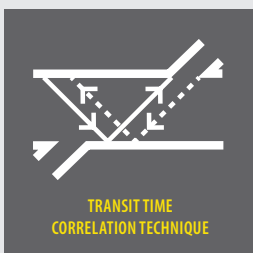


# ULTRASONIC FLOW METER

## S460



# Measure liquid flow and consumption



## S460 FEATURES



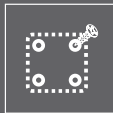
**TRANSIT TIME  
CORRELATION  
TECHNIQUE**



**SENSOR**  
PT100, 3wire



**PORTABLE**  
Connectable  
to S551



**STATIONARY**  
Connectable to  
S330 / S331 series

### Measurement of liquid flows and consumption such as:

- Chemical addition
- Cooling and heating water
- Drinking water
- Broad range of refined hydrocarbons
- Potable water
- De-ionized and demineralized water
- Sanitary flow rate measurements
- Purified water

## S460 OPERATION PRINCIPLE

The S460 ultrasonic flow meter uses the proven clamp-on transit-time correlation technique. The ultrasonic transducers are simply clamped onto the outside of the pipe and never come in contact with the fluid.

The transducers are connected to a controller which is available as hat rail, or portable version. The stationary models can be connected to the S330 / S331 series of displays and data loggers where the portable model is connectable to the S551.



S460-W, wall mountable controller

## S460 TECHNICAL DATA

General Specifications	
Velocity range	0.03 ... 20 m/s
Repeatability	0.2% of reading
Accuracy	±1% of reading
Temperature sensor	PT100 3-wire
Output	4 ... 20 mA
Communication	Modbus/RTU, Modbus ASCII
Pipe sizes	32 ... 6000 mm (depending on transducer type, inner diameter)
Operating temperature	Controller: -20 ... +60°C Transducer: -30 ... +90°C (Standard) -30 ... +160°C (High temperature)
Physical units	Selectable
Supply	24 VDC / 1.5 W (S 460-P) 230 VAC or 24 VDC (S 460-W)
Dimensions:	Wall version: 190 x 155 x 85 mm Portable version: 177 x 177 x 60 mm



Clamp-on temperature sensors are used for energy calculation in heating and cooling systems

To calculate the flow range please use this formula:

$$Q = Di^2 * 0.01979$$

Q [m3/h]

Di [mm]



Complete wall mountable set: S460-W + transducer pair  
(metal stretcher and coupling agent are included in S460-W)














Ultrasonic transducer pair, screw terminals

# S460 ORDERING



Visit our website or e-mail us:  
[www.suto-itec.com](http://www.suto-itec.com)  
[sales@suto-itec.com](mailto:sales@suto-itec.com)

Please use the following table to assist in placing your order with our sales staff.

	<b>Ultrasonic flow meter controller, wall mountable</b>	
	<b>D554 0074</b>	S460-W, ultrasonic flow meter controller, wall mountable, including 5 m connection cable to transducers, metal stretcher and coupling agent
	<b>Ultrasonic transducer pair</b>	
	<b>S694 4606</b>	Ultrasonic transducer pair, DN32 ... DN100, screw terminals, for stationary, TS-2
	<b>S694 4607</b>	Ultrasonic transducer pair, DN100 ... DN700, screw terminals, for stationary, TM-1
	<b>S694 4608</b>	Ultrasonic transducer pair, DN300 ... DN6000, screw terminals, for stationary, TL-1
	<b>Portable ultrasonic controller for liquid flow sensor</b>	
	<b>P554 0070</b>	S460-P, ultrasonic controller for liquid flow sensor, connectable to S551, including 5 m connection cable to S551 and to transducers, metal stretcher and coupling agent
 Optional	<b>Ultrasonic transducer pair</b>	
	<b>S694 4603</b>	Ultrasonic transducer pair, DN32 ... DN100, socket terminals, for portable, TS-2
	<b>S694 4604</b>	Ultrasonic transducer pair, DN100 ... DN700, socket terminals, for portable, TM-1
	<b>S694 4605</b>	Ultrasonic transducer pair, DN300 ... DN6000, socket terminals, for portable, TL-1
	<b>Transducer cable pair</b>	
	<b>A553 0124</b>	Transducer cable pair, red and blue connector, 5 m (included in P554 0070)
	<b>Transducer cable pair</b>	
	<b>A553 0127</b>	Transducer cable pair, open wire, 2 poles, outer diameter 7 mm, shielding (2 x 5 m included in D554 0074)
	<b>Sensor cable, 6 poles</b>	
	<b>A553 0121</b>	Sensor cable, 6 poles, AWG22, 7.5 mm outer diameter, w/ shielding, black [per meter] (for connection to S330 / S331 displays)
	<b>Coupling agent</b>	
	<b>A554 0075</b>	Coupling agent, ultrasonic transducers, 100 g, temporary installations (included in P554 0070)
	<b>Metal stretcher</b>	
	<b>A554 0077</b>	Metal stretcher for installations of transducers (2 pieces) (2 pieces included in D554 0074 + P554 0070)
	<b>Coupling agent</b>	
	<b>A554 0078</b>	Coupling agent, ultrasonic transducers, 100 g, permanent installations (included in D554 0074)
	<b>Temperature sensor, Pt100</b>	
	<b>S604 0107</b>	Temperature sensor, Pt100, 3-wire, with 2 m cable, clamp-on sensor for pipes, including stretcher (2 sensors required for energy calculation / only for stationary applications)