

LSta60LM-PLC (solvent-resistant)



DIMENSIONS

Dimensions (without mobile sub-frame)	1200 x 600 x 800 mm (L x B x H)
Dimensions (with mobile sub-frame)	1200 x 600 x 1800 mm (L x B x H)
Weight	approx. 250 kg
Material (wetted parts)	FFKM (Kalzez) / PTFE / FEP / and stainless steel (group V4A)
Seal material (dependent on solvent)	e.g. EPDM / FKM (Viton)

ELECTRICAL DATA

Connection for power supply	400 V / 50 Hz / 3-Phasen / 16 A-CEE
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DATA

Storage tank	approx. 7,5 l (group V4A, heatable via double jacket), protective gas inertisation (here N ₂)
Test cell for flat membranes	approx. 250 cm ²
Pressure tube for	spiral-wound module (here: Typ 1812, approx. 0,3 m ²), others adaptable
Pressure tube for	mono-tube ceramic membrane (10 mm outer diameter, 600 mm length), others adaptable
Field of use	MF/UF NF/UO
Temperature range	up to 80 °C at 60 bar (The system has an internal splash and scald protection)

Pressure range	2 – 60 bar
Flow rate (feed)	60 - 600 l/h
System control via PLC (type Siemens / S7)	<p>Safety shut-off and dry run protection (p, T) control on concentrate or permeate volume flow control on pressure <u>no ATEX-compliant design</u></p> <p>The system is designed that it can be operated in a fume cupboard. For this purpose, the control cabinet is dismantled and the safety shutdown of the system is coupled with that of the fume cupboard. Operation of the system is only possible if the fume cupboard is in operation!</p>

The system control via PLC guarantees the performance of long-term tests and an independent and safe system operation even without a data logging system.

(The specified technical data are maximum values. They do not coincide all at the same time!)

SENSORS	MEASURING RANGE	QUANTITY
Pressure	0 - 100 bar	(3 pieces)
Volume flow (concentrate) (coriolis mass meter)	0 - 1000 kg/h	(1 piece)
Volume flow (permeate) (coriolis mass meter)	0 - 65 kg/h	(1 piece)
Level control (in storage tank)	Guided microwave	(1 piece)
Temperature (PT 100)	0 - 100 °C	(1 piece)

FIELD OF USE

Experiments on organophilic nanofiltration

Experiments on filtration of and with solvents and aqueous solutions at high pressures and temperatures

Experiments with different membrane types, membrane materials, membrane geometries and flow aids

Experiments to optimize process parameters of industrial applications

Cleanability experiments of membranes

Schematic view of LSta60LM-PLC

