

OVAL GEAR FLOW METER GW



Features

- Oval gear flow meter is mainly used to measure high viscosity media
- Products are widely used in petroleum, petrochemical, natural gas, chemical, paper and other industries, for the measurement of small pipe diameter flow measurement
- High accuracy, long term performance retention and good repeatability
- The viscosity can be up to 200 cP
- Microprocessor type transmitter

Principle

The working principle of oval gear flowmeter is that liquid pushes a pair of oval gears to rotate. The volume of each cavity is a fixed volume; The speed of the gear is led out, the sensor sends out synchronous pulse counting, and the rotation of the oval gear is transmitted to the counter through the magnetic sealing coupling and the transmission reduction mechanism to directly indicate the total flow rate through the flowmeter.

Application



Food industry
Honey, Syrup, etc



Chemical industry
Glue, Paints, etc



Oil/Fuel industry
Raw palm oil, Diesel fuel, petroleum, etc

Technical Data

Flow Range : According to Flow rate and Pressure rating table

Accuracy : $\pm 0.5\%$ of reading

Repeatability : $\pm 0.03\%$

Range ratio : 1:10

Pipe Diameter : DN15...DN100

Process Connection : DIN flange, ANSI flange or JIS flange

Medium Temperature : $-20\text{...}+80^{\circ}\text{C}$, $-20\text{...}+180^{\circ}\text{C}$ (option)

Nominal Pressure : According to Flow rate and Pressure rating table

Max viscosity : 200 cP (mPa.s)

Output : Pulse, 4-20mA, RS-485 (*depend on code*)

Power Supply : 24 Vdc

Housing Material : Cast steel or Stainless steel 304

Gear material : Cast steel or Stainless steel 304

Flange material : Cast steel or Stainless steel 304

Cable gland : M20*1.5

Protection class : IP65

Approval : Ex dIIC T6 Gb (option)

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Flow rate and Pressure rating

Nominal Diameter		Flow range (m ³ /h)	Standard Pressure rating (MPa)	Option Pressure rating (Mpa)
mm.	in.			
15	1/2"	0.16 - 1.5	1.6	2.5, 4
20	3/4"	0.3 - 3	1.6	2.5, 4
25	1"	0.6 - 6	1.6	2.5, 4
40	1" 1/2	1.5 - 15	1.6	2.5, 4
50	2"	2.4 - 24	1.6	2.5, 4
80	3"	6 - 60	1.6	2.5, 4
100	4"	10 - 100	1.6	2.5, 4

**for other type of flange, please on ordering code table



Cast steel housing



Stainless steel 304 housing



**High temperature version
Stainless steel 304 housing**

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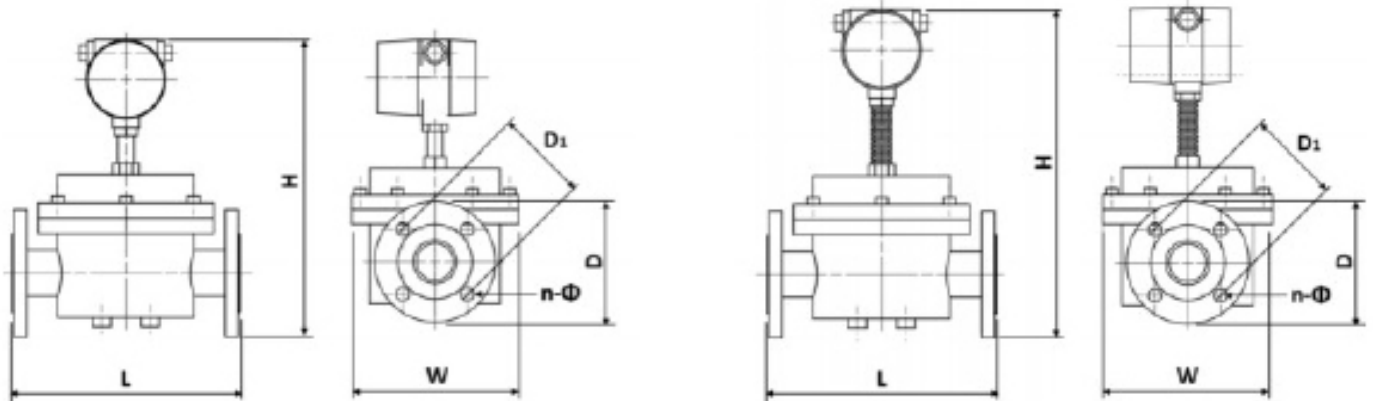
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Installation Dimension



Standard version

High temperature version

Standard version :

Nominal Diameter		L	H	W	D1	n	Φ
mm.	in.						
15	1/2"	200	300	120	65	4	14
20	3/4"	240	300	160	75	4	14
25	1"	260	300	190	85	4	14
40	1" 1/2	280	350	190	110	4	18
50	2"	300	380	230	125	4	18
80	3"	380	420	280	160	8	18
100	4"	500	500	410	180	8	18

High temperature version :

Nominal Diameter		L	H	W	D1	n	Φ
mm.	in.						
15	1/2"	200	350	120	65	4	14
20	3/4"	240	350	160	75	4	14
25	1"	260	350	190	85	4	14
40	1" 1/2	280	400	190	110	4	18
50	2"	300	420	230	125	4	18
80	3"	380	470	280	160	8	18
100	4"	500	550	410	180	8	18

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Ordering code

Example order : GW-x-x-x-x-x-x			
x : Pipe size			
DN15...DN100			
x : Display and Output Feature			
D : display + 4-20mA + pulse			
DI : display + 4-20mA + pulse + RS485			
x : Process Connection **			
F : DIN Flange PN16 (standard)			
FA150 : ANSI150 Flange			
FJ10 : JIS10K Flange			
<i>** other flanges are below</i>			
x : Body material			
- : Cast steel			
S04 : Stainless steel 304			
x : Process temperature			
- : -20...+80°C			
H : -20...+180°C			
x : explosion proof			
- : No explosion proof			
EX : Ex dIIC T6 Gb			

****Special Process Connection**

- FD25** : Flange DIN PN25 | **FD40** : Flange DIN PN40
FA300 : Flange ANSI 300 | **FA600** : Flange ANSI 600
FJ20 : Flange JIS 20K | **FJ30** : Flange JIS 30K

Example ordering : GW-50-D-F-S04-H

Description : Oval gear flow meter diameter 50, Housing SUS304, Output pulse, 4...20mA and pulse, Flange connection DIN PN16, temperature resistance -20...+180°C

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