

EUF Series

Ultrasonic Flowmeter

Product Selection Manual



Zhejiang ELEsenson Sensors Co., Ltd.

Add: No. 7 Xingtang Road, Tangxia Industrial Zone, Yueqing, Wenzhou, Zhejiang, China
Tel: +86-577-6283-3666
phone: +86-181-0016-5100
Web: www.elesenson.com
Email: elesenson@gmail.com

Zhejiang ELEsenson Sensors Co., Ltd.



CONTENTS

▸ PRODUCT CATEGORY P36

| · Integrated & Split-body Series

▸ APPLICATIONS P38

▸ COMPANY PROFILE P42

Split-body

Ultrasonic Flowmeter



— Product Introduction

ELEsenson ultrasonic flowmeter is specially designed for measuring liquid flow inside pipes. It realizes real-time flow measurement for production processes and outputs digital & analog signals for metering and process control.

Equipped with advanced measuring chip with time resolution up to 20 ps, it guarantees high-precision measurement. A 4-line IPS-LCD display clearly shows date, signal strength, instantaneous flow and totalized volume for easy reading even in dim environments. Unique built-in-magnet design enables auto-clamping with captive screws. Installation can be completed by one hand within 60 seconds. Drop-down-list menu navigation with four tactile keys supports Simplified-Chinese / Traditional-Chinese / English multi-language switching. No menu-code memorization required for simple operation.

— Features

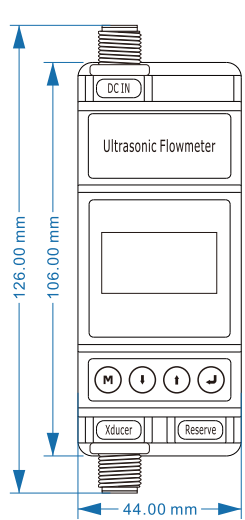
- **Clamp-on Mounting**
Clamps externally onto pipe outer wall, no pipe cutting or modification required for fast & easy installation.
- **User-friendly Operation**
No professional expertise required. Intuitive menu workflow completes setup and measurement with low operation threshold.
- **No Mechanical Wear**
No moving parts; zero pressure loss, ensuring measuring accuracy and long-term stability.
- **Hot-tap Installation**
Install without production shutdown. Minimize production downtime and improve productivity.

— Specifications

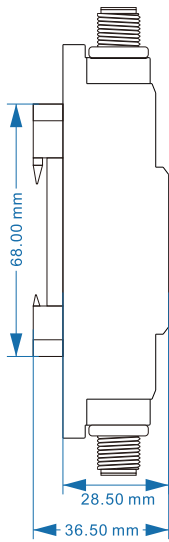
Item		Specifications
Measuring Accuracy	±2.0%(0.3m/s-5.0m/s)	
Flow Velocity Range	0.1m/s-5.0m/s	
Linearity	±2.0%(0.3m/s-5.0m/s)	
Repeatability	0.8%	
Response Time	500ms	
Display	1.54-inch 240×240 IPS LCD, 4-way rotatable for convenient reading	
Menu Language	Simplified-Chinese, Traditional-Chinese, English	
Display Units	Metric & Imperial optional: m³/h, LPM, ml/min, GPM, LPH; Factory default: m³/h	
Displayed Data	Instantaneous flow, instantaneous velocity, net total, batch total, daily max / min, daily-monthly-yearly total	
Totalizer	7-digit flow totalizer	
Total Data Logging	10-year / 64-month / 64-day storage	
Operation Keys	4 tactile push-buttons	
Calendar Battery	CR1220	
Power Supply	24VDC@3W	
Analog Output	4-20 mA, max. load 600 Ω	
Communication	RS485, Modbus RTU protocol supported	
Alarm Output	OCT upper/lower limit alarm, pulse output (optional)	
Relay Output	Optional: 30 VDC @1 A, max. switching frequency <2 Hz	
Measurable Media	Water, aqueous solutions, chemical reagents (impurity content <4%)	
Ingress Protection	IP54 / IP65	
Installation Type	Integrated	Split-body
Pipe Outer Diameter	OD9.53-OD220(DN6-DN200)	
Wetted Material	Non-contact	
Medium Temp.	Normal-temp Split:-10℃-70℃	
Ambient Temperature	-10℃-50℃	
Ambient Humidity	0-95 % RH, non-condensing	
Allowable Viscosity	<300CST(mm²/s)	
Cable Length	Output & transducer cable each 2 m (extendable up to 20 m)	

— Dimension Drawing

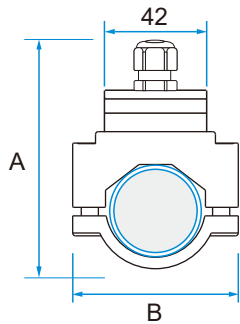
Split-type



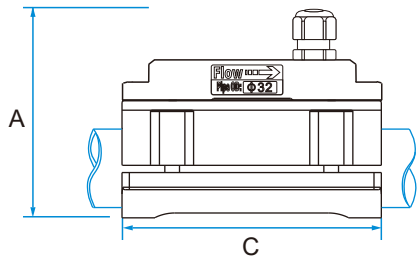
Main Unit (Front View)



Main Unit (Side View)

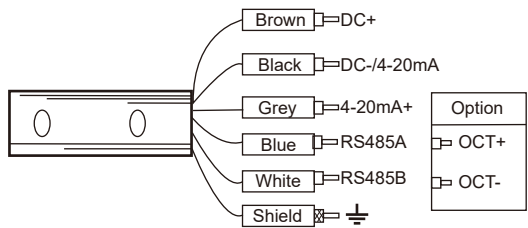


End View (Up-down Clamp-on Type)



Side View (Up-down Clamp-on Type)

— Wiring Diagram



Normal-temperature Integrated Ultrasonic Flowmeter



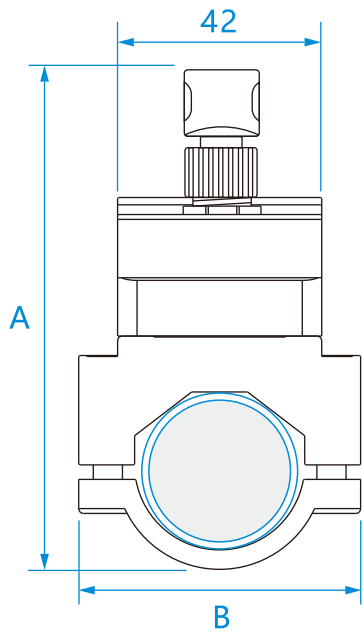
— Features

- Advanced built-in measurement chip
- Unique built-in-magnet structure; auto-clamping with captive screws;
one-hand 60-s quick installation
- 4-line OLED display; clear view for date / signal / instantaneous / total volume;
readable under low-light conditions; flow-&-temperature bar-chart support
- Innovative drop-down-list menu; 4 tactile keys;
Simplified-Chinese / Traditional-Chinese / English language switching

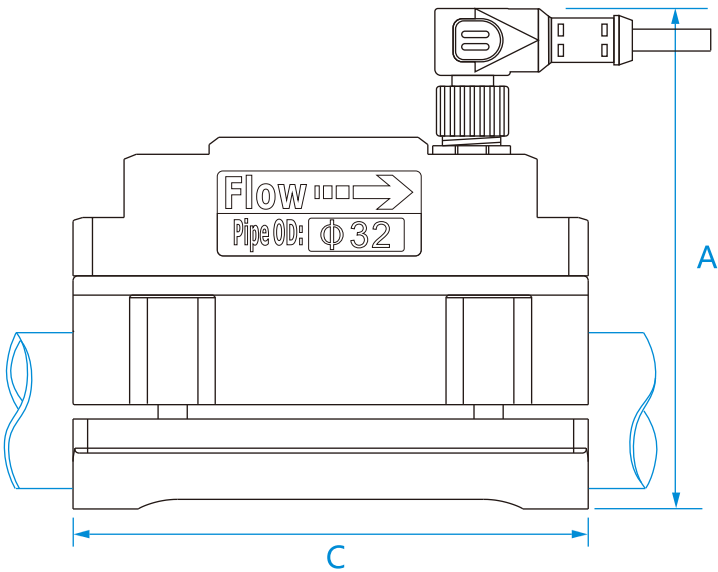
— Specifications

Item	Specifications
Measuring Accuracy	±2.0%(0.3m/s-5.0m/s)
Flow Velocity Range	0.1m/s-5.0m/s
Linearity	±2.0%(0.3m/s-5.0m/s)
Repeatability	0.8%
Response Time	500ms
Display	1.54-inch 240×240 IPS LCD, 4-way rotatable for convenient reading
Menu Language	English
Display Units	Metric & Imperial optional: m³/h, LPM, ml/min, GPM, LPH; Factory default: m³/h
Displayed Data	Instantaneous flow, instantaneous velocity, net total, batch total, daily max / min, daily-monthly-yearly total
Totalizer	7-digit flow totalizer
Total Data Logging	10-year / 64-month / 64-day storage
Operation Keys	4 tactile push-buttons
Calendar Battery	CR1220
Power Supply	24VDC@3W
Analog Output	4-20 mA, max. load 600 Ω
Communication	RS485, Modbus RTU protocol supported
Alarm Output	OCT upper/lower limit alarm, pulse output (optional)
Relay Output	Optional: 30 VDC @1 A, max. switching frequency <2 Hz
Measurable Media	Water, aqueous solutions, chemical reagents (impurity content <4%)
Ingress Protection	IP54 / IP65
Installation Type	Integrated
Pipe Outer Diameter	OD9.53-OD110(DN6-DN100)
Wetted Material	Non-contact
Medium Temp.	-10℃-50℃
Ambient Temperature	-10℃-50℃
Ambient Humidity	0-95 % RH, non-condensing
Allowable Viscosity	<300CST(mm²/s)
Cable Length	Output & transducer cable each 2 m (extendable up to 20 m)

— Dimension Drawing



End View



Side View

Pipe-section Integrated Ultrasonic Flowmeter



Product Introduction

Focused on flow-measurement technology, this instrument measures liquid flow inside pipes and outputs digital / analog signals for process metering & control. Traditional flowmeters have limited I/O functions and are hard to retrofit on-site. This pipe-section type features full straight-pipe zero-pressure-loss design and double union connections for simple installation.

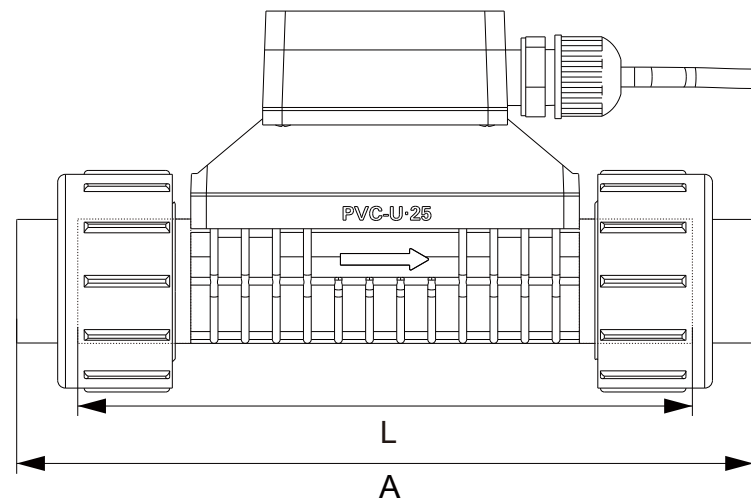
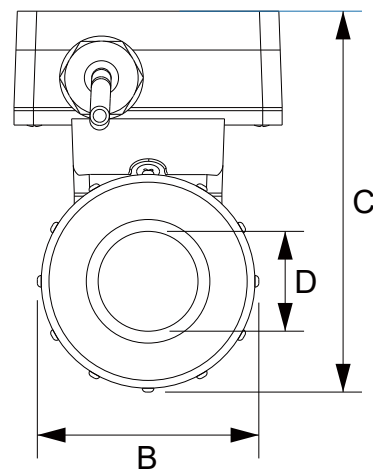
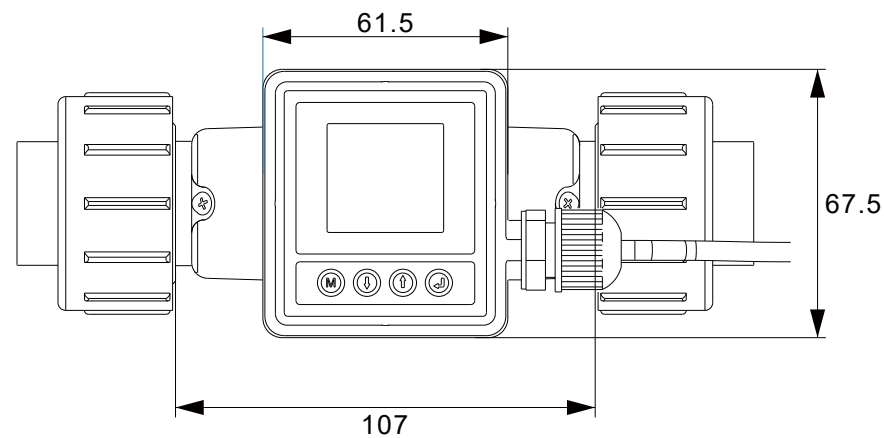
Features

- Advanced measuring chip, time resolution up to 20 ps
- 4-line IPS-LCD display; clear reading for date/signal/instant/total; bar-chart visualization for flow & temperature
- IP66 protection rating; injection-molded monolithic housing; double-union connections for reliable assembly
- Drop-down-list menu; 4 tactile keys; multi-language support(S-CH / T-CH / EN)

Specifications

Item	Specifications
Measuring Accuracy	±1.0%(0.3m/s-5.0m/s)
Flow Velocity Range	0.1m/s-10.0m/s
Linearity	±1.0%(0.3m/s-5.0m/s)
Repeatability	0.4%
Response Time	500ms
Display	1.54-inch 240×240 IPS LCD, 4-way rotatable for convenient reading
Menu Language	English
Display Units	Metric & Imperial optional: m³/h, LPM, ml/min, GPM, LPH; Factory default: LPM
Displayed Data	Instantaneous flow, instantaneous velocity, net total, batch total, daily max / min, daily-monthly-yearly total
Totalizer	7-digit flow totalizer
Total Data Logging	10-year / 64-month / 64-day storage
Operation Keys	4 tactile push-buttons
Calendar Battery	CR1220
Power Supply	24VDC@3W
Analog Output	4-20 mA, max. load 600 Ω
Communication	RS485, Modbus RTU protocol supported
Alarm Output	OCT upper/lower limit alarm, pulse output (optional)
Relay Output	Optional: 30 VDC @1 A, max. switching frequency <2 Hz
Measurable Media	Water, aqueous solutions, chemical reagents (impurity content <4%)
Ingress Protection	IP66
Installation Type	Integrated
Pipe Outer Diameter	OD20(DN15), OD25(DN20), OD32(DN25), OD40(DN32)
Wetted Material	UPVC
Medium Temp.	0 °C ~ 60 °C
Ambient Temperature	-10°C-50°C
Ambient Humidity	0-95 % RH, non-condensing
Allowable Viscosity	<300CST(mm²/s)
Cable Length	Output & transducer cable each 2 m (extendable up to 20 m)

— Dimension Drawing



Integrated Normal-temp Anti-corrosion Ultrasonic Flowmeter



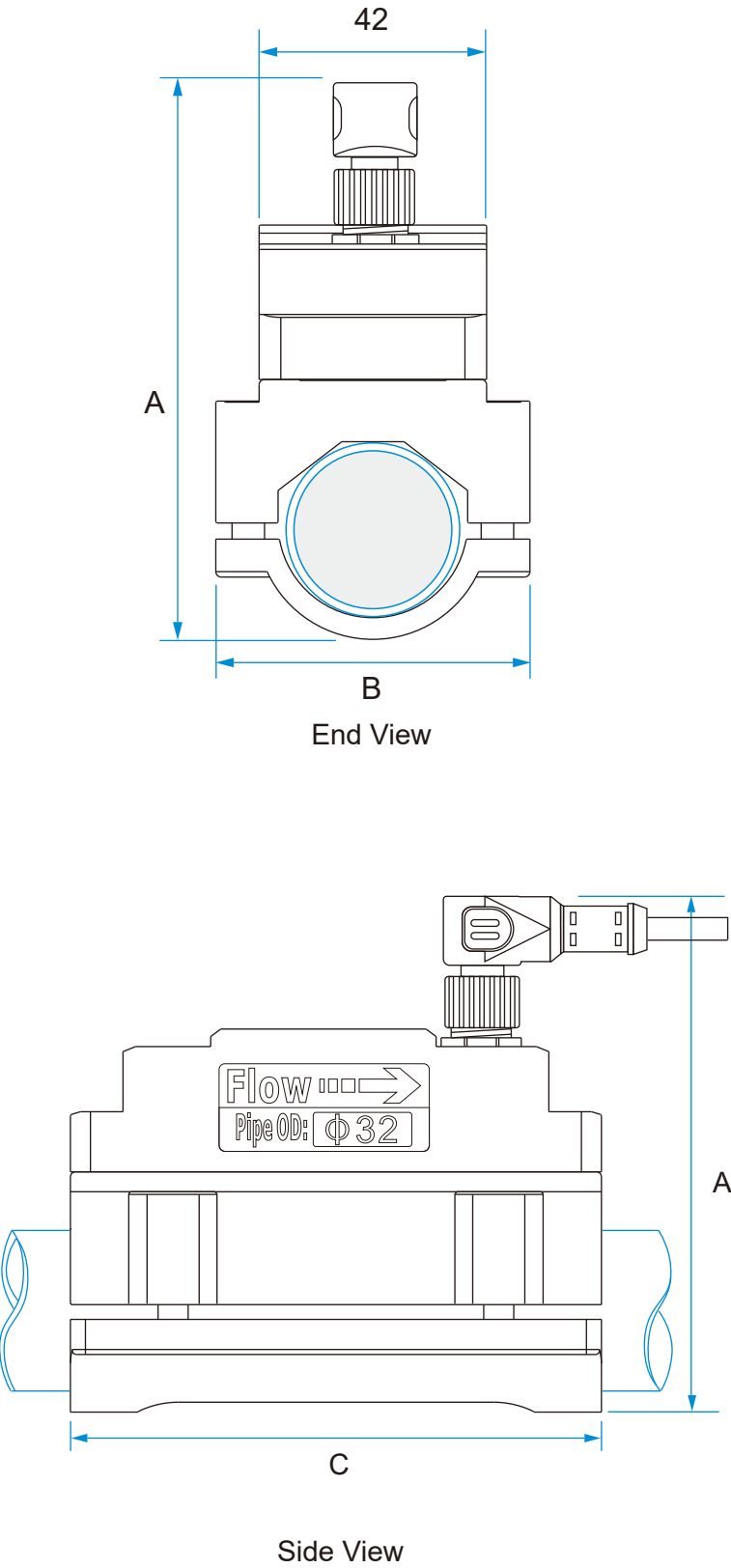
— Features

- Advanced built-in measurement chip
- Built-in magnet for auto-clamping; captive-screw design; one-hand 60-second installation
- 4-line OLED display; date / signal / instantaneous / total volume readable in dim light; flow-temperature bar-chart
- Drop-down-menu UI; four tactile keys; S-CH / T-CH / English switching

— Specifications

Item	Specifications
Measuring Accuracy	±2.0%(0.3m/s-5.0m/s)
Flow Velocity Range	0.1m/s-5.0m/s
Linearity	±2.0%(0.3m/s-5.0m/s)
Repeatability	0.8%
Response Time	500ms
Display	1.54-inch 240×240 IPS LCD, 4-way rotatable for convenient reading
Menu Language	S-CH / T-CH / EN
Display Units	Metric & Imperial optional: m³/h, LPM, ml/min, GPM, LPH; Factory default: m³ /h
Displayed Data	Instantaneous flow, instantaneous velocity, net total, batch total, daily max / min, daily-monthly-yearly total
Totalizer	7-digit flow totalizer
Total Data Logging	10-year / 64-month / 64-day storage
Operation Keys	4 tactile push-buttons
Calendar Battery	CR1220
Power Supply	24VDC@3W
Analog Output	4-20 mA, max. load 600 Ω
Communication	RS485, Modbus RTU protocol supported
Alarm Output	OCT upper/lower limit alarm, pulse output (optional)
Measurable Media	Water, aqueous solutions, chemical reagents (impurity content <4%)
Ingress Protection	IP54/IP65
Installation Type	Integrated anti-corrosion
Pipe Outer Diameter	OD9.53-OD110 (DN6-DN100)
Wetted Material	Non-contact
Medium Temp.	-10 °C ~ 50 °C
Ambient Temperature	-10 °C ~ 50 °C
Ambient Humidity	0-95 % RH, non-condensing
Allowable Viscosity	<300CST(mm²/s)
Cable Length	Output & transducer cable each 2 m (extendable up to 20 m)

— Dimension Drawing



Mini-size Clamp-on Split-body Ultrasonic Flowmeter



— Product Introduction

Specialized for liquid flow measurement inside pipes, it performs real-time flow acquisition and outputs digital / analog signals for metering and process automation control.

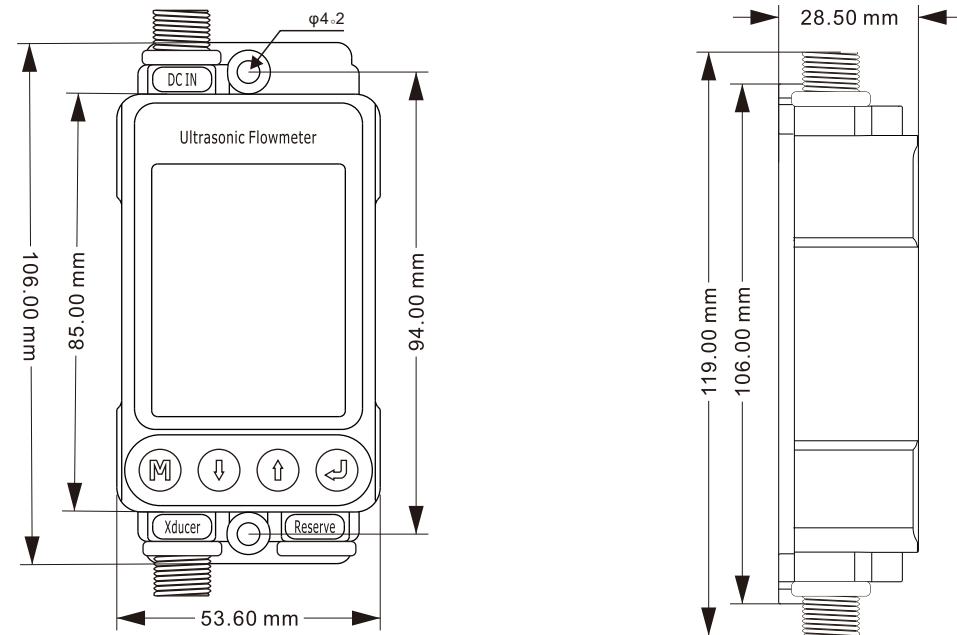
— Features

- Advanced measuring chip with 20 ps time resolution
- Fast and reliable velocity detection for plastic pipes
Non-intrusive sensor, no medium contact. Ideal for biopharma, medical equipment and semiconductor liquid-monitoring with strict sanitary requirements
- Comprehensive display:
date, signal strength, instantaneous flow, accumulated volume;
bar-chart for flow & temperature, readable under dim light
- Innovative drop-down-list menu;
four tactile keys for easy configuration

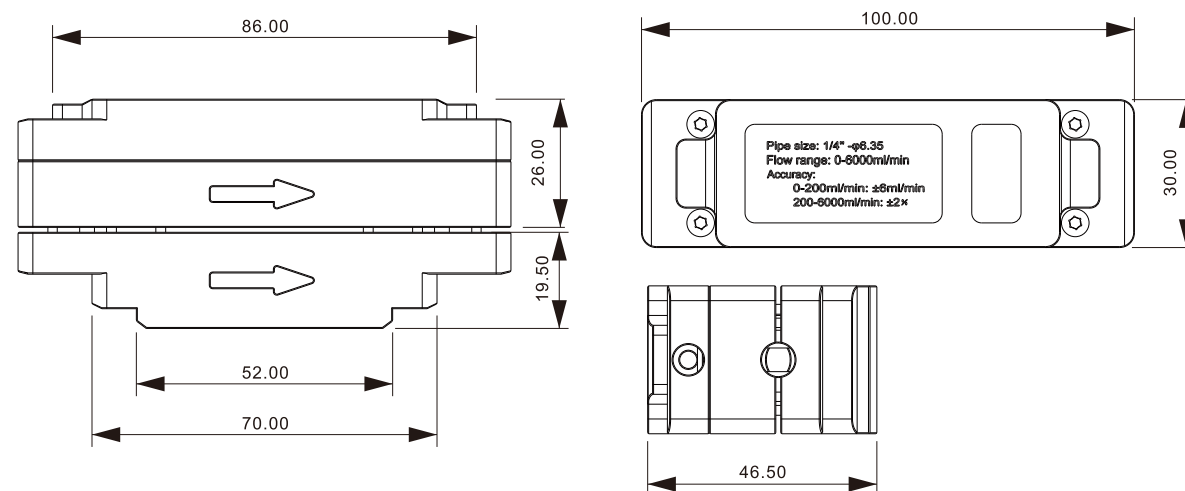
— Specifications

Item	Specifications
Measuring Accuracy	±2.0%(0.3m/s-5.0m/s)
Flow Velocity Range	0.1m/s-5.0m/s
Linearity	±2.0%(0.3m/s-5.0m/s)
Repeatability	0.8%
Response Time	500ms
Display	2.4-inch 320×240 IPS-LCD, four-way rotatable
Menu Language	S-CH / T-CH / EN
Display Units	Metric & Imperial optional: m³/h, LPM, ml/min, GPM, LPH; Factory default: ml/min
Displayed Data	Instantaneous flow, instantaneous velocity, net total, batch total, daily max / min, daily-monthly-yearly total
Totalizer	7-digit flow totalizer
Total Data Logging	10-year / 64-month / 64-day storage
Operation Keys	4 tactile push-buttons
Calendar Battery	CR1220
Power Supply	24VDC@3W
Analog Output	4-20 mA, max. load 600 Ω
Communication	RS485, Modbus RTU protocol supported
Alarm Output	OCT upper/lower limit alarm, pulse output (optional)
Relay Output	Optional: 30 VDC @1 A, max. switching frequency <2 Hz
Measurable Media	Water, aqueous solutions, chemical reagents (impurity content <4%)
Ingress Protection	IP54/IP65
Installation Type	Split-type
Pipe Outer Diameter	φ6-φ12.7
Wetted Material	Non-contact
Medium Temp.	Normal-temp Split:-10 °C ~60 °C
Ambient Temperature	-10°C-50°C
Ambient Humidity	0-95 % RH, non-condensing
Allowable Viscosity	<300CST(mm²/s)
Cable Length	Output & transducer cable each 2 m (extendable up to 20 m)

— Dimension Drawing



Host Dimensions



Sensor Dimensions

Pipe-connection Split-body Ultrasonic Flowmeter



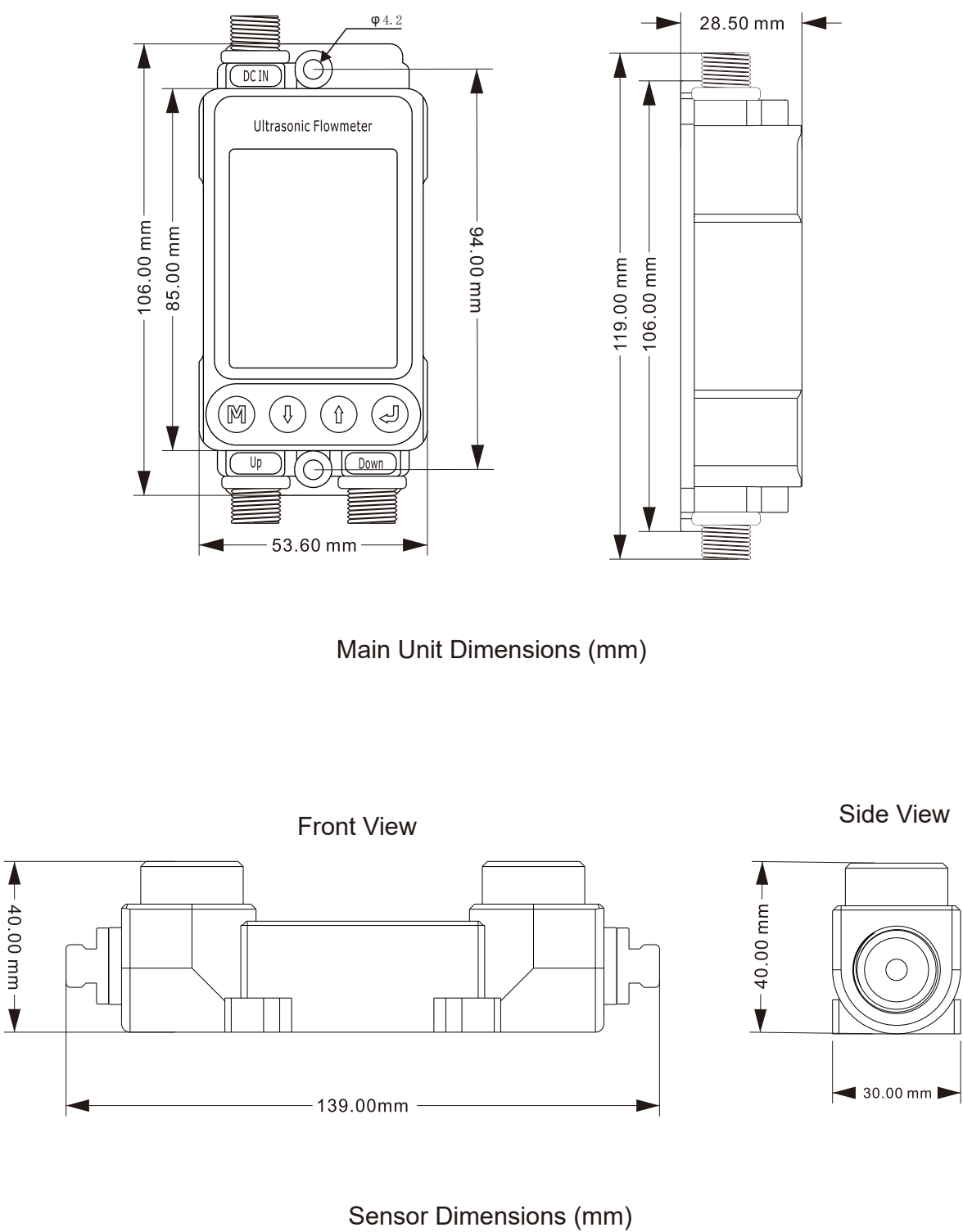
— Features

- Advanced measurement chip (20 ps time resolution)
- 9 display screens;
200-s /200-min flow trend curve; 24-h consumption bar-chart;
24-h real-time temperature bar-chart
- 2.4-inch IPS-LCD; clear reading for date / signal / instantaneous /
total volume under low-light condition
- Drop-down-list menu; four tactile keys; multi-language(S-CH / T-CH / EN)

— Specifications

Item	Specifications
Measuring Accuracy	±1.0%(0.3m/s-5.0m/s)
Flow Velocity Range	0.1m/s-10.0m/s
Linearity	±1.0%(0.3m/s-5.0m/s)
Repeatability	0.4%
Response Time	50ms
Display	2.4-inch 320×240 IPS-LCD, four-way rotatable
Menu Language	S-CH / T-CH / EN
Display Units	Metric & Imperial optional: m³/h, LPM, ml/min, GPM, LPH; Factory default: ml/min
Displayed Data	Instantaneous flow, instantaneous velocity, net total, batch total, daily max / min, daily-monthly-yearly total
Totalizer	7-digit flow totalizer
Total Data Logging	10-year / 64-month / 64-day storage
Operation Keys	4 tactile push-buttons
Calendar Battery	CR1220
Power Supply	24VDC@3W
Analog Output	4-20 mA, max. load 600 Ω
Communication	RS485, Modbus RTU protocol supported
Alarm Output	OCT upper/lower limit alarm, pulse output (optional)
Relay Output	Optional: 30 VDC @1 A, max. switching frequency <2 Hz
Measurable Media	Water, aqueous solutions, chemical reagents (impurity content <4%)
Ingress Protection	IP65
Installation Type	Split-type
Pipe Outer Diameter	φ3-φ12.7
Wetted Material	UPVC
Medium Temp.	-10°C~60°C
Ambient Temperature	-10°C-50°C
Ambient Humidity	0-95 % RH, non-condensing
Allowable Viscosity	<300CST(mm²/s)
Cable Length	Output & transducer cable each 2 m (extendable up to 20 m)
Dielectric Strength	0.3MPa

— Dimension Drawing



Note: This product series comes in different specifications, but all have the same external dimensions.

Split-body Normal-temperature Ultrasonic Flowmeter



— Features

- Advanced measuring chip (time resolution 50 ps)
- Built-in magnet auto-clamping; installation-to-measurement completes within 2-3 minutes
- 4-line OLED display; readable under dim environment; flow-temperature bar-chart
- Drop-down-menu UI; four tactile keys; multi-language switch

— Specifications

Item	Specifications
Measuring Accuracy	±2.0%(0.3m/s-5.0m/s)
Flow Velocity Range	0.1m/s-5.0m/s
Linearity	±2.0%(0.3m/s-5.0m/s)
Repeatability	0.8%
Response Time	500ms
Display	1.3-inch 128×64 OLED, reversible rotation
Menu Language	EN
Display Units	Metric & Imperial optional: m³/h, LPM, ml/min, GPM, LPH; Factory default: m³/h
Displayed Data	Instantaneous flow, instantaneous velocity, net total, batch total, daily max / min, daily-monthly-yearly total
Totalizer	7-digit flow totalizer
Total Data Logging	10-year / 64-month / 64-day storage
Operation Keys	4 tactile push-buttons
Calendar Battery	CR1220
Power Supply	24VDC@3W
Analog Output	4-20 mA, max. load 600 Ω
Communication	RS485, Modbus RTU protocol supported
Alarm Output	OCT upper/lower limit alarm, pulse output (optional)
Relay Output	Optional: 30 VDC @1 A, max. switching frequency <2 Hz
Measurable Media	Water, aqueous solutions, chemical reagents (impurity content <4%)
Ingress Protection	IP54/IP65
Installation Type	Clamp-on Split-body
Pipe Outer Diameter	OD9.53-OD220 (DN6-DN200)
Wetted Material	Non-contact
Medium Temp.	-10 °C~70°C
Ambient Temperature	-10°C-50°C
Ambient Humidity	0-95 % RH, non-condensing
Allowable Viscosity	<300CST(mm²/s)
Cable Length	Output & transducer cable each 2 m (extendable up to 20 m)

Split-body Normal-temp Anti-corrosion Ultrasonic Flowmeter



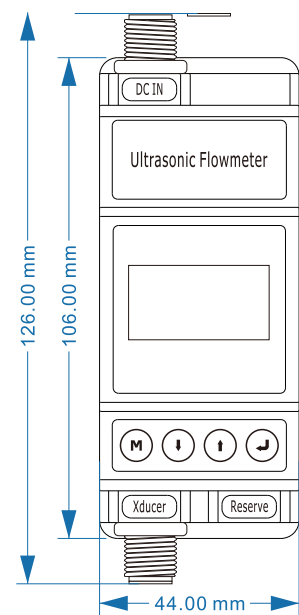
— Features

- Advanced built-in measuring chip
- Built-in-magnet auto-clamping; full installation within 2-3 minutes
- 4-line OLED display; clear reading under low-light; flow-temperature bar-chart visualization
- Drop-down-list menu; four tactile keys; multi-language switching

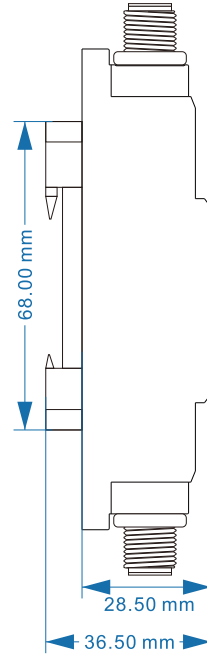
— Specifications

Item	Specifications
Measuring Accuracy	±2.0%(0.3m/s-5.0m/s)
Flow Velocity Range	0.1m/s-5.0m/s
Linearity	±2.0%(0.3m/s-5.0m/s)
Repeatability	0.8%
Response Time	500ms
Display	1.3-inch 128×64 OLED, reversible rotation
Menu Language	EN
Display Units	Metric & Imperial optional: m³/h, LPM, ml/min, GPM, LPH; Factory default: m³/h
Displayed Data	Instantaneous flow, instantaneous velocity, net total, batch total, daily max / min, daily-monthly-yearly total
Totalizer	7-digit flow totalizer
Total Data Logging	10-year / 64-month / 64-day storage
Operation Keys	4 tactile push-buttons
Calendar Battery	CR1220
Power Supply	24VDC@3W
Analog Output	4-20 mA, max. load 600 Ω
Communication	RS485, Modbus RTU protocol supported
Alarm Output	OCT upper/lower limit alarm, pulse output (optional)
Relay Output	Optional: 30 VDC @1 A, max. switching frequency <2 Hz
Measurable Media	Water, aqueous solutions, chemical reagents (impurity content <4%)
Ingress Protection	IP54/IP65
Installation Type	Clamp-on Split-body
Pipe Outer Diameter	OD9.53-OD220 (DN6-DN200)
Wetted Material	Non-contact
Medium Temp.	Anti-corr. Split:-10 °C~70°C
Ambient Temperature	-10°C-50°C
Ambient Humidity	0-95 % RH, non-condensing
Allowable Viscosity	<300CST(mm²/s)
Cable Length	Output & transducer cable each 2 m (extendable up to 20 m)

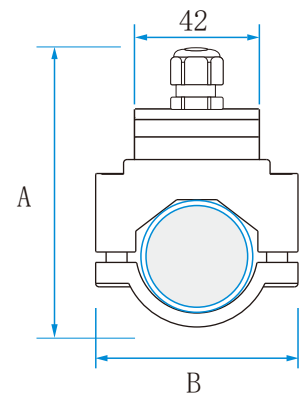
— Dimension Drawing



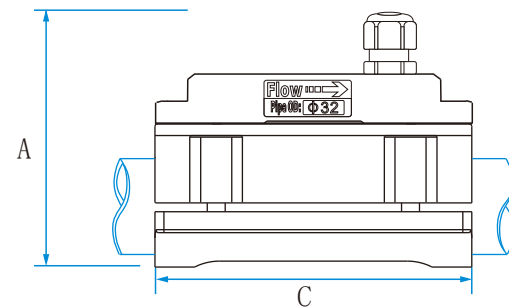
Host (Front)



Host (Side View)



End View (Top-and-Bottom Clamping Type)



Side View (Top-and-Bottom Clamp Type)

Split-body High-temp Anti-corrosion Ultrasonic Flowmeter



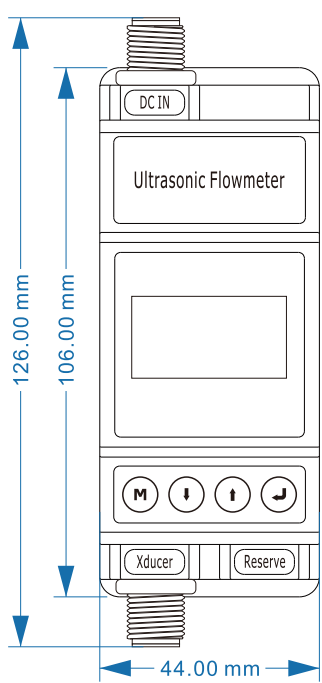
— Features

- Advanced measuring chip
- Built-in-magnet auto-clamping;
installation-to-measurement done in 2-3 minutes
- 4-line OLED display;
readable under dim-light environment; flow-temperature bar-chart
- Drop-down-list menu;
four tactile keys; multi-language(S-CH / T-CH / EN)

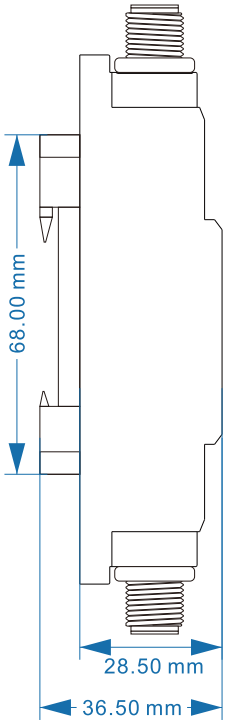
— Specifications

Item	Specifications
Measuring Accuracy	±2.0%(0.3m/s-5.0m/s)
Flow Velocity Range	0.1m/s-5.0m/s
Linearity	±2.0%(0.3m/s-5.0m/s)
Repeatability	0.8%
Response Time	500ms
Display	1.3-inch 128×64 OLED, reversible rotation
Menu Language	EN
Display Units	Metric & Imperial optional: m³/h, LPM, ml/min, GPM, LPH; Factory default: m³/h
Displayed Data	Instantaneous flow, instantaneous velocity, net total, batch total, daily max / min, daily-monthly-yearly total
Totalizer	7-digit flow totalizer
Total Data Logging	10-year / 64-month / 64-day storage
Operation Keys	4 tactile push-buttons
Calendar Battery	CR1220
Power Supply	24VDC@3W
Analog Output	4-20 mA, max. load 600 Ω
Communication	RS485, Modbus RTU protocol supported
Alarm Output	OCT upper/lower limit alarm, pulse output (optional)
Relay Output	Optional: 30 VDC @1 A, max. switching frequency <2 Hz
Measurable Media	Water, aqueous solutions, chemical reagents (impurity content <4%)
Ingress Protection	IP54/IP65
Installation Type	Clamp-on Split-body
Pipe Outer Diameter	OD9.53-OD220 (DN6-DN200)
Wetted Material	Non-contact
Medium Temp.	High-temp Anti-corr.: -10 °C~120°C
Ambient Temperature	-10°C-50°C
Ambient Humidity	0-95 % RH, non-condensing
Allowable Viscosity	<300CST(mm²/s)
Cable Length	Output & transducer cable each 2 m (extendable up to 20 m)

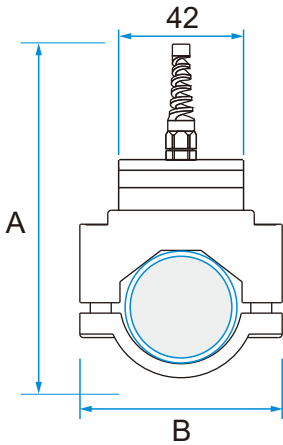
— Dimension Drawing



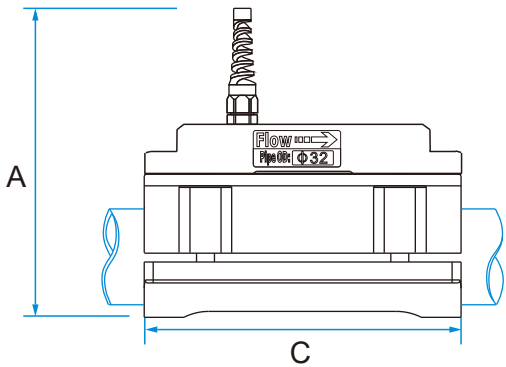
Host (Front)



Host (Side View)

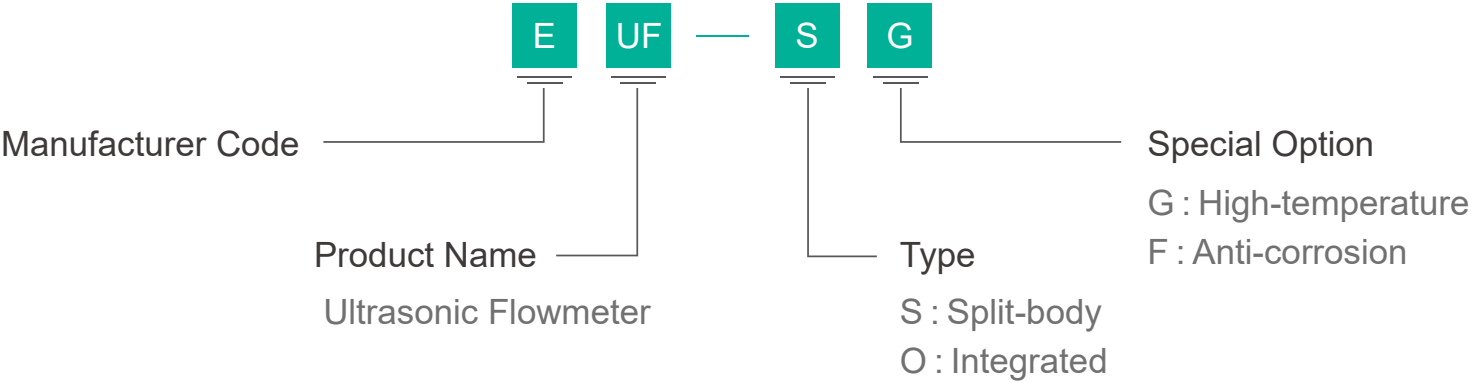


End View (Top-and-Bottom Clamping Type)

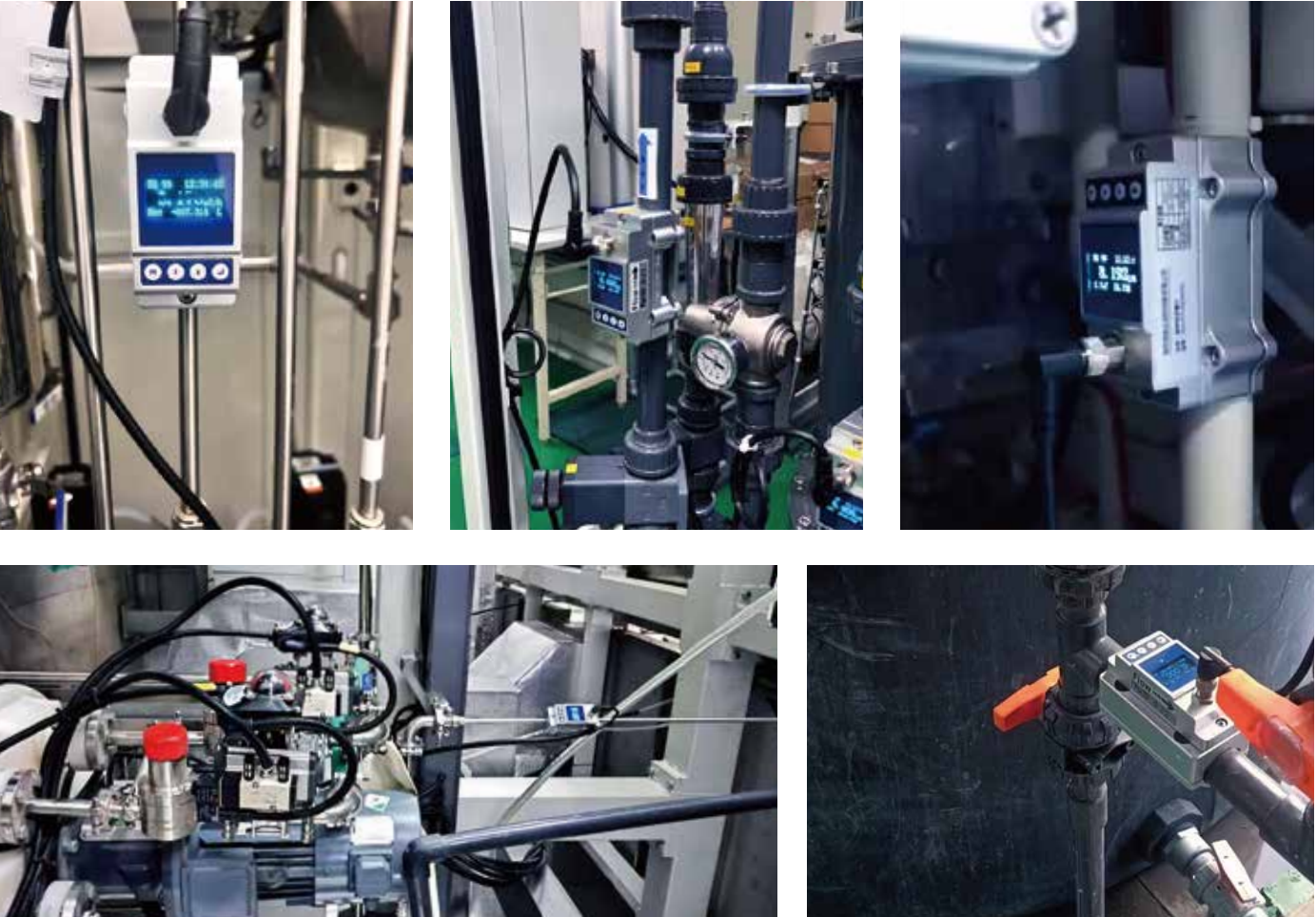


Side View (Top-and-Bottom Clamp Type)

— Model Coding Rule



— Use Cases



APPLICATIONS CASES

Semiconductor Industry



Food & Beverage



Flat-glass Washing



Pharmaceutical Batching



Beverage Industry



Fine-chemical Industry



COMPANY PROFILE

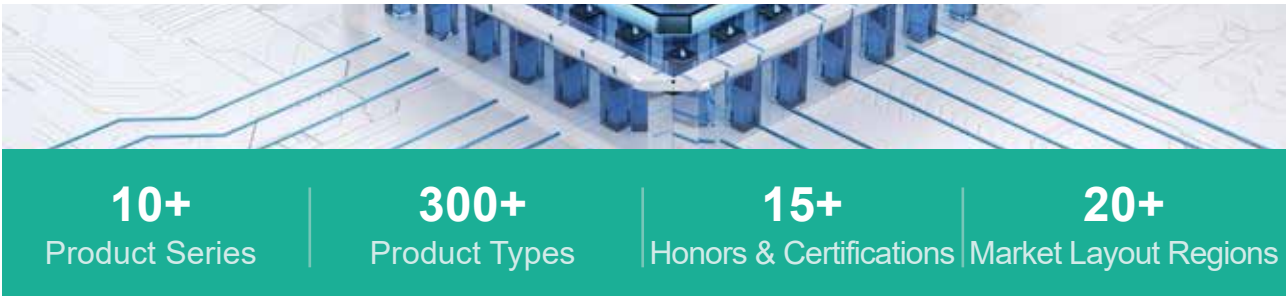


ELEsenson focuses on R&D, manufacturing and sales of sensors. We have a high-caliber, innovative technical team. Pursuing continuous technical improvement, we deliver high-performance, reliable sensor products for customers.

Our broad product portfolio covers multiple industries including industrial automation, smart home and automotive electronics. Our products are well-received for precise measurement, stable performance and outstanding durability.

During production, strict quality-control procedures guarantee premium quality for every unit leaving our factory. We maintain close cooperation with customers, deeply understanding requirements and delivering customized solutions for special-scenario demands.

ELEsenson regards innovation as core driving force. Continuous investment in R&D and product upgrades. With professional teams, premium products and thoughtful service, Zhejiang ELEsenson Sensors has built solid reputation in the industry, contributing technical strength to the advancement of multiple sectors.



■ Corporate Culture

— Vision

Uphold conviction, reach new heights of sensor-technology development.
Build a globally-leading sensor enterprise and lead industry progress through technological innovation.

— Mission

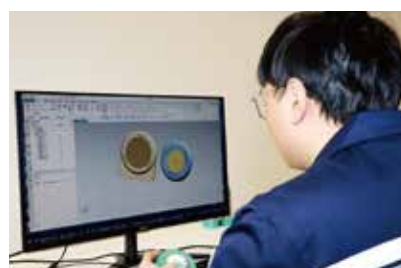
Drive development through innovation, win trust by quality.
Supply precise,stable,durable and reliable sensor products plus customized solutions for industrial automation, rail transit, automotive electronics and other industries.

— Core Values

Customer-Oriented, Integrity-Based, Innovation-Driven, Quality-First.
We are customer-demand oriented, operate with integrity, pursue innovation and strive for superior product & service quality.

CORE ADVANTAGES

- 
Professional & Efficient Team Experienced and skilled personnel providing high-quality service & technical support.
- 
Strong R&D Capability Advanced R&D equipment & specialist team to develop innovative, competitive products.
- 
Complete After-Sales Support System Timely response to customer requests, comprehensive technical support & solutions to maximize customer satisfaction.



HONORS AND QUALIFICATIONS



Brief Product Catalog | English Version | Issue 1, 2025

Contents subject to update without prior notice. This catalog shall not constitute any express or implied warranty by Zhejiang ELEsenson Sensors Co., Ltd.

Revised versions are available for download from our official website

<https://www.elesenson.net>