

# Insertion Electromagnetic Flow Meter

**GAIMC**

## GMF400

### DESCRIPTION

GMF400 Insertion electromagnetic flow meter is composed of insertion electromagnetic sensor and electromagnetic flow converter, used to measure the conductive liquid that electrical conductivity is greater than 5 us/cm , it is used to measure the water, sewage, acid, alkali and other medium. Suitable for measuring the large pipe of diameter DN300~DN3000mm,. Installation can be divided into a online installation type of the cut-off valve and water control installation type without stop valves.



### FEATURES

- 1.Simple structure, no moving parts, long service life.
- 2.Don't need lining, don't need ground ring, small volume, light weight, convenient installation.
- 3.Insertion electromagnetic flow meter with stop valves can realize the installation, dis-assembly, easy maintenance and maintenance when continuous streams.
- 4.Flow measurement is only related to insert depth, so with the feature of wide commonality, strong interchangeability.  
A model can be applicable to all kinds of pipe flow measurement requirements

### SPECIFICATIONS

|                        |                                                               |
|------------------------|---------------------------------------------------------------|
| Medium                 | Water, sewage water, acid, alkali etc.                        |
| Diameter               | Dn300 ~ DN3000mm                                              |
| Accuracy               | ±2.5%                                                         |
| Temp. range            | -20 ~ +150℃                                                   |
| Pressure               | 1.6 MPa                                                       |
| Flow rate              | 0.5 ~ 6m/s                                                    |
| Straight pipe required | Up stream≥5DN, down stream≥3DN                                |
| Electrode              | 316L,Hastelloy C(HC), Titanium(Ti), Tantalum(Ta),Platinum(Pt) |
| Installation way       | Without a ball valve or with a ball valve                     |
| Body material          | Stainless steel                                               |
| Power supply           | 220VAC/24VDC/Lithium battery                                  |
| Signal output          | Pulse output, 4 ~ 20mA                                        |
| Communication          | RS485,Hart, GPRS etc.                                         |
| Explosion proof        | No                                                            |
| Protection class       | IP65(compact type), IP68(remote type)                         |
| Working environment    | Temp. Range: -20 ~ +60℃ , humidity: 5% ~ 90%                  |

Flow rate

$$Q = \pi D^2 \times V \times 0.0036 \div 4$$

| Size(D) | Flow rate (Q) unit (m3/h) |           |           |            |
|---------|---------------------------|-----------|-----------|------------|
|         | V = 0.5 m/s               | V = 1 m/s | V = 6 m/s | V = 10 m/s |
| 300     | 127                       | 254       | 1526      | 2545       |
| 350     | 173                       | 346       | 2077      | 3464       |
| 400     | 226                       | 452       | 2713      | 4523       |
| 450     | 286                       | 572       | 3434      | 5725       |
| 500     | 353                       | 707       | 4239      | 7069       |
| 600     | 509                       | 1017      | 6104      | 10180      |
| 700     | 692                       | 1385      | 8308      | 13847      |
| 800     | 904                       | 1809      | 10852     | 18086      |
| 900     | 1145                      | 2289      | 13734     | 22891      |
| 1000    | 1413                      | 2826      | 16956     | 28260      |
| 1200    | 2035                      | 4069      | 24417     | 40694      |
| 1400    | 2769                      | 5539      | 33234     | 55390      |
| 1600    | 3617                      | 7235      | 43407     | 72346      |
| 1800    | 4578                      | 9156      | 54937     | 91562      |
| 2000    | 5652                      | 11304     | 67824     | 113040     |
| 2200    | 6839                      | 13678     | 82067     | 136778     |
| 2400    | 8139                      | 16278     | 97667     | 162778     |
| 2600    | 9552                      | 19104     | 114623    | 191038     |
| 2800    | 11078                     | 22156     | 132935    | 221558     |
| 3000    | 12717                     | 25434     | 152604    | 254340     |

## TYPE SELECTION

|                  |                          |                          |                          |                          |                          |                          |                          |                                        |
|------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|----------------------------------------|
| GMF400-          | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Note                                   |
| Diameter         | DNXX                     |                          |                          |                          |                          |                          |                          | DN300~DN3000 (mm)                      |
| Structure        | F                        |                          |                          |                          |                          |                          |                          | Remote type (standard with 10m cable)  |
|                  | Y                        |                          |                          |                          |                          |                          |                          | Compact type                           |
| Electrode        | S                        |                          |                          |                          |                          |                          |                          | 316L                                   |
|                  | T                        |                          |                          |                          |                          |                          |                          | Titanium(Ti)                           |
|                  | D                        |                          |                          |                          |                          |                          |                          | Tantalum(Ta)                           |
|                  | C                        |                          |                          |                          |                          |                          |                          | Hastelloy C(HC)                        |
|                  | P                        |                          |                          |                          |                          |                          |                          | Platinum iridium alloy                 |
| Power supply     | 1                        |                          |                          |                          |                          |                          |                          | 85~250VAC                              |
|                  | 2                        |                          |                          |                          |                          |                          |                          | 18~36VDC                               |
|                  | 3                        |                          |                          |                          |                          |                          |                          | Lithium battery(without output signal) |
| Output signal    | 0                        |                          |                          |                          |                          |                          |                          | No output                              |
|                  | 1                        |                          |                          |                          |                          |                          |                          | 4-20m/pulse output                     |
| Communication    | H                        |                          |                          |                          |                          |                          |                          | HART Protocol                          |
|                  | R                        |                          |                          |                          |                          |                          |                          | MODBUS RS485                           |
|                  | G                        |                          |                          |                          |                          |                          |                          | GPRS                                   |
| Installation way | J                        |                          |                          |                          |                          |                          |                          | Without a ball valve                   |
|                  | B                        |                          |                          |                          |                          |                          |                          | With a ball valve                      |