



ELIS PLZEŇ a.s.



**ULTRASONIC FLOW METERS SONOELIS SE401X  
SONOELIS SE402X**

## SONOELIS SE401X, SE402X

Ultrasonic flow meters of the SONOELIS SE401X (single-beam) and SE402X (dual-beam) type series are intended for flow-rate measurements of conductive, non-conductive and aggressive liquids. Ultrasonic flow meters operate on the principle of measuring the difference in transit times of ultrasonic waves travelling in and against the fluid flow direction. The meter consists of a flow sensor and associated electronic unit. Ultrasonic flow meters offer excellent user value in their high measurement accuracy over a wide range of measured values, long-term stability, negligible hydraulic losses and the capability of measuring the flow rate of virtually any liquid medium.

The electronic unit supplies power to both ultrasonic probes and, via its outputs, communicates the flow-rate data to other co-operating data processing systems. The meter is supplied with remote electronic unit. Regarding operator comfort and optional accessories, the meter can be delivered in three configurations: COMFORT (including a display unit and control keyboard, signal outputs), STANDARD (including a display unit, signal outputs) or ECONOMIC (signal outputs only).

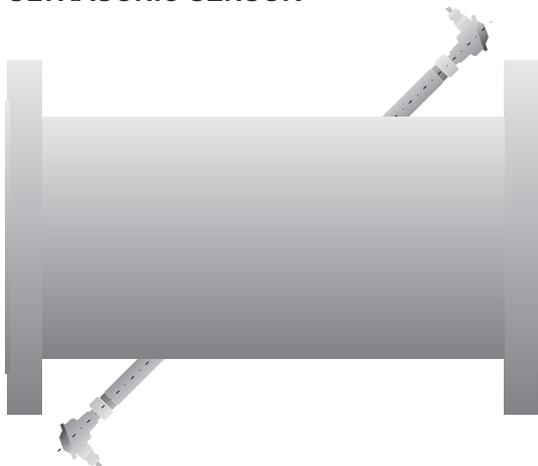
### METER SPECIFICATIONS

nominal diameter DN	DN 200 to DN 1200
nominal pressure PN	standardly PN 10, substandardly PN 16, PN 25 for DN 200 to DN 500
measurement accuracy, SE401X	$\pm 1.0\%$ for velocity of the measured liquid $v > 0.5\text{m/s}$
measurement accuracy, SE402X	$\pm 0.5\%$ for velocity of the measured liquid $v > 0.5\text{m/s}$
temperature of measured liquid	0 to 150°C
ambient temperature	5 to 55°C
display unit	alpha-numerical LCD unit, two lines of 16 characters each
power supply	90 to 250VAC, 50 to 60Hz (AC)
protection class (electronic unit)	IP 65
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: -20°C to +180°C current output 0 (4) to 20mA mass flow-rate measurement capability flow-rate measurement in two directions sensor protection class IP 68
approval MID	TCM 142/16 - 5353 for SE4011

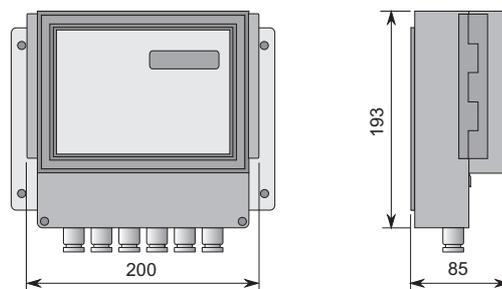
### METER VERSION, CONFIGURATION AND TYPE DESIGNATION

version	REMOTE		
configuration	ECONOMIC	STANDARD	COMFORT
single-beam type	SE4011	SE4013	SE4015
dual-beam type	SE4021	SE4023	SE4025

#### ULTRASONIC SENSOR



#### ELECTRONIC UNIT



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