

Product information

Metra-flow OG1 1 L/Min oval gear meter

- Excellent chemical resistance
- Rugged construction
- Individual calibration
- High viscosity capability
- Low pressure loss
- No flow conditioning required
- Compact meter assembly
- Hall or reed switch sensor
- Accuracy 1.0% FSD water
0.5% FSD oil
- $\pm 0.5\%$ reading *
- 0.1% repeatability
- IP67/NEMA 4 protection
- Models to 400 Bar
- Non-metallic option

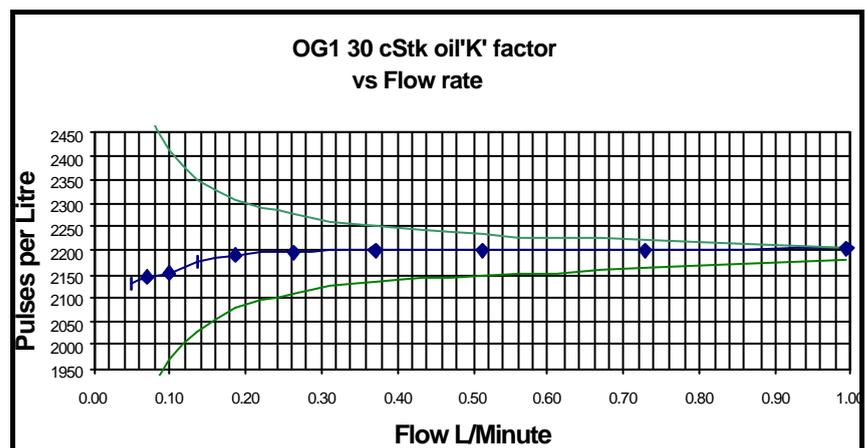
* When used with our metra-smart instrument

Ideal for

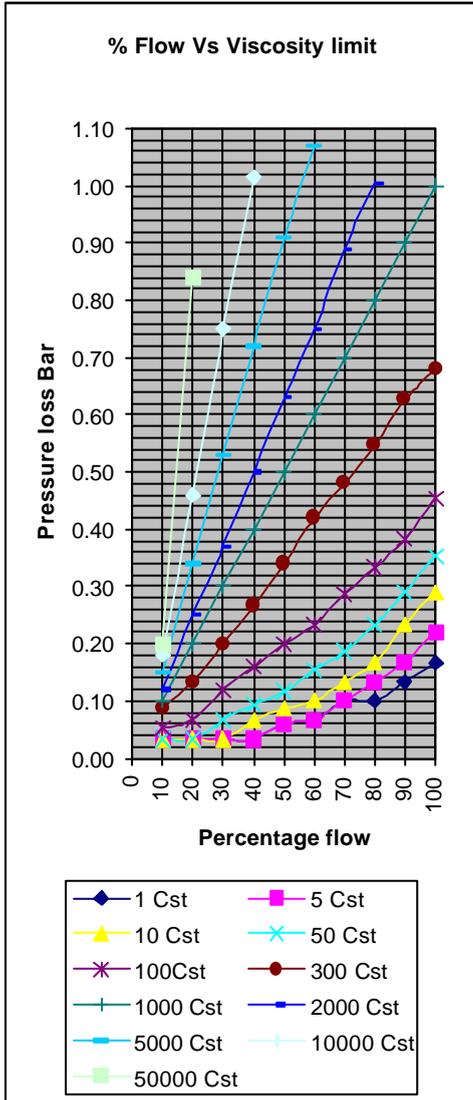
- ◆ Engine test
- ◆ Oil flow
- ◆ High viscosity fluids
- ◆ OEM equipment



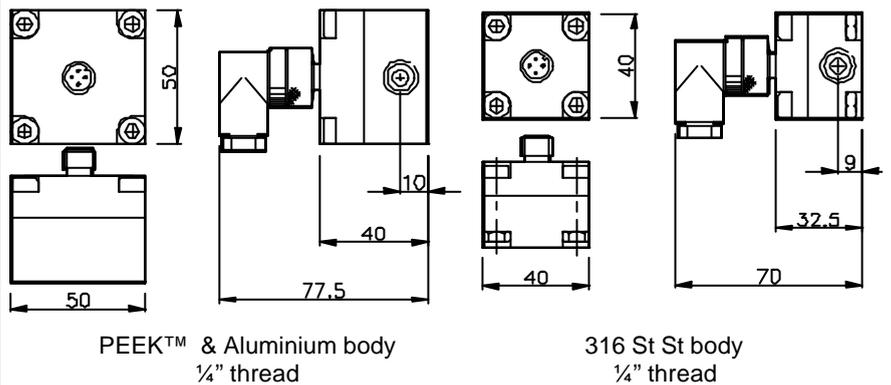
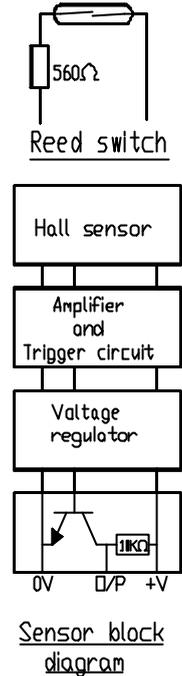
The compact rugged OG1 oval gear flowmeter is designed to give high performance with a low cost of ownership. It has a standard flow range from 0.01 to 1 L/Min on 30 Cstk oil and 0.1 to 1.0 L/min on water like liquids. It can have totally non-metallic wetted components, PEEK™, ceramic and an elastomer which makes this the ideal choice for the metering of aggressive chemicals. The standard inlet and outlet are ¼" female threads. For OEM use alternatives, including manifold mountings, are available. The standard model is 316 St St with Viton™ 'O' ring seal.



Sample product codes →	Stainless standard OG1-SS5-VHQ-B	Aluminium standard OG1-AS1-VHQ-B	PEEK Standard OG1-PS1-VHQ-B
Flow range - Water - 30 cSt Oil	0.1– 1.0 LPM 0.01-1.0LPM	0.1– 1.0 LPM 0.01-1.0LPM	0.1– 1.0 LPM 0.01-1.0LPM
Wetted materials - Body - Gears - Seal - Magnet	316 Stainless steel Carbon filled PEEK™ Viton™ Ceramic	Aluminium Carbon filled PEEK™ Viton™ Ceramic	PEEK™ Carbon filled PEEK™ Viton™ Ceramic
Accuracy - Water - 30 cSt oil	± 1.0 % FSD ± 0.75% FSD	± 1.0 % FSD ± 0.75% FSD	± 1.0 % FSD ± 0.75% FSD
Repeatability	± 0.1%	± 0.1%	± 0.1%
Detector type	Hall effect	Hall effect	Hall effect
Terminations	M12 instrument socket	M12 instrument socket	M12 instrument socket
Approximate 'K' factor - Pulses/Litre	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 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.



Model	Body material	Temp rating	Pressure rating	Seal material	Detector type	Pipe thread	Connections	Display mounting options
OG1	316 St St	80°C	50 Bar	Viton	Hall effect	1/4" (OG1&2 standard)	BSP F	Rate & Total on meter
OG1	Aluminium	100°C	10 Bar	Nitrile	Reed switch	1/2" (OG3 Standard)	NPT F	Rate & total Ex on meter
	PEEK™	150°C	400 Bar	EPDM		3/4" (OG4 standard)	Flanged (specify)	Rate & Total plus 4-20mA
		300°F	5880 PSI	Kalrez		1" (OG5 standard)		Rate & total + 4-20mA Ex
						1 1/2" (OG6 standard)		Metra-Batch on meter
						2" (OG7 standard)		Metra-Batch remote

A stainless steel meter rated at 80°C, 50 Bar, with Viton™ seal, Hall effect detector and a 1/4" BSP thread would have the order code :-OG1-SS5-VHQ-B