



ELIS PLZEŇ a.s.



**ULTRASONIC FLOW METERS SONOELIS SE804x.x
SONOELIS SE806x.x**

SONOELIS SE804x.x, SE806x.x

Ultrasonic flow meters of the SONOELIS SE804x.x (single-beam) and SE806x.x (dual-beam) type series for direct assembly of ultrasonic probes into piping are intended for instantaneous flowrate and fluid volume measurements in fully flooded piping of big dimensions. The measuring method used allows meter application in piping systems with any type of liquid (electric conductive and non-conductive) permitting propagation of ultrasonic waves. On prior consultation and agreement with the manufacturer, the meter can even be used for measurement of aggressive fluids. 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 associated electronic unit includes the necessary hardware and software for communication with superordinated control systems. To ensure high measurement accuracy, follow the manufacturer's recommendations regarding the so-called theoretical meter calibration. The meter consists of a flow sensor to be embedded into the fluid piping and associated electronic unit, providing power for the ultrasonic probes and processing the ultrasonic signals. Regarding operator comfort and optional accessories, the meter can be delivered in three configurations: COMFORT (including a display unit, control keyboard and signal outputs), STANDARD (including a display unit and signal outputs) or ECONOMIC (including signal outputs only). The measured values of instantaneous flow rate and fluid volume are shown on the meter display. The electronic unit is fitted into a sealed plastic or aluminium box. The measuring ranges can be modified using a notebook computer.

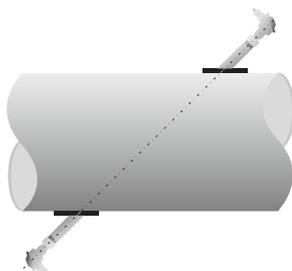
METER SPECIFICATIONS

nominal diameter / size of piping	DN200 to DN1200 / 8" to 48"
angle of measuring beam	45° for DN200 to DN800 60° over DN800 to DN1200
measurement accuracy, SE804x.x	± 2% for velocity of measured liquid $v > 0.5\text{m/s}$
measurement accuracy, SE806x.x	± 1% for velocity of measured liquid $v > 0.5\text{m/s}$
nominal pressure [bar / psi]	16, 40 / 150, 600
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	alpha-numerical LCD unit, two lines of 16 characters each
power supply	100 to 250 V AC, 50 to 60 Hz
protection class (electronic unit)	IP 65
protection class (probes)	IP 54
ultrasonic probes SE804x	2 pcs US 2.x - manufactured by ELIS PLZEŇ a. s.
ultrasonic probes SE806x	4 pcs US 2.x - manufactured by ELIS PLZEŇ a. s.
probe fitting	directly into piping
probe connecting cables	standard length, 8m extended length, up to 100m
outputs (insulated)	pulse type, one pulse per 25 to 1,000 litres frequency type 0 to 1,000Hz relay type 24VAC/0.1A
optional accessories	communication line RS 485 current output 0 (4) to 20mA, insulated mass flow-rate measurement capability for measurement of water extended fluid temperature range, up to 180°C / 356°F flow-rate measurement in two directions probe protection class IP 68

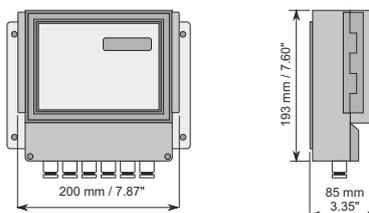
METER VERSION, CONFIGURATION AND TYPE DESIGNATION

version	PLASTIC BOX			ALUMINIUM BOX	
	ECONOMIC	STANDARD	COMFORT	ECONOMIC	COMFORT
single-beam sensor	SE8041	SE8043	SE8045	SE8041.1	SE8045.1
dual-beam sensor	SE8061	SE8063	SE8065	SE8061.1	SE8065.1

ULTRASONIC PROBES US 2.x WELDED DIRECTLY INTO PIPING



ELECTRONIC UNIT - PLASTIC BOX



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