



**Turbine flowmeter**

# **Datasheet**

SUP-LWGY

SUP-LWGY series turbine flow meters have the features: high accuracy, good repeatability, convenient installation/maintenance, simple structure etc.

Liquid flows through the turbine housing causing an internal rotor to spin. As the rotor spins, an electrical signal is generated in the pickup coil. This signal is converted into engineering units (liters, cubic meters, gallons etc.) on the local display where is applicable. Optional accessory modules can be used to export the signal to other equipment.

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## **Technical Specification**

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### **Performance**

- Repeatability:  $\pm 0.2\%$
- Accuracy: Standard:  $\pm 1\%$  of reading;  
Optional:  $\pm 0.5\%$  of reading

### **Wetted Components**

- Housing: Standard - 304 Stainless Steel Optional - 316 Stainless Steel
- Bearings and Shaft: Tungsten Carbide
- Rotor: Standard - 2Cr13 Stainless Steel (Optional Alloy CD4Mcu)
- Retaining Rings: 316 Stainless Steel

### **Output Signal: (Where applicable)**

- Sensor: Pulse signal (Low Level:  $\leq 0.8V$ ; High Level:  $\geq 8V$ )
- Transmitter: 4 to 20 mA DC current signal
  
- Signal Transmission Distance:  $\leq 1,000$  m

### **Electrical Connections:**

- Basic Type: Hausman Connector or three-core cable: ISO M20 $\times$ 1.5 Female

### **Protection Level:**

- IP65

### **Flange Connections**

- For standard product, the flange follows GB/T 9119-2000 (ISO 7005-1) RF (Raised Face).

## Operation Conditions

### Ambient:

- Temperature: -10°C to +55°C
- Pressure: 86 to 106 KPa
- Relative Humidity: 5% to 90%

### Power Supply:

- Sensor: +12V DC (Optional: +24V DC)
- Transmitter: +24V DC
- Field Display Type B: Integral 3.2V Lithium Battery

(Others available on request)

- Field Display Type C: +24V DC

### Fluid Temperature and Pressure:

- Temperature: -20°C to +110°C
- Pressure: Fluid pressure should be limited according to rating.

### Measurable Flow Rate Range and Pressure Level:(Seetable1)

Table 1. Measurable Flow Range and Pressure Rating

Nominal Diameter		Standard Flow Range (SFR)	Extended Flow Range (EFR)	Standard Pressure Rating	Customized Pressure Rating
(mm)	(in.)	(m <sup>3</sup> /h)	(m <sup>3</sup> /h)	(MPa)	(MPa) - Flange Fitting
4	0.15	0.04 to 0.25	0.04 to 0.4	Thread: 6.3	12, 16, 25
6	0.25	0.1 to 0.6	0.06 to 0.6	Thread: 6.3	12, 16, 25
10	0.4	0.2 to 1.2	0.15 to 1.5	Thread: 6.3	12, 16, 25
15	0.5	0.6 to 6	0.4 to 8	Thread: 6.3; Flange: 2.5	4.0, 6.3, 12, 16, 25
20	0.75	0.8 to 8	0.45 to 9	Thread: 6.3; Flange: 2.5	4.0, 6.3, 12, 16, 25
25	1	1 to 10	0.5 to 10	Thread: 6.3; Flange: 2.5	4.0, 6.3, 12, 16, 25
32	1.25	1.5 to 15	0.8 to 15	Thread: 6.3; Flange: 2.5	4.0, 6.3, 12, 16, 25
40	1.5	2 to 20	1 to 30	Thread: 6.3; Flange: 2.5	4.0, 6.3, 12, 16, 25
50	2	4 to 40	2 to 40	Flange: 2.5	4.0, 6.3, 12, 16, 25
65	2.5	7 to 70	4 to 70	Flange: 2.5	4.0, 6.3, 12, 16, 25
80	3	10 to 100	5 to 100	Flange: 2.5	4.0, 6.3, 12, 16, 25
100	4	20 to 200	10 to 200	Flange: 1.6	4.0, 6.3, 12, 16, 25
125	5	25 to 250	13 to 250	Flange: 1.6	2.5, 4.0, 6.3, 12, 16
150	6	30 to 300	15 to 300	Flange: 1.6	2.5, 4.0, 6.3, 12, 16
200	8	80 to 800	40 to 800	Flange: 1.6	2.5, 4.0, 6.3, 12, 16

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## Cautions For Installation

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### Mounting Positions

• Turbine flow meters should be installed at the place in compliance with the requirements below:

- ◇ Easy maintenance
- ◇ No electromagnetic interface
- ◇ No vibration
- ◇ Away from heat source

### Mounting Orientation

• All turbine flow meters are designed to measure flow in only one direction. The direction is indicated by the arrow on the body.

### Required Lengths of Straight Runs

• Flow altering device such as elbows, valves and reducers can affect accuracy. See diagram 1 for typical flow meter system installation.

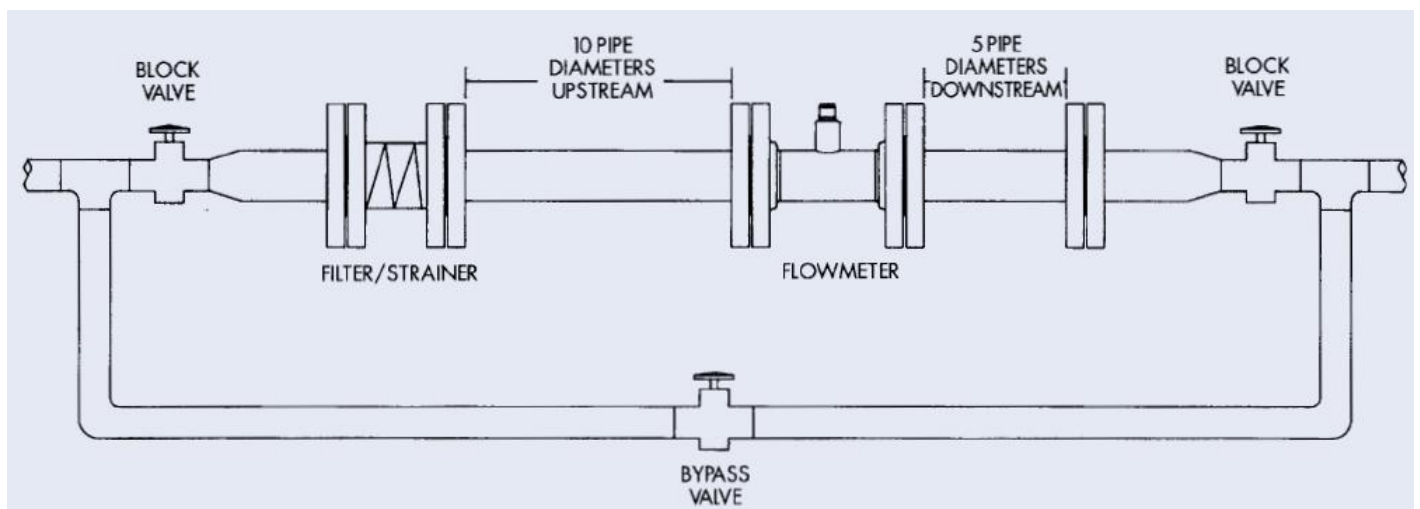
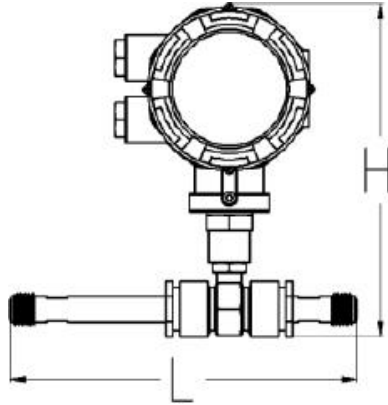


Diagram 1. Typical Flow Meter System Installation

## Installation Dimensions

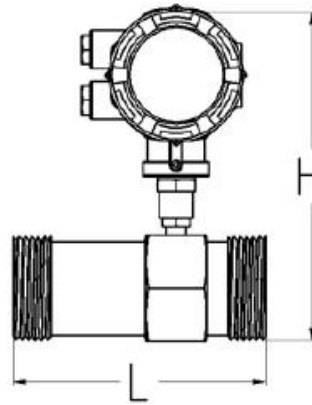
Thread or flange connection is used according to different flow models.

### Thread connection dimensions

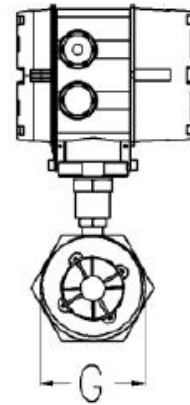


DN4-DN10

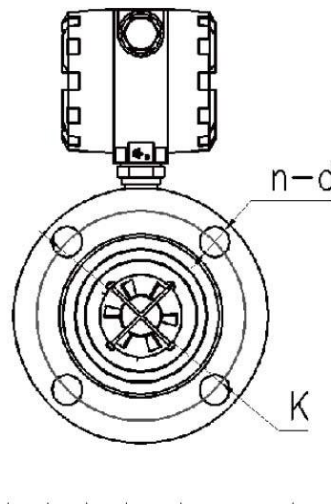
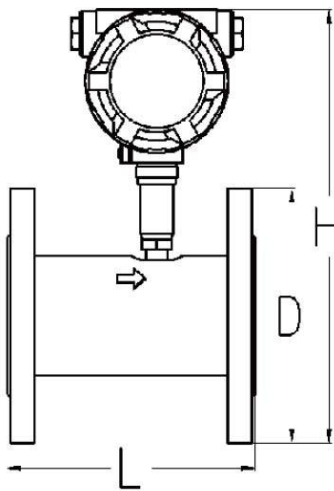
( straight section is included)



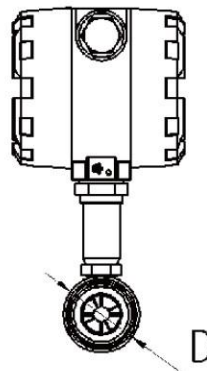
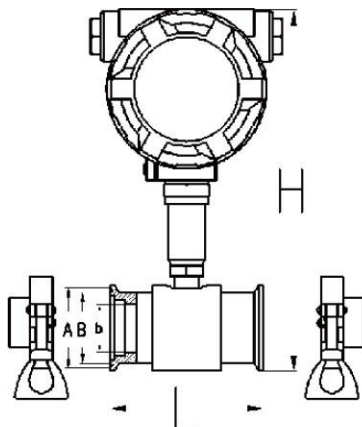
DN15-DN50



### Flange connection



### Sanitary Connection





### **China**

China Headquarters

Address: No.600, No. 21 Street,  
Hangzhou Developmental Zone,  
Zhejiang, China

### **Singapore**

Singapore Branch

Address: 2 Venture  
Drive #11-30 Vision  
Exchange Singapore

### **Germany**

German Branch

Address: Göttinger Straße.59  
30449 Hannover Niedersachsen  
Deutschland

### **Malaysia**

Malaysia Branch

Address: No 3, Jalan Emas  
Jaya 1, Taman Industries  
Emas jaya Tongkang  
Pecah , Batu Pahat