

PRODUCT MANUAL

ELECTROMAGNETIC, VORTEX, ORIFICE

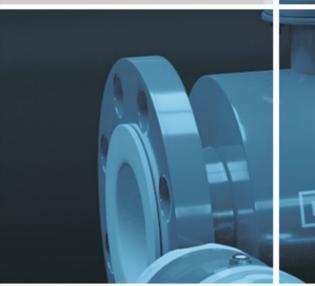






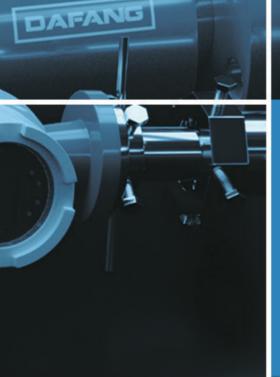
















WELCOME

Henan Dafang Dingsheng Flow Instrument Co.,Ltd. is specialized in manufacturing types of flowmeters, which includes electromagnetic flowmeters, vortex flowmeters, turbine flowmeters, throttling devices and liquid level gauge.

In this brochure, the company information, factory strength, and types of products will be presented in details.

Quality is our culture, your satisfaction is our goal!

ABOUT US





Henan Dafang Dingsheng Flow Instrument Co., Ltd is a professional company of automatic instrument production and supporting. The company integrates the R&D, design, production, manufacturing and sales services of industrial automatic instruments and related products.

The company covers an areas of more than 2000 square meters, with 100 employees, 15 core technical personnel and 20 foreign trade sales elite teams. We have the national leading production equipment. Our main products include electromagnetic flow meter, vortex flow meter, throttling device, turbine flow meter, ultrasonic flow meter and various flow supporting products. Our products have complete specifications and various forms, and can meet customers special customized needs.

After years of development, the flow meter products produced by our company enjoy very high market reputation in China, and has been supplying domestic foreign trade enterprises for export for many years.

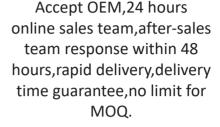
We started to set up our own international trade department in 2018 with complete product certificates and perfect sales team. Up to now, we have established long-term cooperative relations with many countries.





As one China gold supplier, the factory covers an area of more than 20000 m2, with 200 employees, 15 core technical personnel and 20 foreign trade sales elite teams.

99%





The company has a strict quality inspection department to control every detail of production, Provide customers with quality products.



The company has advanced CNC machining equipment and professional processes to ensure the quality and detail of the products. At the same time, we accept customization and can produce products according to customers' requirements.



Our professional enginner can guide you the Installation and commissioning work, quality warranty 12 months.



at least 30 countries.
The annual output value can reach 20 million, 50 customers have visited the factory. The favorable rate can reach 99%.

The company has exported to

CHINA PROFESSIONAL FLOWMETER MANUFACTURER

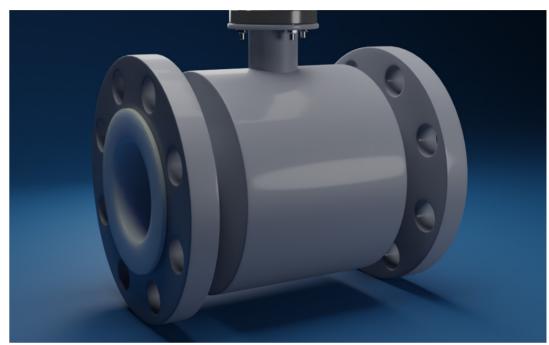






DFLD-YGD Electromagnetic Flowmeter

(Integrated Type)







DFLD-FGD Electromagnetic Flowmeter

(Remote Type)





CHINA PROFESSIONAL FLOWMETER MANUFACTURER

Features:

- The accuracy will be unaffected by the change of fluid density, viscosity, temperature, pressure and conductivity.
- There are no parts which will impede flow in the measurement tube, no pressure loss, and the need of straight section is lower.
- The converter use display, it is easy to read the data in the straight sun and dark room.
- Setting parameters through infrared thouch button, so we can set parameters safely without opening the cover of converter under harsh environment.
- The flowmeter has bidirectional measuring system and is installed with three integrators: forward total volume, reverse total volume and total difference; it can display forward flow and reverse flow volume in varied outputs: current, pulse, digital communication, HART;
- The converter has self-inspection and self-diagnosis function;
- The sensor of high pressure electromagnetic flow meter use PFA and net lining material, have the advantage s of high pressure resistance, anti-negative pressure. It specially used in petrochemical, mineral, etc. Explosion-proof type flow meter can used in corresponding explosion- proof area.

Measuring principle:

The measuring principle of electromagnetic flowmeter is based on the electromagnetic induction law of Farady. That is: Conductive liquid moves in the magnetic field as a cutting magnetic line, an induced electromotive force is generated in the conductor.

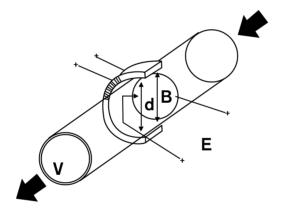
E=K*B*V*D

K: Instrument constant

B: Strength of magnetic induction

V: The average flow rate in the cross-section of measuring the tube

D: Inner diameter of measuring tube



When measuring flow, the fluid flows through a magnetic field that is perpendicular to the direction of flow. The flow of the conductive liquid induces a voltage signal that is proportional to the average flow rate. Its induced voltage signal is detected by two electrodes in direct contact with the liquid, and transmitted to the amplifier through the cable, then converted into a uniform current output signal.

Characteristics and scope of application:

The intelligent converter of Chinese and English display adopts 16-bit embedded microprocessor.

Full digital processing, with bidirectional flow measurement function, instantaneous flow, positive and reverse accumulations and difference calculations, used to measure volume flow in conducting media such as clear water, sewage, acid, alkali, salt solution or liquid-solid two-phase fluid.

Technical performance parameter:

| Main Power | AC220V 50HZ / DC24V | | | | |
|-----------------------------|------------------------------|---|--|--|--|
| Power Consumption | <15W (And set v | vith sensor supporting power consumption) | | | |
| Display And Push Buttons | total flow and p | nese display, it can display the instantaneous flow, ercentage of flow as well as alarm display, four thin, which is used to data set. | | | |
| Accumulator | Forward total qu | uantity, reverse total quantity | | | |
| | Analog output | Bi-direction with two ways, Isolation 0-10mA/4-20mA | | | |
| Output Signal | Analog output | Load resistor: 0-10mA; 0-1.5KΩ; 4-20mA; 0-750Ω | | | |
| | Frequency output | Forward & reverse flow output with frequency range set between 1-5000Hz. The external voltage must be lower than 35V and the max output and the max output current is 50mA when the transistor is turned on | | | |
| | Alarm output | Two outputs from the collectors of photoelectric isolate transistors are for alarm signals. The external voltage must be lower than 35V and the max output current is 250mA when the transistor is turned on. Alarm status: Activates when the measured pipes are empty, the excitation circuits are broken or the volume of flow rate exceeds the value designed limits. | | | |
| | Pulse output | For pulse output in forward and reverse flow measurement, upper frequency of pulse output can be up to 5000 CP/S relevant value of pulse is from 0.0001 to 1.0 M3/P. The width of pulse can be set to 20ms or squired wave from automatically. The collector of transistor with photoelectric is open circuited. The external voltage must be lower than 35 V and maximum output current is 250mA when the transistor is turned on. | | | |
| Accuracy | ±0.5% of the va | lue displayed, ±0.3% or ±0.2% is optional. | | | |
| Damping Time Constant | Continuous vari | able from 0-100 s (90%)can be selected by group | | | |
| Communication | RS232 ,RS485 o resistance | r HART Communication are optional, with lighting | | | |
| Power Failure | | clock is designed in the flow meter which can save the cords for 16 times (10 years) | | | |
| Protection Grade | IP65 | | | | |
| Ex-proof Mark | Exd [ia]ia Ⅱ cT5 | | | | |

| Nominal Diameter | DN6~DN3000mm | | | | | | |
|-----------------------------------|---|--------------------------------------|-------------------|--|--|--|--|
| Nominal Pressure | 0.6~4.0MPa | 0.6~4.0MPa | | | | | |
| Main Power | AC220V 50HZ / DC24V /3.6V | | | | | | |
| Accuracy | ±0.5%, ±0.3% or ±0.2% | is optional | | | | | |
| Output Signal | Analog output, Frequer | ncy output, Alarm out | out, Pulse output | | | | |
| Liner Material | Neoprene, Polyurethan | e, Polysilicone Rubbe | r, PTFE, F46, PFA | | | | |
| Electrode Type | General type, scraper t | ype and replaceable t | ype | | | | |
| Electrode Material | SUS316, Hastelloy B, Hairidium alloy, Stainless | • | | | | | |
| | Integrated type | -20°C~+70°C | | | | | |
| Medium Temperature | Remote type | Neoprene & Polyurethane Liner | -20°C~+60°C | | | | |
| | | PTFE Liner / PFA Liner /F46 Liner | -40°C~+180°C | | | | |
| Ambient Temperature | -25°C ~+ 60°C | | | | | | |
| Ambient Humidity | 5~100%RH(relative hur | midity) | | | | | |
| Medium Electrical Conductivity | ≥20us/cm | | | | | | |
| Measuring Range | 1500:1,flow rate<15m/s | | | | | | |
| Structure Type | Integral type, remote ty | pe, submersible type | , ex-proof type | | | | |
| Connection Type | Flange Type / Clamp Ty | /ре | | | | | |
| Protection Grade | IP65, IP67, IP68(options | IP65, IP67, IP68(optional) | | | | | |
| Ex-proof Mark | Exmd IICT4 | | | | | | |
| Product Standard | JB/T 9248-1999 Electro | magnetic Flowmeter | | | | | |

Technical performance parameter:

| Lining Materials | Main Features | Scope Of Application |
|---------------------|--|---|
| PTFE | 1.One of the most stable chemical properties in plastics. It is resistant to boiling hydrochloric acid, sulfuric acid and aqua regia, but also resistant to concentrated acids and various organic solvents. 2.Poor abrasion resistance | Applicable in mediums of strong corrosive, such as, concentrated acid alkali and so on. Temperature range: $-40^{\circ}\text{C} \sim +170^{\circ}\text{C}$ |
| F46 | It's corrosion resistance same as PTFE. low abrasion resistance. with strong anti-negative pressure ability. | The features of strong corrosive resistance same as PTFE can used to measure mediums with low abrasion Temperature range: $-40^{\circ}\text{C} \sim +160^{\circ}\text{C}$ |
| Polyurethane | Excellent abrasion resistance (Ten times equivalent to natural rubber). Poor in acid resistance and alkali resistance. Cannot be used with water mixed with organic solvents. | Those neutral medium with strong abrasion, like Slurry、coal slurry、mud, etc. Temperature range: $-20^\circ\text{C} \sim +60^\circ\text{C}$ |
| Polysilicone Rubber | Excellent elasticity, high tearing force, high pressure resistance. Can't resistant the corrosion of all acid, alkali,salt medium. | Water Temperature range: $-$ 20 $^{\circ}$ C \sim $+$ 180 $^{\circ}$ C |
| PFA | It's corrosion resistance same as PTFE, with strong anti-negative pressure ability. | It can used under negative pressure state Temperature range: $-40^{\circ}\mathrm{C} \sim + 160^{\circ}\mathrm{C}$ |
| Neoprene | Excellent elasticity, high tearing force, good abrasion resistance. Resistant to the general low concentrated acid, alkali,salt medium corrosion, can't resistant the corrosion of oxidizing media. | Water, sewage, weakly abrasive mud, pulp Temperature range: $-$ 20 $^{\circ}\mathrm{C}$ \sim + 60 $^{\circ}\mathrm{C}$ |

Corrosion resistance of electrode materials:

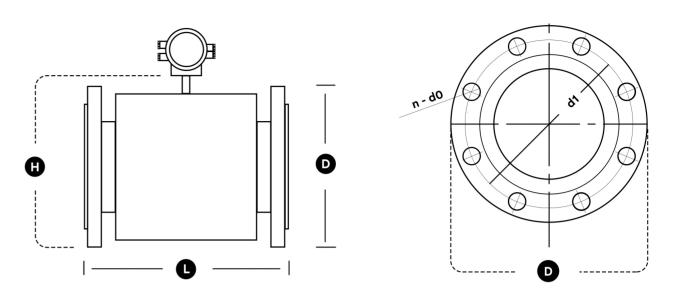
| Electrode Material | Corrosion Resistance |
|--------------------|---|
| SUS316 | For industrial water, domestic water, sewage, corrosive media, widely used in petroleum, chemical, steel, etc industrial sector and municipal, environmental protection field. |
| Hastelloy B(HB) | Hydrochloric acid of all concentrations below the boiling point has good corrosion resistance, and also resistance the corrosion of sulfuric acid, phosphoric acid, hydrofluoric acid, organic acids and other non-oxidizing acid, alkali, non-oxidizing salt solution. |

| Hastelloy C(HC) | Can resistance the corrosion of oxidative acid, such as nitric acid, mixed acid or chromic acid and sulfuric acid mixed medium, but also resistant to oxidizing salts such as Fe +++, Cu ++ or other oxidants such as hypochlorite solution above sea level, sea water corrosion |
|--|---|
| Titanium (Ti) | It can resistance the corrosion of seawater, various chlorides and hypochlorites, oxidative acids (including fuming sulfuric acid), organic acids, alkalis, etc, and is cannot resistance the corrosion of pure reducing acids (such as sulfuric acid and hydrochloric acid). However, if the acid contains oxidants (such as nitric acid, Fe +++, Cu ++), the corrosion is greatly reduced. |
| Tantalum (Ta) | Has excellent corrosion resistance, and similar with glass, in addition to hydrofluoric acid, fuming nitric acid, alkali, it can resistance the corrosion of almost all chemical media (including hydrochloric acid, nitric acid and sulfuric acid under 150°C and aqua regia). |
| Platinum-iridium | Almost applies to all chemicals, but not aqua regia and ammonium salts. |
| Stainless Steel Covered With Tungsten Carbide | Applicable in mediums of no corrosive and high abrasion. |

Shape and installation dimensions:

| Nominal Diameter | Naminal Proceura | | Outer Diameter | | | | |
|------------------|------------------|--|----------------|-----|------------|--|--|
| (mm) | (MPa) | Length of Flowmeter (Including Lining) | D | Н | Weight(kg) | | |
| 6 | | 200 | 90 | 220 | 6 | | |
| 10 | | 200 | 90 | 220 | 6 | | |
| 15 | | 200 | 95 | 220 | 8 | | |
| 20 | 4.0 | 200 | 105 | 220 | 10 | | |
| 25 | 4.0 | 200 | 115 | 223 | 12 | | |
| 32 | | 200 | 140 | 240 | 13 | | |
| 40 | | 200 | 150 | 250 | 14 | | |
| 50 | | 200 | 165 | 263 | 15 | | |
| 65 | | 250 | 185 | 283 | 18 | | |
| 80 | | 250 | 200 | 290 | 20 | | |
| 100 | | 250 | 235 | 318 | 25 | | |
| 125 | 1.6 | 250 | 270 | 350 | 28 | | |
| 150 | | 300 | 300 | 380 | 30 | | |
| 200 | | 350 | 340 | 430 | 50 | | |
| 250 | | 450 | 405 | 495 | 70 | | |
| 300 | | 500 | 460 | 547 | 95 | | |
| 350 | | 550 | 520 | 602 | 120 | | |
| 400 | 1.0 | 600 | 580 | 665 | 140 | | |
| 450 | | 600 | 640 | 720 | 160 | | |
| 500 | | 600 | 715 | 783 | 200 | | |
| 600 | | 600 | 840 | 897 | 280 | | |

Shape and installation dimensions:



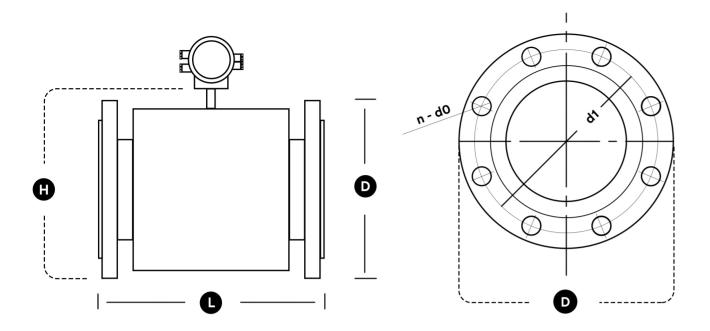
DN15~DN150, 1.6 & 4.0MPa Sensor and integrated outline drawing

Dimensions and weight

| DN | L | W | I | Reference (kg) | Weight |
|-----|-----|-----|-----|--------------------|--------|
| DIN | _ | VV | | Integrated Type | Sensor |
| 15 | 200 | 140 | 147 | 10 | 7 |
| 20 | 200 | 140 | 154 | 12 | 9 |
| 25 | 200 | 140 | 156 | 14 | 11 |
| 32 | 200 | 168 | 166 | 15 | 12 |
| 40 | 200 | 176 | 172 | 16 | 13 |
| 50 | 200 | 176 | 191 | 17 | 14 |
| 65 | 250 | 214 | 200 | 25 | 22 |
| 80 | 250 | 214 | 218 | 29 | 26 |
| 100 | 250 | 230 | 242 | 31 | 28 |
| 125 | 250 | 281 | 277 | 36 | 33 |
| 150 | 300 | 281 | 302 | 41 | 38 |

Flange size (GB / T9119)

| DN | Pr | Pressure 1.6 MPa | | | | | Pressure 4.0MPa | | | |
|-----|-----|------------------|----------------|---|----|-----|-----------------|----------------|---|----|
| DIN | D | d ₁ | d _o | n | b | D | d ₁ | d _o | n | b |
| 15 | 95 | 65 | 14 | 4 | 16 | 95 | 65 | 14 | 4 | 16 |
| 20 | 105 | 75 | 14 | 4 | 18 | 105 | 75 | 14 | 4 | 18 |
| 25 | 115 | 85 | 14 | 4 | 18 | 115 | 85 | 14 | 4 | 18 |
| 32 | 140 | 100 | 18 | 4 | 18 | 140 | 100 | 18 | 4 | 18 |
| 40 | 150 | 110 | 18 | 4 | 20 | 150 | 110 | 18 | 4 | 20 |
| 50 | 165 | 125 | 18 | 4 | 20 | 165 | 125 | 18 | 4 | 20 |
| 65 | 185 | 145 | 18 | 4 | 20 | 185 | 145 | 18 | 4 | 22 |
| 80 | 200 | 160 | 18 | 8 | 22 | 200 | 160 | 18 | 8 | 22 |
| 100 | 220 | 180 | 18 | 8 | 22 | 235 | 190 | 22 | 8 | 26 |
| 125 | 250 | 210 | 18 | 8 | 22 | 270 | 220 | 26 | 8 | 26 |
| 150 | 285 | 240 | 22 | 8 | 24 | 300 | 250 | 26 | 8 | 28 |



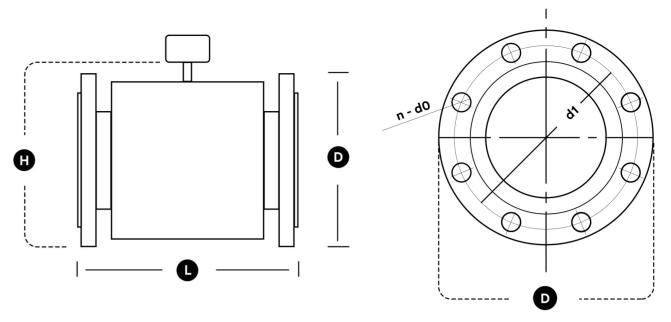
DN200~DN600, 1.0 & 1.6 MPa Sensor and integrated outline drawing

Dimensions and weight

| DN | L | Н ф ~ | Weight (kg) |
|-----|-----|-------|----------------|
| 200 | 350 | 362 | 45 |
| 250 | 450 | 412 | 50 |
| 300 | 500 | 472 | 60 |
| 350 | 500 | 522 | 145 |
| 400 | 500 | 572 | 180 |
| 450 | 550 | 626 | 215 |
| 500 | 550 | 676 | 245 |
| 600 | 600 | 776 | 335 |

Flange size (GB / T9119)

| DN | Pressure 1.0 MPa | | | | | Pressure 1.6 MPa | | | | |
|-----|------------------|----------------|----------------|----|----|------------------|----------------|----------------|----|----|
| DN | D | d ₁ | d _o | n | b | D | d ₁ | d _o | n | b |
| 200 | 340 | 295 | 22 | 12 | 26 | 340 | 295 | 22 | 8 | 24 |
| 250 | 405 | 355 | 26 | 12 | 28 | 395 | 350 | 22 | 12 | 26 |
| 300 | 460 | 410 | 26 | 12 | 32 | 445 | 400 | 22 | 12 | 28 |
| 350 | 520 | 470 | 26 | 16 | 35 | 505 | 460 | 22 | 16 | 30 |
| 400 | 580 | 525 | 30 | 16 | 38 | 565 | 515 | 26 | 16 | 32 |
| 450 | 640 | 585 | 30 | 20 | 42 | 615 | 565 | 26 | 20 | 35 |
| 500 | 715 | 650 | 33 | 20 | 46 | 670 | 620 | 26 | 20 | 38 |
| 600 | 840 | 770 | 36 | 20 | 52 | 780 | 725 | 30 | 20 | 42 |



DN700~DN3000, 0.6 & 1.0 MPa Sensor outline drawing

Note: 1. DN700~DN3000 without integrated type.

2. DN700 ~ DN1600 separated explosion-proof sensor has the same appearance as conventional instruments.

Dimensions and weight

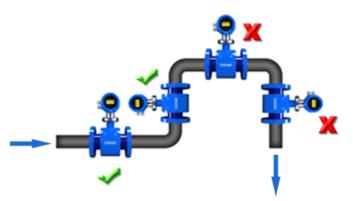
Flange size (GB / T9119)

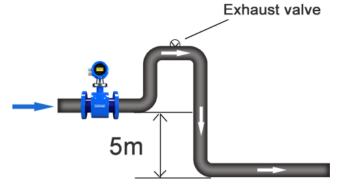
| DN | L | Н ф ~ | Weight (kg) |
|------|------|-------|----------------|
| 700 | 700 | 866 | 435 |
| 800 | 800 | 966 | 545 |
| 900 | 900 | 1076 | 655 |
| 1000 | 1000 | 1200 | 810 |
| 1200 | 1200 | 1406 | 875 |
| 1400 | 1400 | 1632 | 1235 |
| 1600 | 1600 | 1832 | 1555 |
| 1800 | 1800 | 2036 | 2085 |
| 2000 | 2000 | 2236 | 2610 |
| 2200 | 2200 | 2436 | 3210 |
| 2400 | 2400 | 2636 | 3910 |
| 2600 | 2600 | 2836 | 4280 |
| 2800 | 2800 | 3036 | 5000 |
| 3000 | 3000 | 3236 | 5600 |

| DN | Pressure (MPa) | D | d ₁ | d _o | n | b |
|------|----------------|------|----------------|----------------|----|----|
| 700 | (ivii u) | 895 | 840 | 30 | 24 | 30 |
| 800 | 1.0 | 1015 | 950 | 33 | 24 | 32 |
| 900 | 1.0 | 1115 | 1050 | 33 | 28 | 34 |
| 1000 | | 1230 | 1160 | 36 | 28 | 34 |
| 700 | | 860 | 810 | 26 | 24 | 26 |
| 800 | | 975 | 920 | 30 | 24 | 26 |
| 900 | | 1075 | 1020 | 30 | 24 | 26 |
| 1000 | | 1175 | 1120 | 30 | 28 | 26 |
| 1200 | | 1405 | 1340 | 33 | 32 | 28 |
| 1400 | | 1630 | 1560 | 36 | 36 | 32 |
| 1600 | 0.6 | 1830 | 1760 | 36 | 40 | 34 |
| 1800 | 0.6 | 2045 | 1970 | 39 | 44 | 36 |
| 2000 | | 2265 | 2180 | 42 | 48 | 38 |
| 2200 | | 2475 | 2390 | 42 | 52 | 42 |
| 2400 | | 2685 | 2600 | 42 | 56 | 44 |
| 2600 | | 2905 | 2810 | 48 | 60 | 46 |
| 2800 | | 3115 | 3020 | 48 | 64 | 48 |
| 3000 | | 3315 | 3220 | 48 | 68 | 50 |

| Flow-Velocity Table | | | | | | | |
|-------------------------------|--------------------|------------|------------|------------|------------|------------|-----------------|
| Flow Rate m/s Flow m³/h DN mm | 0.01 (Minimum) | 1 | 2 | 3 | 4 | 5 | 15 (Maximum) |
| 10 | 0.0085 | 0.2826 | 0.5652 | 0.8478 | 1.1304 | 1.4130 | 4.2390 |
| 15 | 0.0064 | 0.6362 | 1.2723 | 1.9085 | 2.5447 | 3.1809 | 9.5426 |
| 20 | 0.0113 | 1.1310 | 2.2619 | 3.3929 | 4.5239 | 5.6549 | 16.9646 |
| 25 | 0.0177 | 1.7671 | 3.5343 | 5.3014 | 7.0686 | 8.8357 | 26.5072 |
| 40 | 0.0452 | 4.5239 | 9.0478 | 13.5717 | 18.0956 | 22.6195 | 67.8584 |
| 50 | 0.0707 | 7.0686 | 14.1372 | 21.2058 | 28.2743 | 35.3429 | 106.0288 |
| 65 | 0.1195 | 11.9459 | 23.8918 | 35.8377 | 47.7836 | 59.7295 | 179.1886 |
| 80 | 0.1810 | 18.0956 | 36.1911 | 54.2867 | 72.3823 | 90.4779 | 271.4336 |
| 100 | 0.2827 | 28.2743 | 56.5487 | 84.8230 | 113.0973 | 141.3717 | 424.1150 |
| 150 | 0.6362 | 63.6173 | 127.2345 | 190.8518 | 254.4690 | 318.0863 | 954.2588 |
| 200 | 1.1310 | 113.0973 | 226.1947 | 339.2920 | 452.3893 | 565.4867 | 1696.4600 |
| 250 | 1.7671 | 176.7146 | 363.4292 | 530.1438 | 706.8583 | 883.5729 | 2650.7188 |
| 300 | 2.5447 | 254.4690 | 508.9380 | 763.4070 | 1017.8760 | 1272.3450 | 3817.0351 |
| 350 | 3.4636 | 346.3606 | 692.7212 | 1039.0818 | 1385.4424 | 1731.8030 | 5195.4089 |
| 400 | 4.5239 | 452.3893 | 904.7787 | 1357.1680 | 1809.5574 | 2261.9467 | 6785.8401 |
| 450 | 5.7256 | 572.5553 | 1145.1105 | 1717.6658 | 2290.2210 | 2862.7763 | 8588.3289 |
| 500 | 7.0686 | 706.8583 | 1413.7167 | 2120.5750 | 2827.4334 | 3534.2917 | 10602.8752 |
| 600 | 10.1788 | 1017.8760 | 2035.7520 | 3053.6281 | 4071.5041 | 5089.3801 | 15268.1403 |
| 700 | 13.8544 | 1385.4424 | 2770.8847 | 4156.3271 | 5541.7694 | 6927.2118 | 20781.6354 |
| 800 | 18.0956 | 1809.5574 | 3619.1147 | 5428.6721 | 7238.2295 | 9047.7868 | 27143.3605 |
| 900 | 22.9022 | 2290.2210 | 4580.4421 | 6870.6631 | 9160.8842 | 11451.1052 | 34353.3157 |
| 1000 | 28.2743 | 2827.4334 | 5654.8668 | 8482.3002 | 11309.7336 | 14137.1669 | 42411.5008 |
| 1200 | 40.7150 | 4071.5041 | 8143.0082 | 12214.5122 | 16286.0163 | 20357.5204 | 61072.5612 |
| 1400 | 55.4177 | 5541.7694 | 11083.5389 | 16625.3083 | 22167.0778 | 27708.8472 | 83126.5416 |
| 1600 | 72.3823 | 7238.2295 | 14476.4589 | 21714.6884 | 28952.9179 | 36191.1474 | 108573.4421 |
| 1800 | 91.6088 | 9160.8842 | 18321.7684 | 27482.6525 | 36643.5367 | 45804.4209 | 137413.2627 |
| 2000 | 113.0973 | 11309.7336 | 22619.4671 | 33929.2007 | 45238.9342 | 56548.6678 | 169646.0033 |
| 2200 | 136.8478 | 13684.7776 | 27369.5552 | 41054.3328 | 54739.1104 | 68423.8880 | 205217.6640 |
| 2400 | 162.8602 | 16286.0163 | 32572.0326 | 48858.0490 | 65144.0653 | 81430.0816 | 244290.2448 |
| 2600 | 191.1343 | 19113.4268 | 38226.8536 | 57340.2804 | 76453.7072 | 95567.1340 | 286701.4020 |

+ INSTALLATION +





The flow meter should be installed at a lower level and vertically upwards of the horizontal pipe. Avoid installation at the highest and vertically downwards point of the pipe .

If the pipe drop exceeds 5m, install an exhaust valve downstream of the sensor.





Installed at the lowest point when used in open drain pipe

Need 10D of upstreat and 5D of downsteat





outlet of the pump and should be installed at the of the pipe. outlet of the pump.

The sensor must not be installed at the inlet and
The flow meter should be installed on the rise

DFLD-YWS / DFLD-FWS

Sanitary Electromagnetic Flowmeter







Sanitary / Hygienic electromagnetic flowmeter description:

The hygienic electromagnetic flowmeter is an induction instrument to measure the volume flow of conductive medium in the tube with the shell of *304 stainless steel*.

The electromagnetic flowmeter is not easy to be polluted during use, and can effectively prevent the accumulation of measurement fluid residues in the measuring tube, and can be widely used in mineral water, soy sauce, jam, beer, fruit juice, rice wine, milk and other food production and manufacturing process.

Advantages of sanitary electromagnetic flowmeter:

- Using a quick connection solution, Easy to install, disassemble, clean and maintain;
- Unobstructed flow componets inside the pipe, can prevent the accumulation of measured fluid residues effectively.
- Not affected by the temperature, viscosity, density, and conductivity of the medium in a certain range;
- Wide range; No mechanical inertia reaction, responsive;
- It can meet the demand of different caliber in different fields.



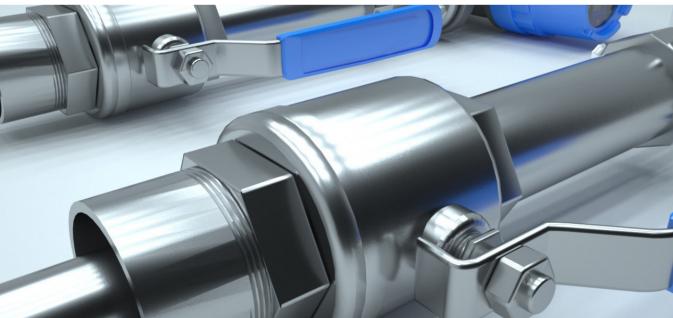
| Nominal Diameter | DN10 ~ DN200mm | |
|--|--|--|
| Nominal Pressure | 0.6 ~ 1.6MPa | |
| Accuracy Indication ±0.5%, ±0.3% or ±0.2% of the optional indication | | |
| | Integrated type (DFLD-YWS): -10 $^{\circ}$ C $^{\sim}$ +80 $^{\circ}$ C | |
| Medium Temperature | Split type (DFLD-FWS): -10 °C ~ +160 °C | |
| Electrode Material | SUS316, Hastelloy B(HB), Hastelloy C(HC), Titanium alloy(Ti), Tantalum alloy(Ta), Platinum-iridium | |
| Protection Grade IP65, IP68 can be optional | | |

CHINA PROFESSIONAL FLOWMETER MANUFACTURER

DFLD-YGD / DFLD - FGD

Insertion Electromagnetic Flowmeter





Insertion electromagnetic flowmeter description:

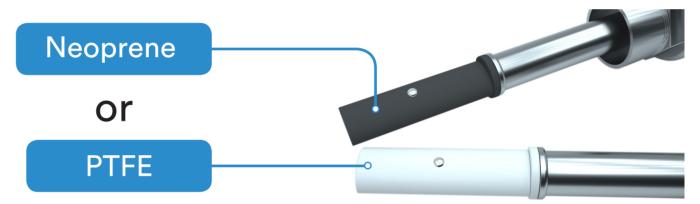
Insertion electromagnetic flow meter is a new type of flow meter developed on the basis of pipeline electromagnetic flow meter. The whole body is made of stainless steel.

According to the NIKURADS principle, it makes the pipe installation easier and reduces the cost consumption.

It can be installed on cast iron pipe and cement pipe without stopping water.

Advantages of Insertion electromagnetic flowmeter:

- The installation is simple, can be opened with the pressure, has the absolute installation advantage and the price advantage.
- It is suitable for the detection of liquid flow with conductivity above 20cm. The change of conductivity does not affect the change of performance.
- The movable parts of the flowmeter are easy to install, the converter and sensor are interchangeable, freely changing the measuring range.
- The flow detection is only related to the depth of insertion. It is very versatile and can be connected with any standard secondary instrument.
- 4~20mA output, Pulse output, RS485, HART, MODBUS.



| | Nominal Diameter | DN200mm~DN3000mm | | |
|--------------|------------------------|--|--|--|
| Accuracy | | 0.5~10m/s: 1.5% FS; 0.1~0.5m/s: 2.0% FS 0.1~10m/s: 2.5% FS (FS refer to 40%-100% full scale flow) | | |
| Flow Range | | 0.1~10m/s | | |
| | Pressure Resistance | 1.6Mpa | | |
| | | IP65 (DFLD-YGD) | | |
| Protection G | Protection Grade | IP68 (DFLD-FGD) | | |
| | Electrode Material | SUS316, Hastelloy B(HB), Hastelloy C(HC), Titanium alloy(Ti), Tantalum alloy(Ta), Platinum-iridium | | |

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Vortex Flowmeter

Vortex flowmeter is a new type of flowmeter with advanced international level based on Carmen vortex principle. It is suitable for measuring superheated steam, saturated steam, general gas and liquid.

Features

- Simple structure, no moving parts wear;
- High accuracy and good reliability, don't need on-site debugging;
- Can be long-distance transmission of flow signals, and computer networking, centralized management;
- Unique design of the amplification board, gas or liquid can be used.



Technical Parameters:

| Measured Medium | Gas, Steam |
|---------------------------|---|
| Medium Temp. | -20~+320 ℃ |
| Nominal Pressure | 1.6MPa;2.5MPa;4.0MPa;(Other pressure can be customized) |
| Accuracy | ±1.0%,±1.5% |
| Measuring Range Ratio | 1:8-1:30(Standard air condition as reference) |
| ivieasuiliig Kaiige Katio | 1:8-1:40(Normal Temperature as reference) |
| Flow Range | Gas:4.0-60.0m/s; Steam:5.0-70.0m/s |
| Diameter(mm) | DN15~DN1000 |
| Material | Stainless steel 304 |
| Resistance Coefficient | Cd≤2.4 |
| Explosion-proof Grade | la II CT6 |
| Power Supply | 12-24V/DC or 3.6V battery powered |
| Signal Output | Pulse frequency signal2-3000Hz,Low level≤1V,high level≥6V |
| Signal Output | Two-wire system 4-20 signal(isolated output),Load≤500 |

Flow-Velocity Table:

| Instrument | Liq | uid | Gas | | |
|-----------------|--------------------------|-------------------------------|--------------------------|-------------------------------|--|
| Caliber (mm) | Measuring Range(m³/h) | Output Frequency Range(Hz) | Measuring Range(m³/h) | Output Frequency Range(Hz) | |
| 20 | 1 ~ 10 | 40 ~ 396 | 5.5 ~ 50 | 218 ~ 1982 | |
| 25 | 1.6 ~ 16 | 32 ~ 325 | 8.5 ~ 70 | 172 ~ 1420 | |
| 40 | 2.5 ~ 25 | 13 ~ 130 | 22 ~ 220 | 115 ~ 1147 | |
| 50 | 3.5 ~ 35 | 9 ~ 93 | 36 ~ 320 | 96 ~ 854 | |
| 65 | 6.5 ~ 68 | 8 ~ 82 | 50 ~ 480 | 61 ~ 583 | |
| 80 | 10 ~ 100 | 6 ~ 65 | 70 ~ 640 | 45 ~ 417 | |
| 100 | 15 ~ 150 | 5 ~ 50 | 130 ~ 1100 | 43 ~ 367 | |
| 125 | 27 ~ 275 | 5 ~ 47 | 200 ~ 1700 | 33 ~ 290 | |
| 150 | 40 ~ 400 | 4 ~ 40 | 280 ~ 2240 | 27 ~ 221 | |
| 200 | 80 ~ 800 | 3 ~ 33 | 580 ~ 4960 | 24 ~ 207 | |
| 250 | 120 ~ 1200 | 3 ~ 26 | 970 ~ 8000 | 20 ~ 171 | |
| 300 | 180 ~ 1800 | 2 ~ 22 | 1380 ~ 11000 | 17 ~ 136 | |
| (400) | 180 ~ 3000 | 5.6 ~ 87 | 2750 ~ 27000 | 85 ~ 880 | |
| (500) | 300 ~ 4500 | 5.6 ~ 88 | 4300 ~ 43000 | 85 ~ 880 | |
| (600) | 450 ~ 6500 | 5.7 ~ 89 | 6100 ~ 61000 | 85 ~ 880 | |
| (800) | 750 ~ 10000 | 5.7 ~ 88 | 11000 ~ 110000 | 85 ~ 880 | |
| (1000) | 1200 ~ 1700 | 5.8 ~ 88 | 17000 ~ 170000 | 85 ~ 880 | |

Orifice Plate Flowmeter

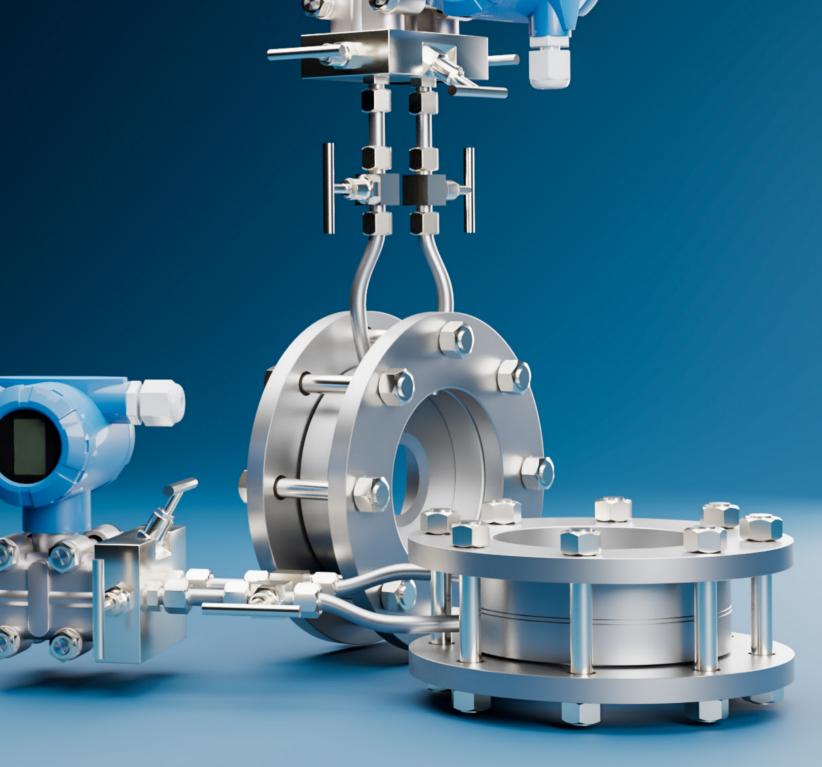
Orifice plate flowmeter is the simplest and most adaptable product in the throttling device. Its design, manufacture and use are in accordance with the international standard ISO5167 or the national standard GB/T2624.

Features

- Simple and firm structure, convenient installation, reliable operation.
- Can measure all kinds of flow of gas ,steam and liquid,wide application.
- Don't need real flow calibration ,with moderate precision.
- Stable performance, easy to adjust, basically do not need to adjust the zero point during use.

Technical Parameters

| Diameter(mm) | DN50~1000 |
|------------------|---|
| | Angle Pressure(Ring chamber or drilling separately); Flange Pressure; Radial pressure. |
| Nominal Pressure | ≤40Mpa,(when ≥20Mpa ,it can use high pressure lens orifice plate or welding type) |
| Accuracy | ±0.5% ~ ±1.5% |







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