard Materials of Construction

- Body and cap - 316 St St
 PEEK
 Aluminium
- 'O' Ring - Viton
- Gears - PEEK
- Magnets - Ceramic

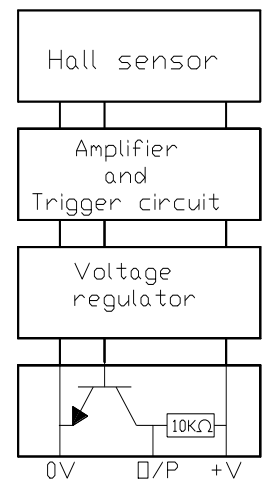
| | | Stainless std. | Aluminium std. | PEEK Std. |
|----------------------------------|--------------|----------------------|----------------------|----------------------|
| Sample product codes ⇒ | | OG3-SS5-VHH-B | OG3-AS1-VHH-B | OG3-PS1-VHH-B |
| Flow range | - Water | 0.5 - 10 LPM | 0.5- 10 LPM | 0.5- 10 LPM |
| | - 30 cSt Oil | 0.05-10LPM | 0.05-10LPM | 0.05-10LPM |
| Wetted materials - Body | | 316 Stainless steel | Aluminium | PEEK™ |
| - Gears | | PEEK™ | PEEK™ | PEEK™ |
| - Seal | | Viton™ | Viton™ | Viton™ |
| - Magnet | | Ceramic | Ceramic | Ceramic |
| Standard pressure rating | | 50 Bar | 10 Bar | 10 Bar |
| Accuracy - Water | | ± 1.0 % | ± 0.5 % FSD | ± 0.5 % FSD |
| - 30 cSt oil | | ± 1.0% Reading | ± 1.0% Reading | ± 1.0% Reading |
| Repeatability | | ± 0.1% | ± 0.1% | ± 0.1% |
| Detector type | | Hall effect | Hall effect | Hall effect |
| Terminations | | M12 instrument skt | M12 instrument skt | M12 instrument skt |
| Approximate 'K' factor - Pulse/L | | 400 | 400 | 400 |



At the heart of the meter are a pair of toothed oval gears one of which contains chemically resistant magnets, the gears rotate freely on robust bearings. Rotation is detected through the chamber wall by a Hall effect detector, Namur sensor or a reed switch giving approximately 400 pulses per litre passed. The output is an NPN pulse or a voltage free contact closure either of which is readily interfaced with most electronic display or recording devices. This combination of materials and technology ensures a long life product with reliable, accurate operation throughout.



Reed switch



Sensor block diagram