

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

Technical Data

Measuring principle : Oval Gear

Flow Range : See the table (page 2)

Flow unit : L/min, L/h, m³/min, m³/h, t/min, t/h, kg/min, kg/h

Totalizer unit : L (Liter), m³ (cubic meter), t (ton), kg (kilogram)

Accuracy : ±0.5 % of reading

Repeatability : ±0.03 %

Range ratio : 1:10

Pipe Diameter : DN15...DN100

Process Connection : DIN flange, ANSI flange or JIS flange

Pressure resistance : 16 bar (standard)

Pressure resistance (option) : 25, 40...200 bar (depend on flanges)

Max viscosity of media : 200 cP (mPa.s)

Medium Temperature : -20...+80°C (standard), -20...+180°C (option)

Ambient Temperature : -10...+65°C

Relative Humidity : 5...90 %RH

Output : Pulse, 4-20mA (2 and 3 wire), RS-485

Power Supply : 24 Vdc

Housing Material : Cast steel (standard), Stainless steel 304 (option)

Gear material : Cast steel (standard), Stainless steel 304 (option)

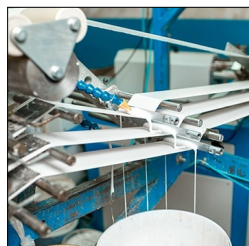
Flange material : Cast steel (standard), Stainless steel 304 (option)

Cable gland : M20 x 1.5

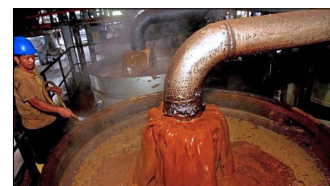
Protection class : IP65

Approval : Ex dIIC T6 Gb (option)

Application



Chemical industry
Glue, Paints, etc



Oil/Fuel industry
Raw palmoil, Diesel fuel,
petroleum, etc

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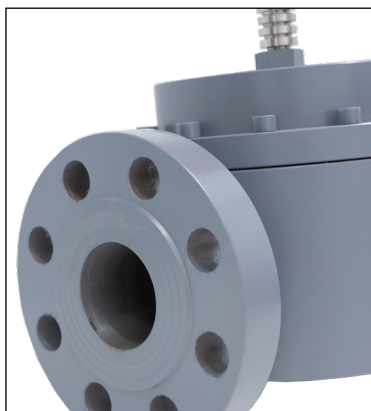
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Flow rate and Pressure rating

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
20	3/4"	0.3 - 3	1.6	2.5, 4, 20
25	1"	0.6 - 6	1.6	2.5, 4, 20
40	1" 1/2	1.5 - 15	1.6	2.5, 4, 20
50	2"	2.4 - 24	1.6	2.5, 4, 20
65 (Type 1)	2"1/2	3 - 30	1.6	2.5, 4, 20
65 (Type 2)	2"1/2	6 - 60	1.6	2.5, 4, 20
80	3"	6 - 60	1.6	2.5, 4, 20
100	4"	10 - 100	1.6	2.5, 4, 20

*for DN65 is special size that can have two measuring range

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



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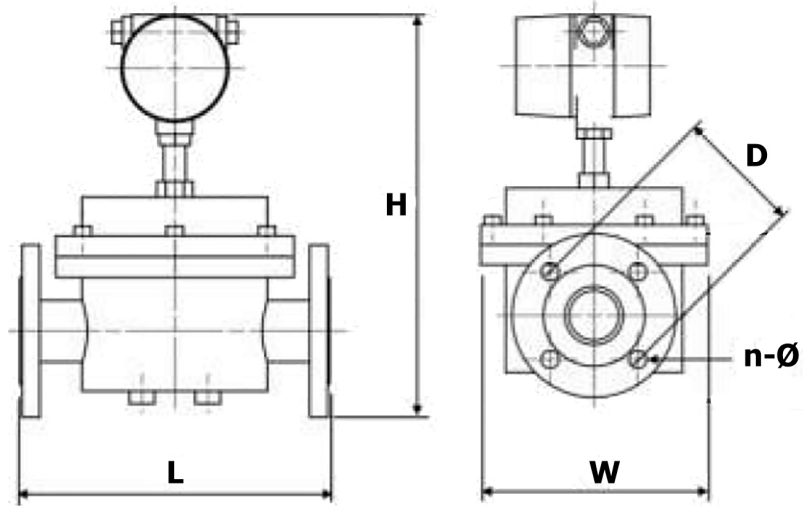
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Installation Dimension

Standard version :



Nominal Diameter		L	H	W	D	n - Ø
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
65 (Type 1)	2" 1/2	300	390	230	145	4 - 18
65 (Type 2)	2" 1/2	380	410	280	145	4 - 18
80	3"	380	420	280	160	8 - 18
100	4"	500	500	410	180	8 - 18

**For DN65, there is two dimensions. it depends on a measuring range. If user select the flow rate 3-30 m3/hr, the dimension is "Type 1". If user select the flow rate 6-60 m3/hr, the dimension is "Type 2".*



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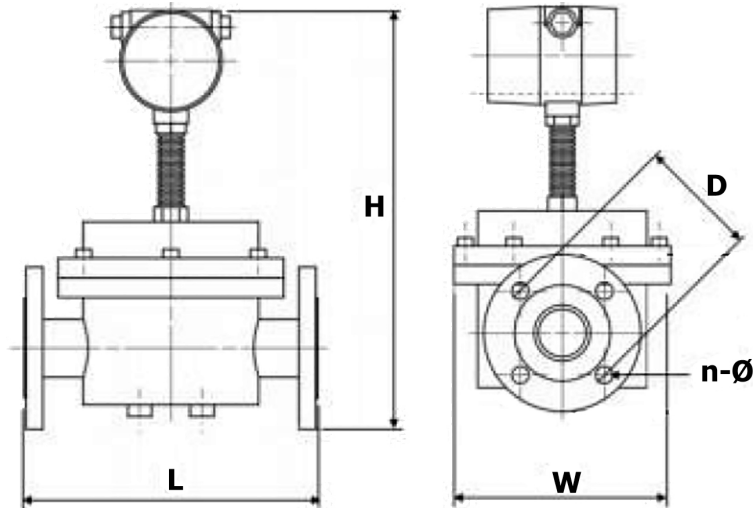
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Installation Dimension

High - temperature version :



Nominal Diameter		L	H	W	D	n - Ø
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
65 (Type 1)	2" 1/2	300	430	230	145	4 - 18
65 (Type 2)	2" 1/2	380	460	280	145	4 - 18
80	3"	380	470	280	160	8 - 18
100	4"	500	550	410	180	8 - 18

*For DN65, there is two dimensions. it depends on a measuring range. If user select the flow rate 3-30 m³/hr, the dimension is "Type 1". If user select the flow rate 6-60 m³/hr, the dimension is "Type 2".



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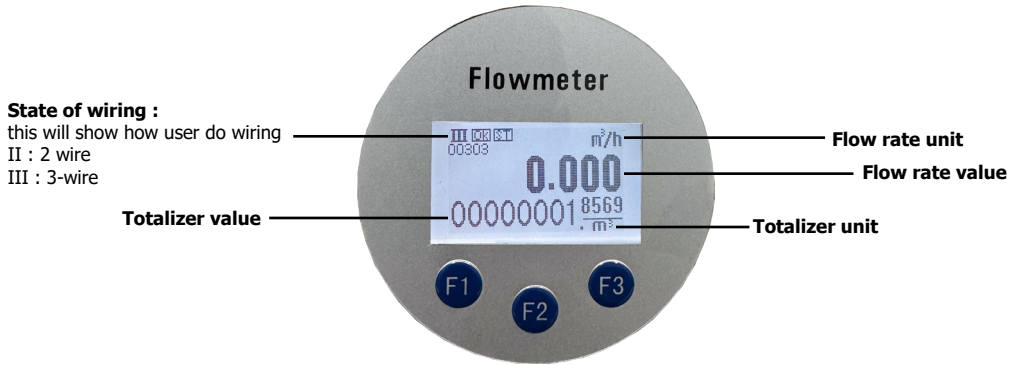
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Informations

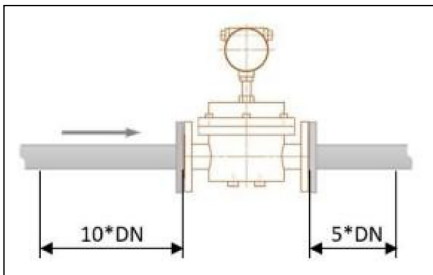
- Display indicator**



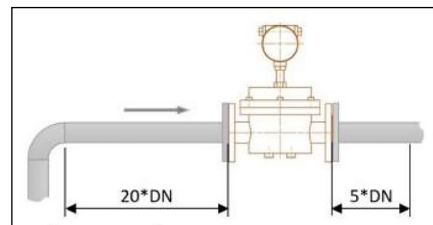
- Installation guide**

At all times, the pipe must be completely filled with liquid. Otherwise, the flow display will be affected, resulting in measurement error.

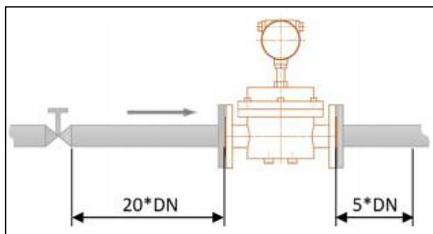
**note: Do not install a flow meter that the liquid go down inexpressively*



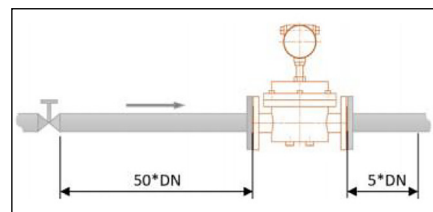
General pipe



90 deg bend



Open valve



Partially open the valve

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Ordering code

Example order : GW-x-x-x-x-x-x			
x : Pipe size			
DN15...DN100 (for DN65 only ; 65T1 : flow rate is 3-30 m3/hr , 65T2 : flow rate is 6-60 m3/hr)			
x : Display and Output Feature			
N : No display + pulse			
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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