

# OG1 1L/Min Oval Gear Meter

## Technical Product data sheet



### Features

- Excellent chemical resistance
  - Rugged construction
  - High visibility
  - Individual calibration
  - High viscosity capability
  - Low pressure loss
  - No flow conditioning required
  - Compact meter assembly
  - Hall, reed switch or Namur sensor
  - Accuracy        1.0% FSD water  
                          0.75% FSD oil
  - $\pm 0.5\%$  reading \*
  - 0.1% repeatability
  - IP67/NEMA 4 protection
  - Non-metallic option
  - Up to 700 bar
- \* When used with our metra-smart instrument

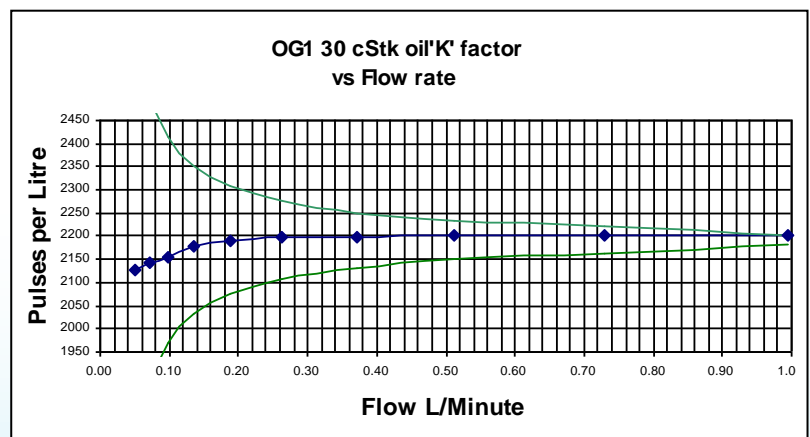
#### Ideal for

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

### OG1 1L/Min Oval Gear Meter

The compact rugged oval gear flowmeter is designed to give high performance with a low cost of ownership. The meters cover flow ranges from 0.01 to 1.0 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. For OEM use alternatives, including manifold mountings, are available. The standard models have 316 St St or PEEK™ bodies with Viton™ 'O' ring seals.

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.



## OG1 1L/Min Oval Gear Meter

### Order Codes

Model	<b>OG1</b>
Body mat'l	<b>S</b> - 316 St St 50 bar std P - PEEK™ 10 bar max
Temp rating	<b>S</b> = 80°C / 158°F T = 100°C / 212°F U = 150°C / 300°F
Pressure Rating	<b>5</b> - 50 Bar 750 PSI (St St) 1 - 10 Bar 150 PSI (Peek™) 4 - 400 Bar 5880 PSI (St St) 7 - 700 Bar 10150 PSI (St St)
Seal material	<b>V</b> - Viton™ N - Nitrile E - EPDM K - Kalrez
Detector type	<b>H</b> - Hall Effect R - Reed switch N - Namur
Pipe thread	<b>2</b> - 1/4" (OG1 std)
Connections	<b>B</b> - BSP F N - NPT F F - Flanged (Specify)

e.g. 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 :-

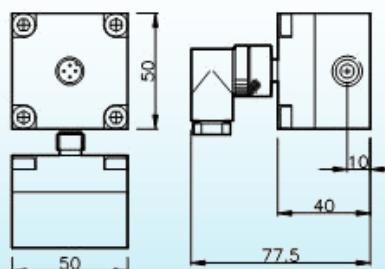
**OG1-SS5-VHQ-B**

Sample product codes →	Stainless standard OG1-SS5-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
Wetted mats - Body - Gears - Seal - Magnet	316 St St 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
Repeatability	± 0.1%	± 0.1%
Detector Type	Hall effect	Hall effect
Terminations	M12 instrument socket	M12 instrument socket
Approx 'K' factor - Pulses/Litre	2050	2050

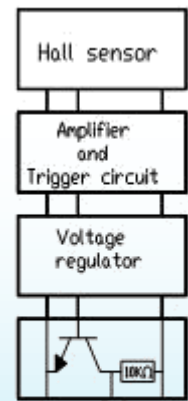
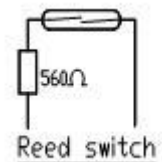
Weight in kg	
St St - 50 Bar	0.360
Peek™ - 10 Bar	0.184
St St - 400 Bar	3.000



316 St St body  
1/4" thread



PEEK™ body  
1/4" thread



Sensor block diagram