

## INTRODUCTION:

The sanitary flowmeter adopts PTFE lining material to meet the hygienic requirements of the food industry. It adopts stainless steel structure and stainless steel clamp connection. It is convenient for quick disassembly and cleaning of electromagnetic flowmeter.

## FUNCTION:

- ◆ Measure instantaneous flow and cumulative flow.
- ◆ Flow limit setting.Flow Range setting.
- ◆ Lower limit of flow alarm.Flow limit alarm.
- Anti radio interference function.Pipeline empty pipe alarm.
- ◆ Instrument failure alarm.
- ◆ Total flow is recorded in hours/minutes/seconds.
- ◆ Output: pulse signal, output current signal.
- ◆ Transmit the collected data to the operating system or automatic control system through communication cable or wireless mode.
- ◆ Two way measurement system, forward total amount, reverse total amount and difference total amount, can display positive and reverse flow.

## APPLICATION:

- ✓ Food processing
- ✓ Biotechnology/pharmaceutical
- ✓ industry
- ✓ Beverage industry
- ✓ Clean drug cleaning solutions
- ✓ Milk

## SPECIFICATION :

|                          |   |
|--------------------------|---|
| Nominal Dia (mm)         | DN 15~DN 100  |
| Accuracy                 | ± 0.2%, ± 0.3%,±0.5%(flowrate<1m/s) .Optional                       |
| Measuring Range          | 0.5m/s~10m/s  |
| Conductivity of medium   | more than 5μS/cm  |
| Display Unit             | Standard Unit in M3, Litre  |
| Process Temperature      | -20°C~80°C  |
| Process Pressure         | 1.6MPa~4.0MPa,(Optional)  |
| Sensor Protection Class  | IP65,IP67,IP68.Optional   |
| Flow Tube Material       | SS316,SS304(Optional)   |
| Material of Construction | SS304/SS316L  |
| Electrode Material       | SS316L, Hastelloy B/C, Tantalum,Ti,Platinum iridium alloy.etc.      |
| Liner material           | PTFE,ceramics.  |
| Power Supply             | AC220 V/DC24 V/DC3.6V   |
| Output                   | Std. 4 – 20 mA,0Hz~5kHz   |
| Installation             | Tri-Clamp   |
| Communication            | Std RS485,RS485 Modbus RTU (RS232,MODBUS,HART,PROFIBUS-DP,Optional) |
| Display                  | LCD Display   |
| Version                  | Smart /Remote   |



## ELECTRODE MATERIALS:

| Electrode                                    | Application  |
|--|--|
| SS316L                                       | Nitric acid, sulfuric acid with concentration <5% at room temperature, weak acid, alkali solution, sulfite under certain pressure, sea water, acetic acid and other media have strong corrosion resistance.  |
| Hastelloy B<br>Hastelloy C                   | It can resist the corrosion of oxidizing acids, such as nitric acid, mixed acid, or mixed medium of chromic acid and sulfuric acid, and also can resist the corrosion of oxidizing salts, such as $Fe^{++}$ , $Cu^{++}$ . Or hypochloric acid and alkali, seawater                               |
| Titanium                                     | It is resistant to the corrosion of seawater, various chlorides, hypochlorites, chlorinated acids, organic acids, alkalis, etc., and is not resistant to the corrosion of relatively pure reducing acids (such as sulfuric acid and hydrochloric acid)   |
| Tantalum                                     | Excellent corrosion resistance. Except hydrofluoric acid, fuming sulfuric acid and alkali, it can resist the corrosion of almost all chemical media (including hydrochloric acid, nitric acid with boiling, oil and sulfuric acid below 175 °C), but it is not resistant to corrosion in alkali. |
| Platinum-iridium                             | Good corrosion resistance to acid, alkali and various salts, But not resistant to nitromurlatic acid corrosion   |
| Stainless steel coated with tungsten carbide | For non corrosive and strong abrasive media  |

## LINER MATERIALS :

| Liner materials  | Application  |
|--|--|
| Soft rubber (DN50~DN3000)<br>Hard rubber(DN50~ DN3000) | 0 °C ~ 80 °C non strong acid, strong alkali and strong oxidizing medium<br>Masurable sewage and mud  |
| PTFE (≤DN1000)   | 1.-25°C~140°C<br>2. Strong corrosive media such as concentrated acid and alkali<br>3. Sanitary media |
| Polyurethane (≤DN300)                                  | 1.-25°C~60°C<br>2. Neutral strong wear mineral slurry, coal slurry and slurry                        |
| PFA(≤DN250)  | 1.-25 °C ~ 140°C non strong wear medium<br>2. sanitary media   |
| P46(≤DN250)  | 1.-25 °C ~ 100°C non strong wear medium<br>2. sanitary media   |

## SELECTION TABLE:

| Model                           | SDLD-F                                       | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | <input type="checkbox"/> <input type="checkbox"/> | 3   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 1    |
|---------------------------------|--|--|---|-----|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|------|
|                                 |  | (1)  | (2)   | (3) | (4)                      | (5)                      | (6)                      | (7)                      | (8)                      | (9)                      | (10)                     | (11)                     | (12)                     | (13) |
| Caliber                         | DN15-DN100                                   | eg:015 means DN15  |   |     |                          |                          |                          |                          |                          |                          |                          |                          |                          |      |
| Flang standard /                | 0.25Mpa                                      |  | 02  |     |                          |                          |                          |                          |                          |                          |                          |                          |                          |      |
|                                 | 0.6MPa                                       |  | 06  |     |                          |                          |                          |                          |                          |                          |                          |                          |                          |      |
|                                 | 1.0MPa                                       |  | 10  |     |                          |                          |                          |                          |                          |                          |                          |                          |                          |      |
|                                 | 1.6MPa                                       |  | 16  |     |                          |                          |                          |                          |                          |                          |                          |                          |                          |      |
|                                 | ANSI 150                                     |  | 20  |     |                          |                          |                          |                          |                          |                          |                          |                          |                          |      |
|                                 | 4.0MPa                                       |  | 40  |     |                          |                          |                          |                          |                          |                          |                          |                          |                          |      |
|                                 | ANSI 300                                     |  | 50  |     |                          |                          |                          |                          |                          |                          |                          |                          |                          |      |
|                                 | JIS 10K                                      |  | 91  |     |                          |                          |                          |                          |                          |                          |                          |                          |                          |      |
|                                 | JIS 20K                                      |  | 92  |     |                          |                          |                          |                          |                          |                          |                          |                          |                          |      |
|                                 | Customization                                |  | XX  |     |                          |                          |                          |                          |                          |                          |                          |                          |                          |      |
| Liner materials                 | Soft rubber (DN50~DN3000)                    |  |   | 1   |                          |                          |                          |                          |                          |                          |                          |                          |                          |      |
|                                 | Hard rubber(DN50~ DN3000)                    |  |   | 2   |                          |                          |                          |                          |                          |                          |                          |                          |                          |      |
|                                 | PTFE (≤DN1000)                               |  |   | 3   |                          |                          |                          |                          |                          |                          |                          |                          |                          |      |
|                                 | Polyurethane (≤DN300)                        |  |   | 4   |                          |                          |                          |                          |                          |                          |                          |                          |                          |      |
|                                 | PFA(≤DN250)                                  |  |   | 5   |                          |                          |                          |                          |                          |                          |                          |                          |                          |      |
|                                 | F46(≤DN250)                                  |  |   | 6   |                          |                          |                          |                          |                          |                          |                          |                          |                          |      |
|                                 | Ceramics(DN50~ DN150)                        |  |   | 7   |                          |                          |                          |                          |                          |                          |                          |                          |                          |      |
| Electrode Material              | Stainless steel 316L                         |  |   | 1   |                          |                          |                          |                          |                          |                          |                          |                          |                          |      |
|                                 | Hastelloy C                                  |  |   | 2   |                          |                          |                          |                          |                          |                          |                          |                          |                          |      |
|                                 | Hastelloy B                                  |  |   | 3   |                          |                          |                          |                          |                          |                          |                          |                          |                          |      |
|                                 | Titanium                                     |  |   | 4   |                          |                          |                          |                          |                          |                          |                          |                          |                          |      |
|                                 | Tantalum                                     |  |   | 5   |                          |                          |                          |                          |                          |                          |                          |                          |                          |      |
|                                 | Platinum-iridium                             |  |   | 6   |                          |                          |                          |                          |                          |                          |                          |                          |                          |      |
|                                 | Stainless steel coated with tungsten carbide |  |   | 7   |                          |                          |                          |                          |                          |                          |                          |                          |                          |      |
|                                 | Conductive ceramics                          |  |   | 8   |                          |                          |                          |                          |                          |                          |                          |                          |                          |      |
| Grounding and lining protection | Grounding screws                             |  |   |     | 0                        |                          |                          |                          |                          |                          |                          |                          |                          |      |
|                                 | Grounding rings                              |  |   |     | 1                        |                          |                          |                          |                          |                          |                          |                          |                          |      |
|                                 | Grounding electrodes                         |  |   |     | 2                        |                          |                          |                          |                          |                          |                          |                          |                          |      |
|                                 | Inlet protection flange                      |  |   |     | 3                        |                          |                          |                          |                          |                          |                          |                          |                          |      |
| Materials temperature           | ≤80℃   |  |   |     |                          |                          | A                        |                          |                          |                          |                          |                          |                          |      |
|                                 | ≤120℃  |  |   |     |                          |                          | B                        |                          |                          |                          |                          |                          |                          |      |
|                                 | ≤180℃  |  |   |     |                          |                          | C                        |                          |                          |                          |                          |                          |                          |      |
| Protection Grade                | IP65   |  |   |     |                          |                          |                          | 1                        |                          |                          |                          |                          |                          |      |
|                                 | IP67   |  |   |     |                          |                          |                          | 2                        |                          |                          |                          |                          |                          |      |
|                                 | IP68   |  |   |     |                          |                          |                          | 3                        |                          |                          |                          |                          |                          |      |
|                                 | IP65+Ex d ib mb IIC T4 Gb                    |  |   |     |                          |                          |                          | 4                        |                          |                          |                          |                          |                          |      |
| Structure                       | Integrated                                   |  |   |     |                          |                          |                          |                          | C                        |                          |                          |                          |                          |      |
|                                 | Seperated                                    |  |   |     |                          |                          |                          |                          | R                        |                          |                          |                          |                          |      |
| Power Supply                    | 85~265VAC/45~63Hz                            |  |   |     |                          |                          |                          |                          |                          | A                        |                          |                          |                          |      |
|                                 | 16~36VDC                                     |  |   |     |                          |                          |                          |                          |                          | D                        |                          |                          |                          |      |
|                                 | 3.6VDC                                       |  |   |     |                          |                          |                          |                          |                          | B                        |                          |                          |                          |      |
| Display                         | LCD  |  |   |     |                          |                          |                          |                          |                          |                          | 1                        |                          |                          |      |
|                                 | OLED   |  |   |     |                          |                          |                          |                          |                          |                          | 2                        |                          |                          |      |
| Signal Output And Communication | 4~20 mA+ Pulse+alarm (standards)             |  |   |     |                          |                          |                          |                          |                          |                          |                          | 0                        |                          |      |
|                                 | 4~20 mA+ Pulse+alarm+RS232                   |  |   |     |                          |                          |                          |                          |                          |                          |                          | 2                        |                          |      |
|                                 | 4~20 mA+ Pulse+alarm+RS485                   |  |   |     |                          |                          |                          |                          |                          |                          |                          | 4                        |                          |      |
|                                 | 4~20 mA+ Pulse+alarm+MODBUS                  |  |   |     |                          |                          |                          |                          |                          |                          |                          | M                        |                          |      |
|                                 | 4~20 mA+ Pulse+alarm+HART                    |  |   |     |                          |                          |                          |                          |                          |                          |                          | H                        |                          |      |
|                                 | 4~20 mA+ Pulse+alarm+Profibus+DP             |  |   |     |                          |                          |                          |                          |                          |                          |                          | P                        |                          |      |
| Calibration                     | ±0.5% three flow                             |  |   |     |                          |                          |                          |                          |                          |                          |                          |                          | 1                        |      |
|                                 | ±0.2% five flow                              |  |   |     |                          |                          |                          |                          |                          |                          |                          |                          | 2                        |      |
|                                 | ±0.5% five flow                              |  |   |     |                          |                          |                          |                          |                          |                          |                          |                          | 3                        |      |
|                                 | Standard                                     |  |   |     |                          |                          |                          |                          |                          |                          |                          |                          | X                        |      |
| Shell Material                  | Carbon steel                                 |  |   |     |                          |                          |                          |                          |                          |                          |                          |                          |                          | 0    |
|                                 | Stainless steel 304                          |  |   |     |                          |                          |                          |                          |                          |                          |                          |                          |                          | 1    |

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