

# OG1 - 1 L/MIN OVAL GEAR DATA SHEET

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



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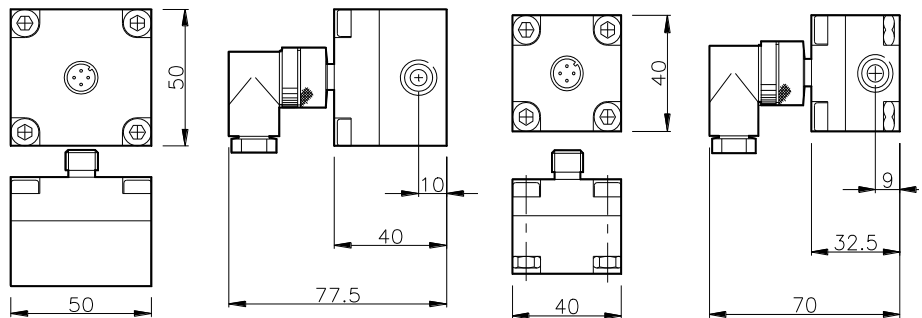
Web [www.flowmeters.co.uk](http://www.flowmeters.co.uk)

Sales@flowmeters.co.uk



OG1 400 Bar

The compact rugged OG1 oval gear flowmeter is designed to give high performance with a low cost of ownership. It has a standard flow range from 0.01 to 1 L/Min on 30 Cstk oil and 0.1 to 1.0 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 ¼" 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.



PEEK™ body ¼" thread

316 St St & aluminium body ¼" thread

# Order Codes

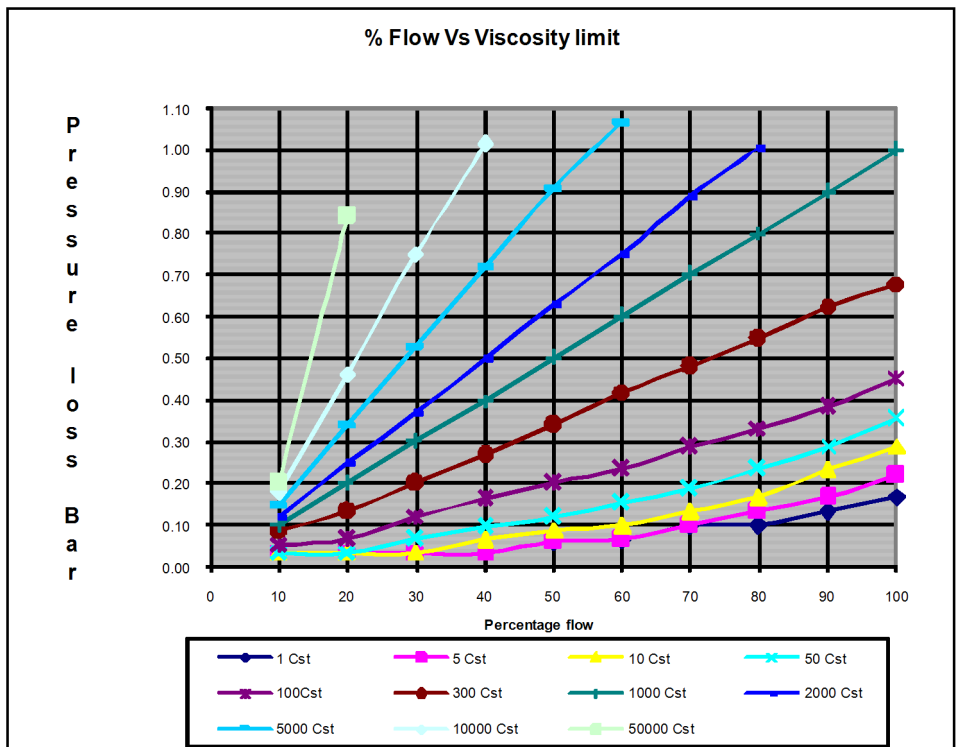
- Body** **OG1-S** 316 Stainless Steel  
**Type** OG1-A Aluminum body  
 OG1-P PEEK body
- Temp rating**  
 S 80°C  
 T 100°C  
 U 150°C
- Pressure rating**  
 5 50 Bar (St St standard)  
 1 10 Bar (Alu & PEEK std.)  
 4 400 Bar (St St only)
- 'O' ring Mat'l**  
 V - Viton  
 N - Nitrile  
 E - EPDM  
 K - Kalrez
- Detector Type**  
 H Hall effect  
 R Reed switch  
 N Namur
- Pipe thread size**  
 Q - 1/4"  
 H - 1/2"  
 T - 3/4"  
 U - 1"  
 P - 1 1/2"  
 D - 2"
- Connections**  
 B - BSP F  
 N - NPT F  
 F - Flanged  
 (specify)

e.g. **OG1-S S 5 - V H Q-B** is a standard flowmeter with a flow range of 0.1 to 1.0 L/Min, 316 stainless steel body, 50 Bar pressure rating, Viton seal, Hall effect detector and 1/4" 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.
<b>Sample product codes</b> ⇒		<b>OG1-SS5-VHQ-B</b>	<b>OG1-AS1-VHQ-B</b>	<b>OG1-PS1-VHQ-B</b>
Flow range	- Water	0.1– 1.0 LPM	0.1– 1.0 LPM	0.1– 1.0 LPM
	- 30 cSt Oil	0.01-1.0LPM	0.01-1.0LPM	0.01-1.0LPM
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 % FSD	± 1.0 % FSD	± 1.0 % FSD
- 30 cSt oil		± 0.75% FSD	± 0.75% FSD	± 0.75% FSD
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		2050	2050	2050



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 2050 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.

