



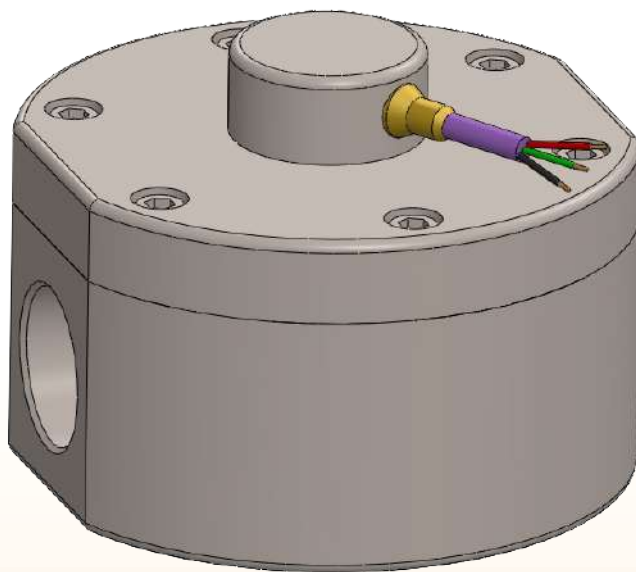
## OVAL GEAR FLOWMETER

Oval gear meters are traditional, mechanical, positive displacement (PD) flow meters, first invented more than 50 years ago by OVAL Corporation of Japan and now widely used for flow metering applications.

A very precisely adjusted gear pair within the casing forms the measuring element. The in flowing medium causes the gear pair to rotate. The rotary motion is scanned by contactless sensors. Since each individual tooth generates a pulse, this results in a very high resolution.

Consequently, even the smallest volumes can be measured or dosed precisely. The measurement unit contains two pick-offs that are circumferentially offset by  $\frac{1}{2}$  of a tooth pitch to generate a 2 channel flow-proportional frequency signal.

Suitable processing of the signal provides an greater resolution and the option to identify the flow direction. Basically, the measurement accuracy increases with increase in viscosity of the media.



### OVAL Gear Meter Advantages

- \* Traditional proven flow technology
- \* Simple to install
- \* No straight pipe runs required so flow meters can be installed in restricted areas

### OVAL Gear Meter Limitations

- \* Not suitable for steam or multi-phase fluids
- \* Fluid slippage adversely affects accuracy; this varies with flow rate, differential pressure, temperature, viscosity and clearance
- \* Not recommended for low-viscosity fluids, including water or water-like fluids (because of an increase in fluid slippage)
- \* Accuracy adversely affected by bubbles present in fluids.

### Specifications

TYPE	AIOG
INPUT POWER	5~24VDC
OUTPUT	NPN PULSE
MEDIA	DIESEL/OIL
ACCURACY	+/-0.5% OF READING
OPERATING RANGE	-20-80'C
MAX PRESSURE	50 BAR ALUMINUM BODY
	150 BAR S.S. BODY

### Flow Range

LINE	THREAD	FLOW
SIZE IN mm	SIZE IN BSP	RANGE IN LPH
3	1/4"	0.5 - 35
6	1/4"	5 - 150
9	3/8"	15 - 300
13	1/2"	100 - 1500
19	3/4"	200 - 2200
25	1"	500 - 4000
40	1 1/2"	1000 - 10000
50	2"	5000 - 20000
80	3"	10000 - 100000



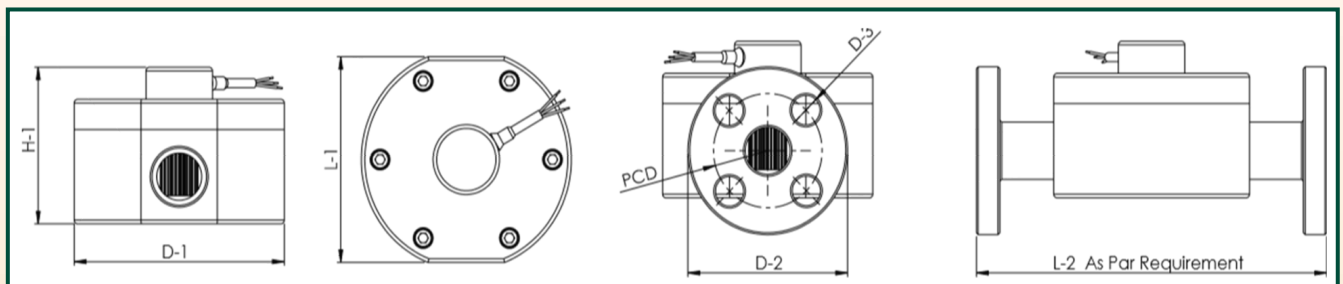


## ORDER CODE

AIOG										
Line size in mm	x	x	x							
Body MOC										
Aluminum				A	L					
S.S.304				S	4					
S.S.316				S	6					
GEARS MOC										
Aluminum					A	L				
S.S.304					S	4				
PLASTIC					P	L				
Connection										
Thread								T		
ANSI 150 class Flange								F		

## DIMENSIONS

PART NAME	H-1	D-1	L-1	Thread	Class 150 Flange	D-2	Hole	PCD
AIOG-03	57	63	59	1/4"BSP	1/2"	88.9	15.74X4	60.45
AIOG-06	57	63	59	1/4"BSP	1/2"	88.9	15.74X4	60.45
AIOG-08	60	67	61	3/8"BSP	1/2"	88.9	15.74X4	60.45
AIOG-12	66	86	81	1/2"BSP	1/2"	88.9	15.74X4	60.45
AIOG-20	73	97	91	3/4"BSP	3/4"	98.55	15.74X4	69.85
AIOG-25	83	117	109	1"BSP	1"	107.95	15.74X4	79.24
AIOG-40	103	195	183	1-1/2"BSP	1-1/2"	127	15.74X4	98.55
AIOG-50	128	195	183	2"BSP	2"	152.4	19.05X4	120.65
AIOG-80	159	240	220	3"BSP	3"	190.5	19.05X4	152.4



# ARANKA



CE -2209

ISO 9001:2015  
COMPANY



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