



# ALMG-PD

## Oval Gear Micro Flow PD Flowmeter

### Model ALPD Series

## GENERAL

SMARTMEASUREMENT's ALMGPD Micro-count oval gear flow meters offer precise measurement with guaranteed accuracy and repeatability. Manufactured from 316 grade stainless steel with optional aluminum models for non-aggressive liquids, these positive displacement low flow meters can measure liquids of varying viscosity and density with little or no effect on accuracy across a linear range.

A feature of the oval gear principle is its extremely low pressure loss and capacity to cope with pulsating flows. A high resolution calibrated pulse output requiring DC power can be supplied or a remote LCD rate counter with optional pulse and 4-20mA re-transmission is available to compliment the Micro-Flow PD meter..



## FEATURES

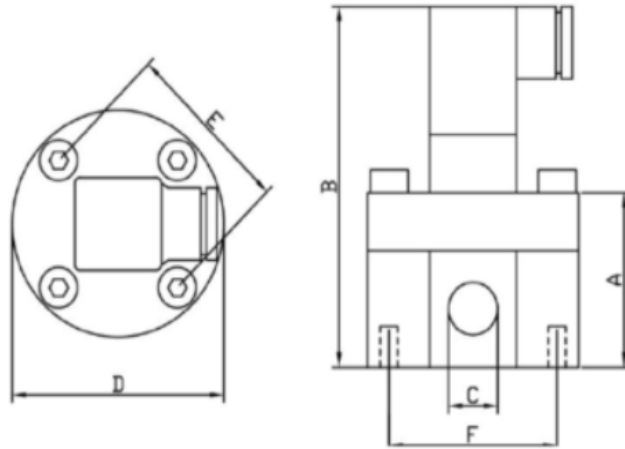
- Compact and lightweight, suitable for OEM use
- No flow conditioning/straight pipe required
- High accuracy and repeatability
- Low pressure drop across meter
- Measures low and high viscosity media
- Stainless steel or aluminum models
- Custom models for higher pressure



## SPECIFICATIONS

- |                        |  |                           |   |
|------------------------|--|---------------------------|---|
| • Measuring Principle: | Oval Gear Positive Displacement  | • Max $\Delta$ Pressure:: | Varies by model, consult factory              |
| • Materials:           | Body:- SS# 316 (Std.)<br>Aluminum (Optional)<br>Gears:- SS# 316 (Std.)<br>Aluminum (Optional)<br>Shafts:- SS# 316L<br>Seal:- Viton (Std.), PTFE, EPR,<br>Silicon, Buna | • Max viscosity:          | > 2300 SSU (500 cP)<br>@ 1.0 S.G. recommended |
| • Accuracy:            | $\pm 0.5\%$ of reading   | • Filtration:             | 200 mesh minimum<br>(upstream) Required       |
| • Repeatability:       | $\pm 0.5\%$ of reading   | • Temperature:            | -22~180°F, (-30~80°C)                         |
| • Ranges:              | See ordering guide (Page 2)  | • Power Supply:           | 4~26 V <sub>DC</sub>                          |
| • Ambient Temperature: | -4~+122 °F (-20~+50 °C)  | • Power Consumption:      | 50 mA maximum                                 |
| • Operating Pressure:  | 465 psig (32 barg max)-Std.<br>Up to 14,000/1000 bar<br>Higher Pressures-consult factory   | • Output Signal:          | Open collector square wave pulse              |
|                        |  | • Process Connections:    | 1/8"~1/2" BSP or NPTF                         |
|                        |  | • Electrical Connection:  | Hirschmann DIN                                |
|                        |  | • Dimensions:             | Varies by model, consult factory              |
|                        |  | • Weight:                 | Varies by model, consult factory              |

**DIMENSIONS**



-All dimensions in units of inches (mm)-

Dimensions	MODEL				
	ALMGPD-3, -5	ALMGPD-6	ALMGPD-9	ALMGPD-12	ALMGPD-24
A	1.38 (35)	1.48 (37.5)	1.57 (40)	1.83 (46.5)	2.20 (56)
B	2.68 (68)	2.72 (69)	2.83 (72)	3.19 (81)	3.58 (91)
C	½" NPT or BSP	½" NPT or BSP	¼" NPT or BSP	¼" NPT or BSP	½" NPT or BSP
D	1.54 (39)	1.93 (49)	1.93 (49)	2.52 (64)	3.50 (89)
E	M4 x 31 mm	M4 x 42 mm	M4 x 42 mm	M5 x 54 mm	M5 x 80 mm
F	M4 x 31 mm	M4 x 42 mm	M4 x 42 mm	M5 x 54 mm	M5 x 80 mm

<b>TYPE OF FLUID</b>
<b>LINE SIZE</b>
<b>PROCESS TEMPERATURE</b>
<b>PROCESS PRESSURE</b>
<b>ELECTRONIC OPTIONS</b>

Please provide the name of your fluid, including operating density and viscosity

Please specify the diameter size in unit of inches or mm

Please indicate the normal and maximum operating temperatures

Please indicate the normal and maximum operating pressure

Please note the desired output signal and available power

**ALMGPD**

EXAMPLE: ALMGPD-5-ST-1

ALMGPD	**	**	**	DESCRIPTION
¼", 0.5~400 mL/minute	3			Nominal Port Size & Flow Range
¼", 1~800 mL/minute	5			
¼", 5~1000 mL/minute	6			
¼", 0.5~100 L/hour	9			
¼", 6~600 L/hour	12			
½", 0.3~30 L/minute	24			
465 psig (32 barg)		ST		Pressure Rating
Up to 14,500 psi (1000 bar)- consult factory		HP		
BSPP Female			1	Options
NPTF Female			2	

