

# HFM200 VOTEX FLOW METER



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## Overview

HFM200 Vortex Flowmeter is a new type stress detection vortex flowmeter, which adopts piezoelectric crystal as measuring element based on Karmann vortex principle. It has lots of advantages such as wide range rate, high accuracy, small pressure losing, great medium versatility, with pulse signal output proportionate to flow, easy connection with computer. As the inspection probe is installed separately with vortex generator, and the heat-resisting piezoelectric crystal does not connect with medium, therefore the instrument has simple structure, great versatility and high stability features.

## Features

- .clear LCD display screen, display instantaneous flow and cumulative flow respectively
- .high-strength piezoelectric crystal, integrated structure, impact resistance
- .optional temperature compensation, pressure temperature, to meet more field services
- .The circuit board is processed through ageing before delivery, and it is with the real flow calibration for whole machine , more suitable for field use.
- .No external power supply is required. It adopts 3.6V lithium batter for power supply, which can continuously work more than two years, especially suitable for use in the field where the power supply is difficult to access.

## Technical Parameter

|                                    |   |
|------------------------------------|---|
| Aperture Diameter (mm)             | 15, 20, 25, 40, 50, 65, 80, 100, 125, 150, 200, 250, 300, (300~1000 plug in)                      |
| Nominal Pressure (MPa)             | DN15-DN200 4.0(>4.0, negotiation ), DN250-DN300 1.6(>1.6,negotiation )                            |
| Medium Temperature (℃)             | Piezoelectric type: -40~150, -40~260, -40~330; capacitive type: -40~400, -40~500 (negotiation )   |
| Body Material                      | 1Cr18Ni9Ti, (other materials: negotiation )   |
| Permissible Vibration Acceleration | Piezoelectric type:0.2g, capacitive type:1.0~2.0g   |
| Accuracy                           | ±1% , ±1.5%; Plug in type: ±2.5%  |
| Range Rate                         | 1:6~1:30  |
| Supply Voltage                     | Sensor: DC +12V, DC +24V; transmitter: DC +12V , DC +24V; battery powered; 3.6V battery           |
| Output Signal                      | Square-wave pulse(excluding battery powered): high level≥5V, low level≤1V; current: 4~20mA        |
| Pressure Loss Coefficient          | Meet JB/T9249 standards Cd≤2.4  |
| Explosion-proof Sign               | Intrinsic safety type: Exd II ia CT2-T5 ; explosion type: Exd II CT2-T5                           |
| Ingress Protection                 | Normal: IP65 Diving: IP68   |
| Environmental Conditions           | Temperature: -20℃~55℃, Relative humidity: 5%~90%, Atmospheric pressure: 86~106kPa                 |
| Suitable Medium                    | Gas, liquid, steam  |
| Transmission Distance              | Three-wire pulse output≤300m, two-wire standard current output (4~20mA) ≤1500m, RS485/HART≤1200m. |

## Ordering Guide

| Item NO.                                      | Code |   |   |   |   |   |   |   |   |   | Illustration |  |
|---|------|---|---|---|---|---|---|---|---|---|--------------|--|
| HFM200  | -    | - | - | - | - | - | - | - | - | - | -            | Vortex Shedding Flowmeter  |
| Installment Way                               | F    | - | - | - | - | - | - | - | - | - | -            | Flange Type<br>Camping Type  |
|   | D    | - | - | - | - | - | - | - | - | - | -            |  |
| Medium  | G    | - | - | - | - | - | - | - | - | - | -            | Gas Flow<br>Liquid Flow<br>Steam Flow                              |
|   | L    | - | - | - | - | - | - | - | - | - | -            |  |
|   | S    | - | - | - | - | - | - | - | - | - | -            |  |
| Inside Nominal Diameter                       | 15   | - | - | - | - | - | - | - | - | - | -            | DN15<br>DN20<br>...<br>DN300                                       |
|   | 20   | - | - | - | - | - | - | - | - | - | -            |  |
|   | -    | - | - | - | - | - | - | - | - | - | -            |  |
|   | 300  | - | - | - | - | - | - | - | - | - | -            |  |
| Supply Voltage                                | 0    | - | - | - | - | - | - | - | - | - | -            | 3.6V Lithium Battery<br>24V DC<br>Duplicate Supply                 |
|   | 1    | - | - | - | - | - | - | - | - | - | -            |  |
|   | 2    | - | - | - | - | - | - | - | - | - | -            |  |
| Header  | D    | - | - | - | - | - | - | - | - | - | -            | Digital Display Header<br>No Display Header                        |
|   | N    | - | - | - | - | - | - | - | - | - | -            |  |
| Output Signal                                 | P    | - | - | - | - | - | - | - | - | - | -            | Pulse<br>4~20mA<br>RS485   |
|   | A    | - | - | - | - | - | - | - | - | - | -            |  |
|   | R    | - | - | - | - | - | - | - | - | - | -            |  |
| Sensor Material                               | S4   | - | - | - | - | - | - | - | - | - | -            | Stainless Steel 304<br>Stainless Steel 316L<br>Other Customization |
|   | S6   | - | - | - | - | - | - | - | - | - | -            |  |
|   | OT   | - | - | - | - | - | - | - | - | - | -            |  |
| Medium Temperature                            | E    | - | - | - | - | - | - | - | - | - | -            | (-40~250) °C<br>(100~350) °C                                       |
|   | H    | - | - | - | - | - | - | - | - | - | -            |  |
| Rated Pressure                                | 10   | - | - | - | - | - | - | - | - | - | -            | 10bar<br>16bar<br>25bar<br>40bar                                   |
|   | 16   | - | - | - | - | - | - | - | - | - | -            |  |
|   | 25   | - | - | - | - | - | - | - | - | - | -            |  |
|   | 40   | - | - | - | - | - | - | - | - | - | -            |  |
| Explosion-proof Grade                         | 0    | - | - | - | - | - | - | - | - | - | -            | Non-explosionproof<br>Explosion-proof Type                         |
|   | Exd  | - | - | - | - | - | - | - | - | - | -            |  |
| Reference Item: HFM200-F-G-20-1-D-A-S4-E-10-0 |      |   |   |   |   |   |   |   |   |   |              |  |