The selection is detailed on page 13

# FU30 Ultrasonic Flowmeter

# Working principle

Ultrasonic flowmeter is based on the principle of time difference method to measure. This requires two opposing ultrasonic transducers, which act as transmitters and receivers respectively. Sound waves are emitted from both transducers at the same time, speeding up sound waves downstream and slowing down sound waves upstream. The volume flow rate can be calculated by measuring the time difference between the two sound waves and the average flow rate. By using multi-channel ultrasonic measurement, the deviation of the fluid flow pattern can be compensated.



## **Product description**

Three channels enable efficient measurement in a variety of flow modes, using innovative electronic movements and digital signal processors (DSPS) to enhance product performance. Depending on API2540 or customer specific requirements, pressure and temperature inputs can be selected to calculate standard volume flow or mass flow.Ultrasonic flowmeters can measure a variety of liquid media, whether aggressive or corrosive.The measurement channel can provide very high precision and highly repeatable measurements regardless of the viscosity of the medium, which is a huge breakthrough.Our equipment is found in a wide range of industrial applications. Whether measuring cooling and softening water in power plants, or liquid hydrocarbons in industry, you can have absolute confidence in the performance of Rodwig ultrasonic flowmeters in any situation.

23.368

#### **Functional characteristics**

High accuracy and repeatability, independent of the properties of the measuring medium, such as viscosity, temperature, density and conductivity.No moving parts, no protruding elements in the pipelineNo wear parts, no maintenance, so the subsequent operating costs are very lowExcellent long-term stability without re-calibrationHigh reliability due to multiple sets of redundant channels

## **Product application**

Petroleum/Petrochemical /Chemical Industry

Hot and cold water

Heating Ventilation and Air Conditioning (HVAC)

Power plant

semiconductor



ignal converter	A1						
leasurement accuracy	Mono 1.2%						
	Two-channel 1.5%						
	Three channel 1.0%						
Process condition	liquid						
	Maximum 2% gas content						
exportation	Current, pulse/frequency/state						
nput	Switching value						
	Current (temperature, pressure)						
communication	HART, Modbus, Profibus, FF						
Power supply	100240V AC						
Class of protection	24V AC/DC						
Monotype (C)	-						
Subtype (F)	IP67; NEMA6						
Wall Hanging Type (W)	-						
Measuring sensor	A2						
Process connection							
EN 1092-1	caliberDN200DN5000;						
	Maximum PN16						
lemperature range							
Process temperature	-45150°C						
Ambient temperature	-40+65°C						
Vaterial							
Sensor	Stainless steel						
Class of protection							
Measuring sensor	Standard IP67, optional IP68						
Authentication							
anti-explosion	ATEX						

#### FU30-A: Plug-in ultrasonic flowmeter

Optional online plug welding ultrasonic flowmeter, no need to break the flow during installation, the transducer can be plugged online, no need to break the flow.

The FU30-A consists of sensors and transducers. Available in mono, dual and triple channels

#### Advantage

No additional pressure loss in open flow parts of pipeline section

The measurement accuracy is independent of the characteristics of the medium, such as conductivity, density, viscosity, temperature, etc

Easy to install, from inside or outside the pipe can be installed

maintenance-free

Very low energy consumption

Operating freight costs are extremely low

#### **Converter characteristics**

Large local LCD display with button operation Digital signal processing system Simple operation Current, pulse, frequency and status output Very low energy consumption Can display instantaneous flow, cumulative flow, sound speed and other information





Universal three-channel ins	trument/on-line liquid measurement-FU30-B				
Signal converter	B1				
Measurement accuracy	±2.5% of the measured value				
Process condition	liquid				
exportation	Current, pulse, state				
input	Switching value				
	Current (for temperature and pressure input				
communication	HART, Modbus, Profibus, FF				
Power supply	100230V AC				
	24V AC/DC				
Class of protection					
<ul> <li>Monotype (C)</li> </ul>	IP66/67; NEMA4X				
<ul> <li>Subtype (F)</li> </ul>	IP65; NEMA4X				
Measuring sensor	B2				
Process connection					
■ EN 1092-1	caliberDN25DN3000;				
	PN10100				
Temperature range					
Process temperature	-25+20°C				
Ambient temperature (including converters)	-40+65°C				
Material					
Measuring tube, flange	Carbon steel/stainless steel/Hastelloy/duplex steel				
Class of protection					
Measuring sensor	IP67, selectable IP68				
Authentication					
<ul> <li>anti-explosion</li> </ul>	ATEX				

#### FU30-B: Universal ultrasonic flowmeter

Versatile, all-round liquid measurement for all industrial processes

#### **Product description**

The FU30-B flowmeter is a unique, three-channel, inline ultrasonic flowmeter designed specifically for uniform conductive and non-conductive liquid measurement, ensuring high accuracy and repeatability over time. Rodeweig is a leading supplier of in-line liquid ultrasonic flowmeters with robust construction and high measurement accuracy, thus having the largest installed base and a wide range of applications.

#### **Product characteristics**

Suitable for both conductive and non-conductive media

Accurate bidirectional flow measurement

Dedicated electronic movements and innovative digital signal

processing technology provide reliable and stable measurements

Can display instantaneous flow, cumulative flow, sound speed and other information

#### Advantage

#### Easy to install

FU30-Blt is a lightweight flowmeter that is easy to install and operate and does not require additional accessories such as filters, supports, etc.

#### Low operation and maintenance costs

The FU30-B has no protruding and moving parts, no pressure loss or wear, and is extremely energy efficient. Flow meters do not require regular maintenance, so they are installed in difficult to access locations.

#### High cost performance

The total cost of the FU30-B measurement installation is much lower than that of other principle flowmeters. In addition, a universal flow meter that can be used for any application minimizes your engineering and inventory costs.

#### Accurate/reliable

Each unit has passed strict actual flow calibration before leaving the factory, the calibration device has passed NMI international certification, and the maximum calibrating caliber can reach DN3000.





Signal converter	C1						
Measurement accuracy	Standard ±0.5%						
	Optional ±0.3%						
Process condition	Liquid, maximum viscosity 1000cSt						
	Maximum 5% solid content						
	Maximum 2% gas content						
exportation	Current, pulse, state						
input	Switching value						
communication	HART, Modbus, Profibus, FF						
Power supply	100230V AC						
	24V AC/DC						
Class of protection							
<ul> <li>Monotype (C)</li> </ul>	IP66/67; NEMA4X						
<ul> <li>Subtype (F)</li> </ul>	IP66/67; NEMA4X						
Measuring sensor	C2						
Process connection							
EN 1092-1	caliberDN25DN3000;						
	PN10100						
ASME B16.5	1120"						
	CL1501500						
Temperature range							
Process temperature	-200+250°C						
Ambient temperature	-40+65°C						
Material							
<ul> <li>Measuring tube, flange</li> </ul>	Carbon steel/stainless steel/Hastelloy/duplex stee						
Class of protection							
Measuring sensor	Standard IP67, optional IP68						
authentication							
<ul> <li>anti-explosion</li> </ul>	ATEX						

## FU30-C: Universal ultrasonic flowmeter

Versatile, all-round liquid measurement for all industrial processes



#### **Product description**

The FU30-C flowmeter is a unique, three-channel, inline ultrasonic flowmeter. Specially designed for uniform conductive and non-conductive liquid measurement, high accuracy and repeatability over long periods of time. Rodeweig is a leading supplier of in-line liquid ultrasonic flowmeters with robust construction and high measurement accuracy, thus having the largest installed base and a wide range of applications

#### **Product characteristics**

Suitable for conductive and non-conductive, low and high viscosity and media from -200  $^{\circ}$  C to 250  $^{\circ}$  C

Accurate bidirectional flow measurement

Advanced signal converter with all input and output, HARTR7, FF bus, etc

Can display instantaneous flow, cumulative flow, sound speed and other information

#### **Excellent diagnostic capabilities**

The flowmeter provides comprehensive selfinspection, including internal circuitry, sensor fault information, and important information about process conditions. All NAMURNE107 compliant, these advanced diagnostic functions ensure long-term reliability and accuracy of the measurement process

#### Sound velocity measurement function

Each channel can measure the speed of sound, and this feature is standard at no additional cost. For example, this function can be used to provide information on contaminants in liquids or changes in process conditions.

#### Advantage

Superior signal converter with a full range of input/output and communication protocols

Follow the diagnostic capabilities of NAMURNE107

Improved user interface: optically sensitive keys and touch keys

All welded structure, no wear, no maintenance

Full diameter, sensor tube free flow parts, no pressure loss, no moving parts

Accurate bidirectional flow measurement

Continuous measurement of three channels and measurement from almost zero flow

Multi-purpose, all-round, suitable for single-phase liquids





(for extreme process con	n temperature meter -FU30-S ditions)					
Signal converter	S1					
Measurement accuracy	±0.5% of the measured value					
	liquid					
Process condition	Maximum 5% solid content					
	Maximum 2% gas content					
exportation	Current, pulse, state					
input	Switching value					
	Current (temperature, pressure)					
communication	HART, Modbus, Profibus, FF					
Power supply	100240V AC					
	24V AC/DC					
Class of protection						
<ul> <li>Monotype (C)</li> </ul>	-					
Subtype (F)	IP66/67; NEMA6					
<ul> <li>Wall Hanging Type (W)</li> </ul>	-					
Measuring sensor	S2					
Process connection						
EN 1092-1	caliber DN25DN1000;					
	Max PN16					
ASME B16.5	DN25DN300/150lbs900lbs					
	DN350DN600/600lbs					
Temperature range						
Process temperature	-45+600°C					
<ul> <li>Ambient temperature</li> </ul>	-40+70°C					
Material						
<ul> <li>Measuring pipe material, flange</li> </ul>	Carbon steel/stainless steel/duplex steel					
Class of protection						
<ul> <li>Measuring sensor</li> </ul>	Standard IP67, optional IP68					
Authentication						
Anti-explosion	ATEX					

#### FU30-S: Rugged two-channel ultrasonic flowmeter

Reliable solution for high temperature liquids

#### **Product description**

The FU30-S is a dual-channel ultrasonic flowmeter for measuring crude oil and a wide range of refined products, capable of operating under extreme conditions (high temperature/pressure). The FU30-S provides a unique solution for the accurate measurement of synthetic thermal oils at extreme temperatures (600°C) or rapid temperature changes.

The FU30-S has an industrially robust construction, and operation and maintenance costs can be minimized thanks to a reliable all-welded construction without any moving parts, so wear does not occur.

The FU30-S consists of a flow sensor and a signal converter. The signal converter is installed in a split type near the high temperature flow sensor.

#### **Product characteristics**

Accuracy, repeatability and long-term stability Efficient waveguide beam technology Flow measurement under harsh conditions

#### Advantage

It is mainly measured at high temperatures (up to 600°C)

Excellent long-term stability and high reliability No moving or turbulent parts

Rugged construction, resistant to corrosion and abrasion media

Two sets of parallel channels, measurements independent of Reynolds number

Wide selection of materials, sizes and pressure levels





Flexible external clamp m (External clamp device fo					
Signal converter	M1				
Measurement accuracy	±1.0% of the measured value				
	liquid				
Process condition	Maximum 5% solid content				
	Maximum 2% gas content				
Exportation	Current, pulse, state				
Input	Switching value				
mput	Current (temperature, pressure)				
Power supply	85250V AC				
Power suppry	20.526V AC/DC				
Class of protection					
Monotype (C)	-				
Fractal type (F)	IP66/67; NEMA4, 4X, 6				
<ul> <li>Wall hanging type (W)</li> </ul>	IP65; NEMA4, 4X				
Measuring sensor	M2				
Process connection					
EN 1092-1	caliber DN25DN4000;				
ASME B16.5	1/2160"				
Temperature range					
Process temperature	-45+200°C (Higher than 200°C please consul				
Ambient temperature	-40+60°C				
Material					
<ul> <li>Measuring pipe material, flange</li> </ul>	Carbon steel/stainless steel/duplex steel				
Class of protection					
Measuring sensor	Standard IP67, optional IP68				
authentication					
anti-explosion	ATEX				

# FU30-M: External clamp type ultrasonic flowmeter



#### **Product description**

The FU30-M is a symbol of continuity and long-term reliability, enabling flow measurements anywhere and starting up very quickly. The new FU30-M external clamp flowmeter measures liquids. Its rugged industrial construction and re-lubrication concept provide revolutionary solutions for easy installation and use. The flowmeter can be installed on the outside of the pipe to measure the flow of liquid in the pipe.

In addition, the clamp-on flowmeter is composed of one or two FU30-M external clamp-on sensors combined with an ultrasonic signal converter. In addition, the overall function of the clamp-type flowmeter is to continuously measure the actual volume flow rate, mass flow rate, velocity, sonic speed, gain, signal-to-noise ratio and diagnostic value, etc., which can display instantaneous flow rate, cumulative flow rate, sound speed and other information.

#### **Product application**

Chemical addition Through process control Cooling water circuit A wide variety of refined hydrocarbons Potable water Deionized water and demineralized water Public health flow measurement Purified water

#### **Product characteristics**

Minimum uncertainty Optimal reliability Minimal maintenance Efficient re-lubrication concept Easy sensor installation Installation wizard All-in-one system





Battery powered portabl	•					
Signal converter	P1					
Measurement accuracy	±1.0% of the measured value					
	liquid					
Process condition	Maximum 5% solid content					
	Maximum 2% gas content					
Exportation	Current, pulse, state					
Input	Two way 0{4} 20mA current					
Communication	USB interface					
Power supply	Battery powered					
Class of protection						
<ul> <li>Monotype (C)</li> </ul>	-					
<ul> <li>Subtype (F)</li> </ul>	IP65; NEMA4					
Wall Hanging Type (W)						
Measuring sensor	P2					
Process connection						
EN 1092-1	caliberDN15DN4000;					
ASME B16.5	1/2160"					
Temperature range						
Process temperature	-45+200°C (Higher than 200°C please consult					
Ambient temperature (including converters)	-40+60°C					
Material						
<ul> <li>Measuring pipe material, flange</li> </ul>	The sensor track is aluminum or stainless stee					
Class of protection						
Measuring sensor	IP67					
authentication						
anti-explosion	ATEX					

## FU30-P: Portable external clamp ultrasonic flowmeter



#### Product description

The new FU30-LSD flowmeter combines portable, simple, intuitive and fast liquid measurement with high-precision and reliable ultrasonic technology. Just attach the sensor to the pipe and connect the small converter to start reading. Storing measurement data is also very convenient. The data is stored on a USB memory card and can be transferred to an external evaluation device.

Its portability and flexibility make the FU30-P an ideal solution for flow measurement in any industrial sector and under a variety of application conditions.

# Product application

Fast and easy sensor Install a comprehensive user interface Easily transfer data to your computer 14 hours battery life Energy measurement function

## **Product characteristics**

Debugging of HVAC system Check on-line flowmeter Check pump performance Temporary replacement of a faulty flowmeter Solve general traffic related problems

## Advantage

User-friendly interface with full color graphic display and full keyboard

Fast and easy transfer of recorded data to computer via USB interface

Sensor: Stable, fast installation, high performance can display instantaneous flow, cumulative flow, sound speed and other information





Signal converter	T1				
Measurement accura	23"; ±1.5%				
	424"; ±1%				
Process condition	liquid				
Exportation	Current, pulse, state				
Input	Two way four 20mA current				
	Switching value				
Communication	HART, Modbus, Profibus, FF				
Power supply	85250V AC; 1131V DC				
	20.526V AC/DC				
Class of protection					
Monotype (C)	IP66/67; NEMA4, 4X, 6				
<ul> <li>Subtype (F)</li> </ul>	IP66/67; NEMA4, 4X, 6				
<ul> <li>Wall Hanging Type ('</li> </ul>	W) IP65; NEMA4, 4X				
Measuring sensor	Τ2				
Process connection					
EN 1092-1	caliber DN50DN4000;				
	PN1040				
ASME B16.5	224"				
	CL150900				
Temperature range					
<ul> <li>Process temperature</li> </ul>	-45+180°C				
Ambient temperature (including converters)	-40+65°C				
Material					
<ul> <li>Measuring pipe material, fla</li> </ul>	Stainless steel/carbon steel/Hastelloy/duplex steel				
Class of protection					
<ul> <li>Measuring sensor</li> </ul>	IP67				
authentication					
<ul> <li>anti-explosion</li> </ul>	ATEX				

#### FU30-T: Gas ultrasonic flowmeter

#### **Product description**

he FU30-T is an ultrasonic measurement system focused on process and gas flow applications. Compared to conventional gas flow meters, the FU30-T does not have many limitations, such as periodic recalibration, routine maintenance, pressure loss and limited flow range.

FU30-T has the advantages of ultrasonic measurement, such as efficient, reliable and easy to use, can display instantaneous flow, cumulative flow, sound velocity and other information.

#### **Product application**

General process control Hydrocarbon gases in petrochemical plants Process gases from chemical plants Natural gas production Consumption and use of natural gas The use of fuel gases Air flow

## **Product characteristics**

Wide flow range

The measurement is independent of gas density and applies to a wide range of gas compositions

maintenance-free

No recalibration required

Conversion to a standard state is integrated through pressure and temperature inputs

Measuring tube has no moving parts, no pressure loss



Signal convertor	nigh temperature gas measurement) W1					
Signal converter						
Measurement accuracy	4"; ±1.5%					
	624"; ±1%					
Process condition	Superheated steam and high-temperature gases					
Exportation	Current, pulse, state					
Input	Switching value					
Communication	HART, Modbus, FF					
Power supply	100230V AC					
	24V AC/DC					
Class of protection						
Monotype (C)	-					
Subtype (F)	IP65; NEMA4X/6					
Wall Hanging Type (W)	-					
Measuring sensor	W2					
Process connection						
EN 1092-1	caliber DN100DN600/Or no flange welding					
	PN16160					
ASME B16.5	224"Or no flange welding					
	CL1502500					
Temperature range						
Process temperature	-25+620°C (Higher temperatures are available for special consultation)					
Ambient temperature (including converters)	-40+65°C					
Material						
Measuring pipe material, flange	Carbon steel/high temperature steel special consultation					
Class of protection						
Measuring sensor	IP67					
authentication						
anti-explosion	ATEX					

#### FU30-W: Steam ultrasonic flowmeter

#### **Product description**

The FU30-W is the optimal solution for measuring steam

The FU30-W measures accurately without pressure loss, has a very wide measurement range, and does not require re-calibration, providing excellent longterm stability. The standard self-diagnosis function allows for self-judgment identification without the need for the operator to pay attention to the meter at all times.

With the input of temperature and pressure values, the converter can calculate mass flow and calorific value in addition to volume flow without the need for an additional flow computer. Can display instantaneous flow, cumulative flow, sound speed and other information.

#### **Product application**

Power plant/chemical/petrochemical, etc

Use steam distribution

The handover of steam trade

#### **Product characteristics**

Excellent long-term stability

No recalibration required

maintenance-free

The self-diagnostic function ensures correct operation and provides support for verification

According to the requirements of IAPWS-IF97, the calculation function of mass flow and calorific value is integrated, with pressure and temperature value input



Signal converter	V1					
Measurement accuracy	±0.2% of the measured value					
	(When 2000 < RE Reynolds number < 50000)					
	±0.15% of the measured value					
	(When RE Reynolds number > 50000)					
Process condition	Single medium					
Exportation	Current, pulse, state					
Input	-					
Communication	-					
Power supply	100240V AC					
	24V AC/DC					
Class of protection						
Monotype (C)	IP67; NEMA6					
<ul> <li>Subtype (F)</li> </ul>	-					
<ul> <li>Wall Hanging Type (W)</li> </ul>	-					
Measuring sensor	V2					
Process connection						
EN 1092-1	-					
ASME B16.5	240"					
	CL1502500					
Temperature range						
<ul> <li>Process temperature</li> </ul>	-200+250°C					
Ambient temperature (including converters)	-40+70°C					
Material						
<ul> <li>Measuring pipe material, flange</li> </ul>	Stainless steel					
Class of protection						
<ul> <li>Measuring sensor</li> </ul>	IP67					
authentication						
<ul> <li>anti-explosion</li> </ul>	ATEX					

#### FU30-V: Cost-effective three-channel ultrasonic flowmeter Product description

The FU30-V has decisive advantages that traditional mechanical flowmeters cannot match in trade handover applications. Because the pipes are barrierfree and have no moving parts, there is no wear and pressure loss.

The advantages offered by the product are maintenance-free operation and simplified meter operation configuration (smaller pump flow, no filter required). Therefore, both in investment costs (CAPEX) and operating costs (OPEX), considerable savings are achieved.

## **Product application**

Oil and gas refinery Petrochemical industry

## **Product characteristics**

Replace conventional rotor or differential pressure flowmeter, cost-effective Large dynamic range Light weight, compact installation structure **Bidirectional flow measurement** Easy integration with proven (existing) flow meters Integrated troubleshooting capabilities

## Advantage

Excellent long-term stability and high reliability maintenance-free No insertion, no moving parts, no pressure loss and wear

OIML R-117 and API compliant





Signal converter	X1					
Measurement accuracy	±0.5% of the measured value					
Process condition	liquid					
	Maximum 5% solid content					
	Maximum 1% gas content					
Exportation	Current, pulse, state					
Input	Switching value					
	Current (temperature, pressure)					
Communication	HART					
Power supply	100240V AC					
	24V AC/DC					
Class of protection						
<ul> <li>Monotype (C)</li> </ul>	IP67; NEMA6					
<ul> <li>Subtype (F)</li> </ul>	IP65; NEMA4, 4x					
	IP66/67; NEMA4, 6					
Wall Hanging Type (W)	-					
Measuring sensor	X2					
Process connection						
EN 1092-1	DN25DN1000					
ASME B16.5	112"					
	CL150					
Temperature range						
Process temperature	-25+500°C					
Ambient temperature (including converters)	-40+65°C					
Material						
Measuring pipe material, flange	Stainless steel, carbon steel, duplex stee					
Class of protection						
<ul> <li>Measuring sensor</li> </ul>	IP65					
	IP66/67					
Authentication						

## FU30-X: Rugged two-channel ultrasonic flowmeter

#### **Product description**

The FU30-X is a dual channel ultrasonic flowmeter for measuring crude oil and a variety of refined products. It is capable of accurately measuring synthetic heat transfer oils at extreme temperatures (500 ° C) or rapid temperature changes under extreme conditions (high temperature/high pressure). It also offers a unique solution.

The FU30-X has an industrially robust construction, and operation and maintenance costs can be minimized thanks to a reliable all-welded construction without any moving parts, so wear does not occur.

The FU30-X consists of a flow sensor and a signal converter. The signal converter is installed in a split type near the high temperature flow sensor.

## **Product application**

Oil and gas Refinery Petrochemical industry

#### **Product characteristics**

It is mainly measured at high temperatures (up to 500°C)

Excellent long-term stability and high reliability

No moving or turbulent parts

Rugged construction, resistant to corrosion and abrasion media

Two sets of parallel channels, measurements independent of Reynolds number

Wide selection of materials, sizes and pressure levels

#### Advantage

Accuracy, repeatability and long-term stability Efficient waveguide beam technology Flow measurement under harsh conditions

Can display instantaneous flow, cumulative flow, sound speed and other information



ignal converter	01					
leasurement accuracy	A: ±5% of the measured value					
	B: Mono ±1%; Two-channel ±0.7%; Three-channel ±0.5%					
rocess condition	liquid					
	Max. 0.2% gas content					
xportation	Current, pulse, state					
nput	Switching value					
	Current (temperature, pressure					
ommunication	HART, Modbus, Profibus, FF					
ower supply	100240V AC					
	24V AC/DC					
lass of protection						
Monotype (C)	-					
Subtype (F)	IP67; NEMA6					
Wall Hanging Type (W)	-					
leasuring sensor	02					
rocess connection						
EN 1092-1	DN400DN8000, Max 10bar					
ASME B16.5	DN100DN5000, Max 40bar					
	4200"					
emperature range						
Process temperature	-25+500°C					
Ambient temperature (including converters)	-25+60°C					
laterial						
Measuring pipe material, flange	Stainless steel					
lass of protection						
Measuring sensor	IP65/IP67/IP68 Selectable					
uthentication						
anti-explosion	ATEX					

## FU30-O-Open channel/welded ultrasonic flowmeter

#### **Product description**

A: Open channel ultrasonic flowmeter

B: Welded ultrasonic flowmeter

C: welded ultrasonic flowmeter, no need to break the flow during installation, the converter can be plugged and removed online, no need to break the flow.

#### **Product application**

Oil and gas refinery Petrochemical industry

#### **Product characteristics**

Large local LCD display with button operation Digital signal processing system Easy to operate Current, pulse, frequency and status output Very low energy consumption Can display instantaneous flow, cumulative flow, sound speed and other information Advantage

Pipe section open flow components

No additional pressure loss

The measurement accuracy is independent of the characteristics of the medium, such as conductivity, density, viscosity, temperature, etc

Easy to install from the inside or outside of the pipe/open channel

Maintenance-free

Very low energy consumption

Operating freight costs are extremely low





nge range	R( )	Plea	se not	e the ro	nnae						
2.Measure		A	Ultrasonic wave								
principle	ment	В		Static pressure type							
3 lr	3.Instrument		G		lar type						
	type			Hand							
					ide clar	np					
				J Plug-in							
			K Split clamping type								
	4.N	leasu	iring	Ν	DN25	5					
		erture		0	DN32						
				Р	DN40	)					
				Q	DN50	)					
				R	DN65	5					
				S	DN80	)					
				Z	DN10	0					
				U	DN12	25					
				V	DN15	_					
				W	DN20						
				X	DN25						
				Y	DN30						
				T() Other connection specifications							
		5	.Weir t	rough		A The Basher trough					
					B		trough	oir trou	ala		
			6	.Mater		C Self-made weir trough D Stainless steel					
				inducer	E		PVC				
						F		propyle	ne		
						T()		r mater			
				7	7.Working pow		G		220V AC 50Hz(90-245VAC 50Hz)		
					pply	power	Н			-36V DC)	
							1			wered 3.6V	
					8.0	8.Output		Ν	mA		
								0	4-20mA+HART		
								Р	Frequ	uency 1KHz	
								Q	Serio	al Communication (485)	
								R	4-20	4-20mA+ switching output	
								Х	4-20mA+FF bus		
								Υ	4-20	mA+PF bus	
						9.Applic	able char	nnel mm	S	> 200×250 15/210	
						> Width	evel range × height	e (mm)	U	> 250×300 15/240	
						h(min)/h	n(max)		V	> 300×600 30/330	
										> 450×800 30/450	



FU30	-Selectio	0-60t/h/	A	3	G	4	Q	5	A	6	D	/7	Н	8	Ν	9	S	10	G	/ 11	Р			
10.Crit	ical	G	0.5																					
submergence %		Н	0.6																					
11.Explosion-proof			Ν	Intrinsically safe explosion protection																				
	requirement			flameproof																				
			Р	There	is no																			

#### Instructions:

It means that the FU30 ultrasonic flowmeter has a measuring range of 0-60t/h, the measuring principle is ultrasonic, the instrument type is pipe segment, the measuring caliber is DN50, the Basher tank, the material is stainless steel, the working power supply is 24V DC, the output is 4-20mA, the applicable channel is > 200×250 15/210, the critical inundation degree is 0.5%, no explosion proof.



# **Product Certification**

Compliance and approval; Rodwig flow meters meet key standards and certifications for process measurement technology; To ensure the highest reliability in such settings;



