

ELECTROMAGNETIC FLOW METER

DHR

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APPLICATIONS

- **Suitable for conductive liquid.**
- **Widely used in industries such as petroleum, chemical engineering, iron and steel, food, power, paper making, water treatment, petrochemical, medicine, etc..**



PRODUCT FEATURES

1. LCD Display

■ LCD backlight makes it easy to read day and night

Optional Flow Units

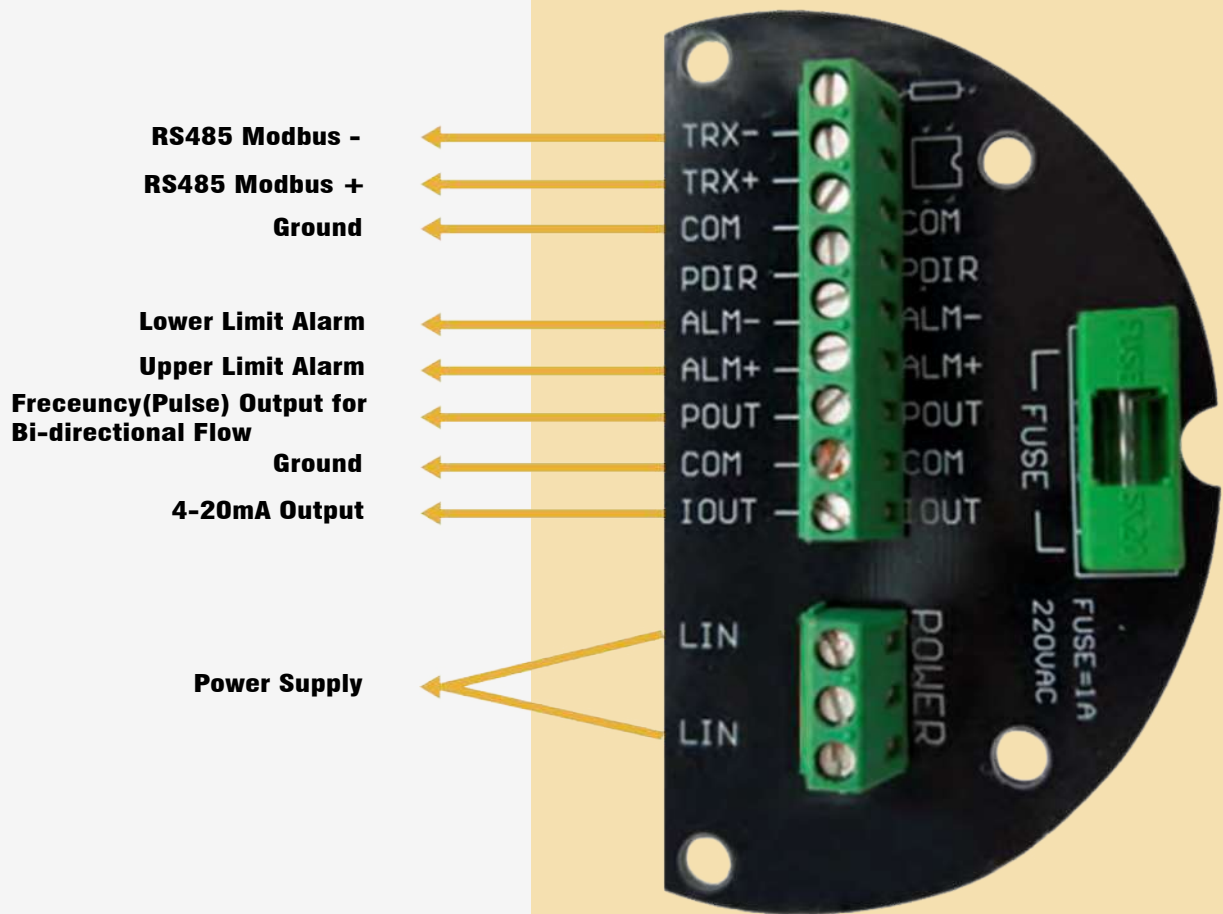


Instantaneous flow

Flow unit

- **Flow Velocity (FLS)**
- **Flow Percentage (FQS)**
- **Ratio of Emptiness (MTP)**
- **Forward and Reverse Integrated Volumes**
- **Forward/Reverse Flow Difference**
- **Alarm**

2. Multi-Language, Module Design, Multifunctional Output



3. Bi-directional measurement, easy to install

Automatic alarm functions for self-diagnosis



4. Optional Functions



WHY CHOOSE US?

Refined Material & Accurate Measurement

COPPER COIL

- 99.999% Pure copper
- Self adhesive smooth wire, stable signal
- Advanced wire-winding technology no zero point drift.



VS

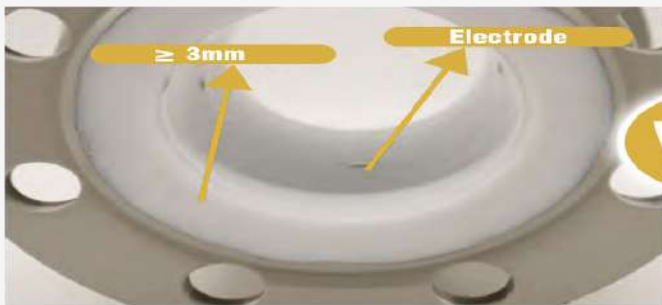
OTHER COILS

- Other supplier's coils are aluminum
- Unstable signal and prone to zero point drift



LINING

- $\geq 3\text{mm}$ thickness PTFE liner, durable service life.
- Anti-falling, negative pressure resistance, safe and reliable



VS

OTHER LININGS

- Other's thickness less than 3 mm, easily wear out



WELDING

- Fish-scale welding, stable & reliable
- 10mm thickness inner flanges
- Integrated casting, attractive surface



VS

OTHER WELDINGS

- Rough and uneven welding
- 3mm thickness inner flanges



ENVIRONMENTAL TEST

High & Low temperature test, different humidity test, to make sure instruments can resist any harsh environments



CALIBRATIONS

▶ **Coriolis Mass Flowmeter
Standard Meter**



**DN15-50 Gravimetric & Standard Liquid Flow Meter's
Calibration Device**

▶ **Coriolis Mass Flowmeter
Standard Meter**



**DN65-DN300 Gravimetric & Standard Liquid Flow Meter's
Calibration Device**



**DN350-DN700 & DN65-DN300 0.1%
Weighting and volumetric device to ensure an accurate calibration**



DN800-DN3000 Liquid Flow Meter's Calibration Device

PRODUCT PARAMETER

• Main Performances Parameters

| | |
|----------------------------|---|
| Size | DN3-DN3000mm |
| Nominal Pressure | 0.6-1.6Mpa (2.5Mpa/ 4.0 MPa/6.4Mpa...Max 42Mpa) |
| Accuracy | +/-0.5% (Standard) +/-0.3% or +/-0.2%(Optional) |
| Liner | PTFE, Neoprene, Hard Rubber, EPDM, FEP, Polyurethane, PFA |
| Electrode | SUS316L, Hastelloy B, Hastelloy C Titanium, Tantalum, Platinum-iridium |
| Structure Type | Integral type, Remote type, Submersible type, Ex-proof type |
| Medium Temperature | -20~ + 60 degC (Integral type) Remote type(Neoprene, Hard Rubber, Polyurethane, EPDM)-10~ + 80degC Remote type(PTFE/PFA/FEP) -10~ + 160degC |
| Ambient Temperature | -20~ + 60degC |
| Ambient Humidity | 5-100%RH(relative humidity) |
| Measuring Range | Max 15m/s |
| Conductivity | > 5us/cm |
| Protection Class | IP65(Standard); IP68(Optional for remote type) |
| Process Connection | Flange (Standard), Wafer, Thread, Tri-clamp, etc (Optional) |
| Output Signal | 4-20mA/Pulse |
| Communication | RS485(Standard), HART(Optional), GPRS/GSM (Optional) |
| Power Supply | AC220V (can be used for AC85-250V) DC24V (can be used for DC20-36V) DC12V (Optional), Battery Powered 3.6V(Optional) |
| Power Consumption | <20W |
| Alarm | Upper Limit Alarm / Lower Limit Alarm |
| Self-diagnosis | Empty Pipe Alarm, Exciting Alarm |
| Explosion Proof | ATEX |

• Main Performances Of The Electrode Materials

| Electrode Material | Application. |
|---------------------------|---|
| SUS316L | Applicable to industrial/municipal water, wastewater and low corrosive mediums. Widely used in petroleum industries, chemical industries. |
| Hastelloy B | Strong resistance to hydrochloric acids below the boiling point. Resistance against oxidable acids, alkali and non-oxidable salts. For instance, vitriol, phosphate, hydrofluoric acids and organic acids. |
| Hastelloy C | Exceptional resistance to strong solutions of oxidizing salts and acids. For example, Fe + + +, Cu + +, Nitric acids, mixed acids. |
| Titanium | Titanium can withstand corrosive mediums such as seawater, chloride salt solutions, hypochlorite salts, oxidable acids(including fuming nitric acids), organic acids and alkali. Not resistant to high purity reducin acids such as sulphuric acids, hydrochloric acids. |
| Tantalum | Highly resistant to corrosive mediums. Applicable to all chemical mediums except Hydrofluoric acids, Oleum and Alkali. |
| Platinum-iridium | Applicable to all chemical mediums except for Ammonium salts and Fortis. |

• Velocity-Flow Range Table

| Size | Flow Range & Velocity Table | | | | | | | |
|------|-----------------------------|--------|--------|--------|--------|---------|--------|--------|
| (mm) | 0.1m/s | 0.2m/s | 0.5m/s | 1m/s | 4m/s | 10m/s | 12m/s | 15m/s |
| 3 | 0.003 | 0.005 | 0.013 | 0.025 | 0.102 | 0.254 | 0.305 | 0.382 |
| 6 | 0.01 | 0.020 | 0.051 | 0.102 | 0.407 | 1.017 | 1.221 | 1.526 |
| 10 | 0.028 | 0.057 | 0.141 | 0.283 | 1.130 | 2.826 | 3.391 | 4.239 |
| 15 | 0.064 | 0.127 | 0.318 | 0.636 | 2.543 | 6.359 | 7.630 | 9.539 |
| 20 | 0.113 | 0.226 | 0.565 | 1.130 | 4.522 | 11.304 | 13.56 | 16.956 |
| 25 | 0.177 | 0.353 | 0.883 | 1.766 | 7.065 | 17.663 | 21.2 | 26.494 |
| 32 | 0.289 | 0.579 | 1.447 | 2.894 | 11.575 | 28.938 | 34.73 | 43.407 |
| 40 | 0.452 | 0.904 | 2.261 | 4.522 | 18.086 | 72.35 | 180.86 | 217.0 |
| 50 | 0.707 | 1.413 | 3.533 | 7.065 | 28.260 | 70.650 | 84.78 | 105.98 |
| 65 | 1.19 | 2.39 | 5.97 | 11.94 | 47.76 | 119.40 | 143.3 | 179.10 |
| 80 | 1.81 | 3.62 | 9.04 | 18.09 | 72.35 | 180.86 | 217.0 | 271.30 |
| 100 | 2.83 | 5.65 | 14.13 | 28.26 | 113.04 | 282.60 | 339.1 | 423.90 |
| 125 | 4.42 | 8.83 | 22.08 | 44.16 | 176.63 | 441.56 | 529.9 | 662.43 |
| 150 | 6.36 | 12.72 | 31.79 | 63.59 | 254.34 | 635.85 | 763.0 | 953.78 |
| 200 | 11.3 | 22.61 | 56.52 | 113.04 | 452.16 | 1130.40 | 1356 | 1696 |
| 250 | 17.66 | 35.33 | 88.31 | 176.53 | 706.50 | 1766.25 | 2120 | 2649 |
| 300 | 25.43 | 50.87 | 127.2 | 254.34 | 1017 | 2543.40 | 3052 | 3815 |
| 350 | 34.62 | 69.24 | 173.1 | 346.19 | 1385 | 3461.85 | 4154 | 5193 |
| 400 | 45 | 90 | 226.1 | 452 | 1809 | 4522 | 5426 | 6782 |
| 450 | 57 | 114 | 286.1 | 572 | 2289 | 5723 | 6867 | 8584 |
| 500 | 71 | 141 | 353.3 | 707 | 2826 | 7065 | 8478 | 10598 |
| 600 | 102 | 203 | 508.7 | 1017 | 4069 | 10174 | 12208 | 15260 |
| 700 | 138 | 277 | 692.4 | 1385 | 5539 | 13847 | 16617 | 20771 |
| 800 | 181 | 362 | 904.3 | 1809 | 7235 | 18086 | 21704 | 27130 |
| 900 | 229 | 458 | 1145 | 2289 | 9156 | 22891 | 27469 | 34336 |
| 1000 | 283 | 565 | 1413 | 2826 | 11304 | 28260 | 33912 | 42390 |
| 1200 | 407 | 814 | 2035 | 4069 | 16278 | 40694 | 48833 | 61042 |
| 1400 | 554 | 1108 | 2769 | 5539 | 22156 | 55390 | 66468 | 83084 |
| 1600 | 723 | 1447 | 3617 | 7235 | 28938 | 72346 | 86815 | 108518 |
| 1800 | 916 | 1831 | 4578 | 9156 | 36625 | 91562 | 109875 | 137344 |
| 2000 | 1130 | 2261 | 5652 | 11304 | 45216 | 113040 | 135648 | 169560 |
| 2200 | 1368 | 2736 | 6839 | 13678 | 54711 | 136778 | 164134 | 205168 |
| 2400 | 1628 | 3256 | 8139 | 16278 | 65111 | 162778 | 195333 | 244166 |
| 2600 | 1910 | 3821 | 9552 | 19104 | 76415 | 191038 | 229245 | 286556 |
| 2800 | 2216 | 4431 | 11078 | 22156 | 88623 | 221558 | 265870 | 332338 |
| 3000 | 2543 | 5087 | 12717 | 25434 | 101736 | 254340 | 305208 | 381510 |

• Remark: Recommend flow velocity range 0.5m/s - 15m/s

MODEL SECRET

Selection

DHR-MFEM

| | | | | | | | | | | |
|-------------------------|---|-----|---|---|---|---|---|---|---|---|
| | | XXX | X | X | X | X | X | X | X | X |
| Caliber | DN10~DN3000 3-digital code seeing caliber code table 13 | | | | | | | | | |
| Nominal pressure | 0.6 MPa | | 1 | | | | | | | |
| | 1.0 MPa | | 2 | | | | | | | |
| | 1.6 MPa | | 3 | | | | | | | |
| | 4.0 MPa | | 4 | | | | | | | |
| | Other | | 5 | | | | | | | |
| Connection Model | Flange connection | | 1 | | | | | | | |
| | Clamp connection | | 2 | | | | | | | |
| | Sanitary connection | | 3 | | | | | | | |
| Liner Material | PTFE | | 1 | | | | | | | |
| | PFA | | 2 | | | | | | | |
| | Neoprene | | 3 | | | | | | | |
| | Polyurethane | | 4 | | | | | | | |
| | Ceramic | | 5 | | | | | | | |
| Liner Material | 316L | | 1 | | | | | | | |
| | Hastelloy B | | 2 | | | | | | | |
| | Hastelloy C | | 3 | | | | | | | |
| | Titanium | | 4 | | | | | | | |
| | Platinum-iridium | | 5 | | | | | | | |
| | Tantalum | | 6 | | | | | | | |
| | Stainless steel covered with tungsten carbide | | 7 | | | | | | | |
| Structure type | Integral type | | | | | | 1 | | | |
| | Remote type | | | | | | 2 | | | |
| | Remote type immerse | | | | | | 3 | | | |
| | Integral type Ex-proof | | | | | | 4 | | | |
| | Remote type Ex-proof | | | | | | 5 | | | |
| Power | 220VAC 50Hz | | | | | | | | E | |
| | 24VDC | | | | | | | | G | |
| Structure type | Flow volume 4 ~ 20mADC/pulse | | | | | | | | | A |
| | Flow volume 4 ~ 20mADC/RS232C communication | | | | | | | | | B |
| | Flow volume 4 ~ 20mADC/RS485 communication | | | | | | | | | C |
| | Flow volume HART output/with communication | | | | | | | | | D |
| Power | 220VAC 50Hz | | | | | | | | | E |
| | 24VDC | | | | | | | | | G |

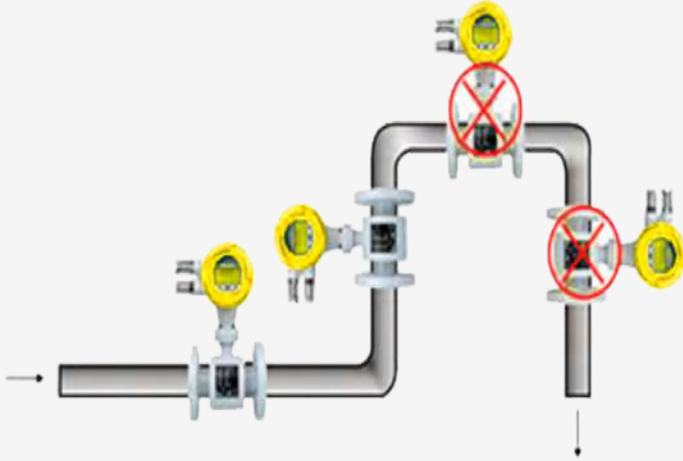
Optional selection

| | |
|---|------------------------|
| | X |
| 1 | Grounding electrode |
| 2 | Coupled flange |
| 3 | Entrance protection |
| 4 | Scraper type electrode |
| 5 | Other |

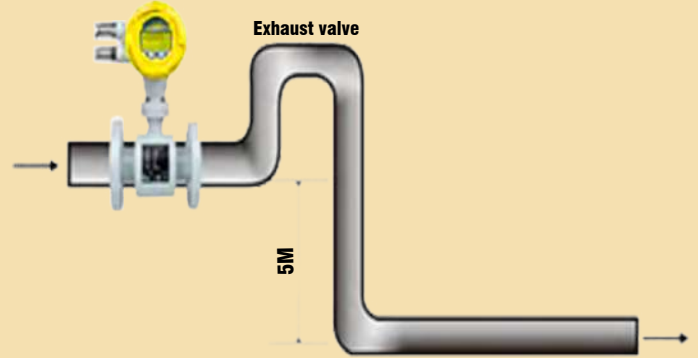
Caliber code table

| Caliber | Code |
|---------|------|
| 10 | 100 |
| 15 | 150 |
| 20 | 200 |
| 25 | 250 |
| 32 | 320 |
| 40 | 400 |
| 50 | 500 |
| 65 | 650 |
| 80 | 800 |
| 100 | 101 |
| 125 | 125 |
| 150 | 151 |
| 200 | 201 |
| 250 | 251 |
| 300 | 301 |
| 350 | 351 |
| 400 | 401 |
| 450 | 451 |
| 500 | 501 |
| 600 | 601 |
| 700 | 701 |
| 800 | 801 |
| 900 | 901 |
| 1000 | 102 |
| 1100 | 112 |
| 1200 | 122 |
| 1400 | 142 |
| 1500 | 152 |
| 1600 | 162 |
| 1800 | 182 |
| 2000 | 202 |
| 2200 | 222 |
| 2400 | 242 |
| 2600 | 262 |
| 2800 | 282 |
| 3000 | 302 |

INSTALLATION



**Install it at the lowest point of vertical upward direction
Do NOT install it at the highest point of vertical downward direction**



When drop is more than 5M, install exhaust valve at the downstream



Install it at the lowest point when used in open drain pipe



Need 10D of upstream and 5D of downstream

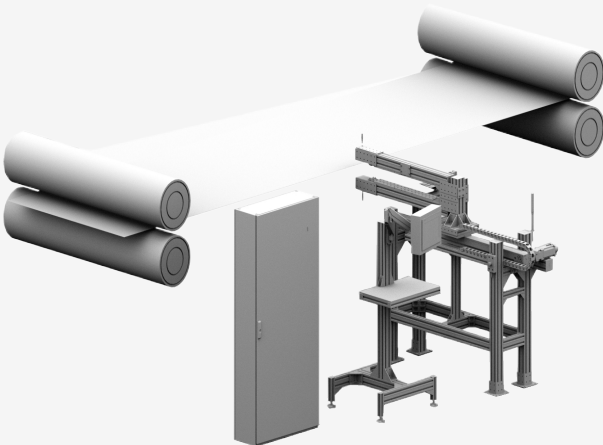


Do NOT install it at the pump's entrance, install it at the pump's exit



Install it at the rising direction

MORE PRODUCTS



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