



APPLICATIONS

- Potable water supply.
- Hydroelectric plants.
- Wastewater Plants.
- Heating circuit.
- Pools and irrigation.
- Corrosive liquids.
- Food industry.
- Humidity.
- Leaks Control.
- Pressure network
- Many others.

KEY FEATURES

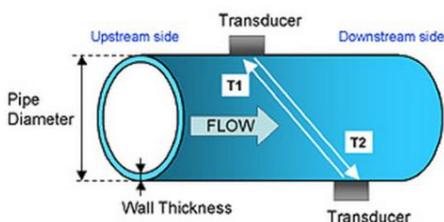
- Easy installation.
- Free of obstructions.
- No need pre filters.
- No moving parts.
- High accuracy at low flow rates.
- No need maintenance.
- No pressure loss
- No risk of leakage.
- Unaffected suspended particles.
- Wide range of diameters.

ACCESORIES

- Cabling of different lengths.
- Watertight connection box.
- Mounts to wall or mast.
- IP68 military-type connectors.
- Clamping flanges, etc..

July 2017

SP-200S/SC Ultrasonic Flowmeter Non invasive



Ultrasonic flowmeters are ideal for monitoring fluid flow **non invasive**.

They are installed in horizontal or vertical piping, in a quick manner and without cutting the pipe or supply disruptions.

Two transducers are attached by flanges to the outside of the pipe. These are connected to the **station sensors Smartyplanet** with electronic equipment previously configured.

It operates on the principle of transit time via a transmitter and an ultrasonic receiver measuring the difference between the transit time of two signals to traverse the same distance in opposite directions. If the fluid flow rate to be measured is zero, the times are equal, but when no flow time will be different, this time difference more knowledge about the geometry of the tube and the speed of sound in the liquid used to evaluate the fluid velocity its flow.



TYPES OF TRANSDUCERS						
Transducer		Model	Picture	Precision	Range measure	Range temp.
Transducer Clamp-on	Small	TS-1		±1%	DN15 - DN100mm	-30~90°C
	Medium	TM-1			DN50 - DN1000mm	-30~90°C
	Big	TL-1			DN300 - DN6000mm	-30~90°C
High temp Small transducer		HTS-1		±1%	DN15 - DN100	-40~160°C
High temp Medium transducer		HTM-1			DN50 - DN1000mm	-40~160°C
Insertion	TC-1 Standard				±0.5%	DN80 - DN6000mm
	TLC-2 Lengthen (For concrete pipes)			-40~90°C		
Section of the pipe	Type II			±0.5%	DN15 - 40mm	-40~160°C
	Section pipe				DN15 - 1000mm	
Platinum Resistance / Temperature Sensor		PT100			DN15 - 6000mm	-40~300°C

Installation conditions

It requires a straight section of pipe over 10 DN upstream and 5D downstream transducer.

If water pump is necessary above 30 DN straight section

It is recommended to place the transducers on the side of the pipe, never at the bottom or top.

It is necessary to know: the pipe diameter, the wall thickness of the pipe, fluid type and pipe material.

It is delivered configured and ready for assembly.

Controller module Flowmeter

Linearity: >5%

Repeatability : >0,2%

Precision : >1%

Wide measurement range : DN15mm a DN6000mm

Electronic board with LCD for flow calculation

Outs: Isolated RS232/RS485, 2 isolated channels

OCT, 1 isolated channel 4--20mA (two wires)

Inputs: 3 channels 4--20mA

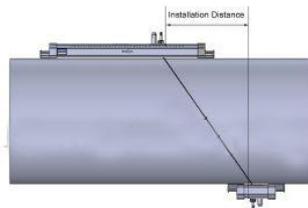
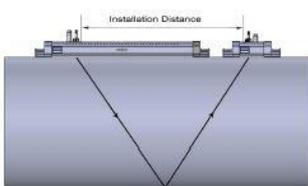
Power supply: DC8-36V o AC220V

Communication protocol: Compatible with Meter-bus, Modbus, Fuji extended protocol and other general protocols of water.



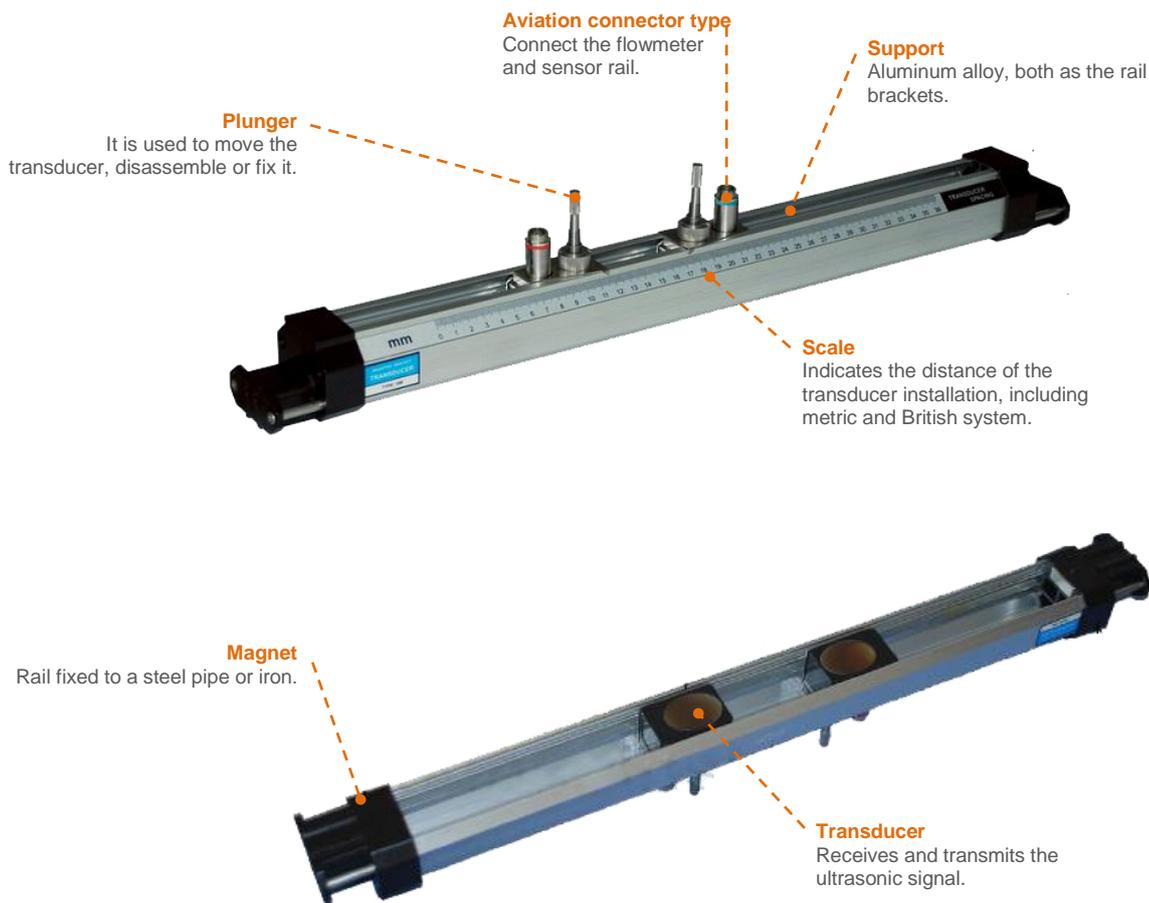
This rail transducers, is a new type of sensor for **SP-200S/SC ultrasonic flowmeter**, simplifies the installation of ultrasonic transducers, shortens the installation time and significantly improves accuracy.

Fixing accessories and rail are made of aluminum, bringing lightness and structural stability. The transducers are stainless steel 304, providing corrosion resistance.



Both transducers, as the rail, are removable and can be installed both by the V method as Z.

The diameter of the measuring tubes can reach more than DN 700 mm by method Z.



Small rail transducer (HS)



Diameters range: DN15~DN100mm	MENÚ 23: Standard HS
Temperatures range: -30~90°C	

Rail transducer medium (HM)



Diameters range: DN 50~DN300mm	MENU 23: Standard HM
Temperatures range: -30~90°C	

Transducer Rail Extension (BE-1)



Diameters range: DN300~DN700mm
Temperatures range: -30~90°C