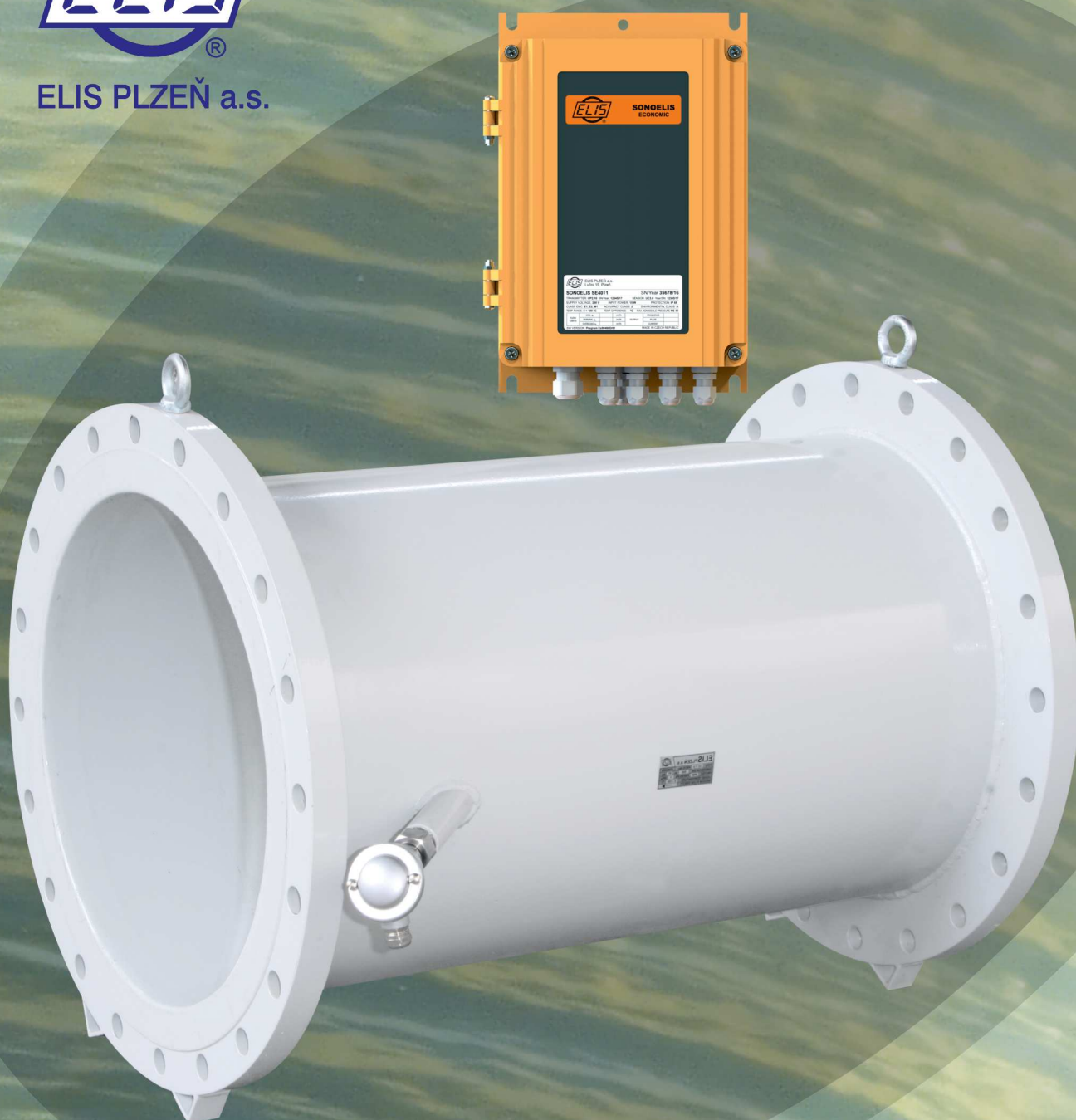




ELIS PLZEŇ a.s.



**ULTRASONIC FLOW METERS SONOELIS SE401x.1  
SONOELIS SE402x.1**

## SONOELIS SE401x.1, SE402x.1

Ultrasonic flow meters SONOELIS SE401x.1 (one beam) and SONOELIS SE402x.1 (dual beam) are electronic devices designed for measurement of fluid flow parameters with transit time method in a piping completely filled with the flowing fluid. The meters consist of a fluid flow sensor UC 7.0 and the evaluation electronic unit UP 2.20. These two parts are separated connected with two co-axial cables. Sensor UC 7.0 includes two or four ultrasonic transducers, that means it is a one beam sensor or dual beam sensor. The application of this sensor extends the range of measured values, allows for shorter fluid-flow stabilization piping section at the meter input and output and generally increases the measurement accuracy.

In this separate version of the meter (with separated sensor and the associated electronic unit), the sensor is connected to the electronic unit by two or four co-axial cables of adequate length. These versions are available in configuration named ECONOMIC (electrical outputs only) and COMFORT (keyboard, display and electrical outputs).

### METER SPECIFICATIONS

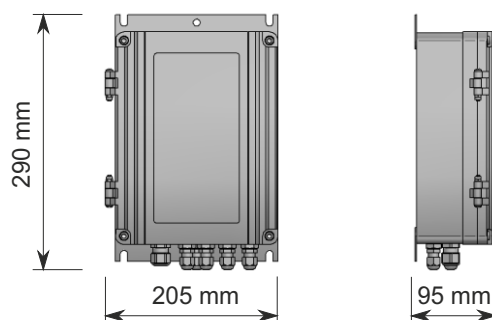
nominal diameter / size	DN200 to DN1200 / 8" to 48"
nominal pressure [bar / psi]	standardly PN 10 / 150
measurement accuracy EN ISO 4064-1 (OIML R 49), EN 1434 (OIML R 75) *)	2
temperature of measured liquid	0°C to 150°C (32° to 302°F)
ambient temperature	5°C to 55°C (41° to 131° F)
display unit	ECONOMIC (no display), COMFORT (LC display, keyboard)
power supply	100 to 250VAC, 50 to 60Hz (AC)
protection class (electronic unit)	IP 66
protection class (ultrasonic sensor)	IP 54 (IP 68)
outputs (insulated)	pulse type frequency type 0 to 1,000Hz or 10kHz relay type 24VAC/0.1 A
optional accessories	communication line RS 485 extended temperature range from -20°C to +180°C / -4 °F to 356 °F current output 0 (4) to 20mA mass flow-rate measurement capability for water flow-rate measurement in two directions sensor protection class IP 68 power supply 24 V DC $\pm$ 10%
approval MID	TCM 142/16 - 5353 (for SE4011.1)

\*) optional measurement accuracy  $\pm 1.0\%$  for velocity of the measured liquid  $v > 0.5\text{m/s}$  /  $1.64\text{ ft/s}$  for SE401x.1  
 $\pm 0.5\%$  for velocity of the measured liquid  $v > 0.5\text{m/s}$  /  $1.64\text{ ft/s}$  for SE402x.1

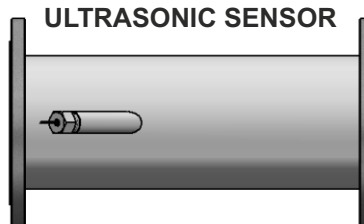
### METER, CONFIGURATION AND TYPE DESIGNATION

configuration	ECONOMIC	COMFORT
single beam	SE4011.1	SE4015.1
dual beam	SE4021.1	SE4025.1

### ELECTRONIC UNIT



### ULTRASONIC SENSOR



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