



ELIS PLZEŇ a.s.



**ULTRASONIC FLOW METERS SONOELIS SE404x.1
SONOELIS SE406x.1**

SONOELIS SE404x.1, SE406x.1

Ultrasonic flow meters SONOELIS SE404x.1 (one beam) and SONOELIS SE406x.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 meter consists of a fluid flow sensor UC 3.0 (single beam) and UC 5.0 (dual beam) and the evaluation electronic unit UP 2.20. These two parts are separated connected with two co-axial cables. Sensor includes two (UC 3.0) or four (UC 5.0) ultrasonic transducers, that means it is a one beam 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 version are available in configuration ECONOMIC (electrical output only) and COMFORT (keyboard, display and electrical outputs.)

METER SPECIFICATIONS

nominal diameter / size	DN32 to DN300 / 1 1/4" to 12"
nominal pressure [bar / psi]	40 / 600 (DN32 to DN80 / 1 1/4" to 3") and 16 / 150 (from DN100 / 5")
measurement accuracy EN ISO 4064-1 (OIML R 49), EN1434 (OIML R 75) *)	2
temperature of measured liquid	0°C to 150°C / 32 °F to 302 °F
ambient temperature	5°C to 55°C / 41 °F to 151 °F
display unit	alfammeric LC display, 2 lines, 16 char each
power supply	110 to 250VAC, 50 to 60Hz (AC)
protection class (electronic unit)	IP 66
protection class (ultrasonic sensor)	IP 67
outputs (insulated)	pulse type, one pulse per 0.1 to 1,000 litres frequency type, 0 to 1,000Hz or 10kHz relay type 24VAC/0.1 A
optional accessories	PN 40 / 600 for DN100 / 4" and higher extended temperature range from -20 °C to +180 °C / -4 °F to 356 °F sensor protection class IP 68 communication line RS 485 current output 0 (4) to 20mA mass flow-rate measurement capability flow-rate measurement in two directions
approval MID	TCM 142/16-5353 (for SE4041.1)

*) optional measurement accuracy $\pm 1\%$ for velocity of the measured liquid $v > 0.5 \text{ m/s} / 1.64 \text{ ft/s}$ for SE404x.1

*) optional measurement accuracy $\pm 0.5\%$ for velocity of the measured liquid $v > 0.5 \text{ m/s} / 1.64 \text{ ft/s}$ for SE406x.1

METER CONFIGURATION AND TYPE DESIGNATION

configuration	ECONOMIC	COMFORT
single beam	SE4041.1	SE4045.1
dual beam	SE4061.1	SE4065.1

