

Research Unit with fast pulsating or alternating tangential flow (LSta05-PAC-HF)



DIMENSIONS

Dimension	approx. 1200 x 800 x 1600 mm (L x B x H)
Weight	approx. 100 kg
Material (wetted parts)	PTFE / EPDM / PP / PVC transparent / PVDF and stainless steel (group V4A)
IP protection class	IP 54

ELEKTRICAL DATA

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

Storage tank	approx. 7,5 l (stainless steel, heatable via double jacket)
Mounting device	hollow fiber tube module (others adaptable)
Field of use	MF / UF
Temperature range	up to 55 °C at 2 bar
Pressure range	0 – 2 bar
Flow rate (feed)	up to 150 l/h
Refill	automated via level sensor

System control via PLC
(type Siemens / S7)

safety shut-off and dry run protection (p,T)
control on feed or permeate volume flow
control on pressure

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 – 10 bar	(5 pieces)
Volume flow (feed) (magnetic-inductive flow meter)	0 - 600 l/h Minimum conductivity 10 µS/cm (20 µS/cm for purified water)	(1 piece)
Volume flow (permeate) (magnetic- inductive flow meter)	0 - 36 l/h Minimum conductivity 10 µS/cm (20 µS/cm for purified water)	(1 piece)
Level sensor (storage tank)	Guided microwave	(1 piece)
Temperature (PT 100)	0 – 100 °C Temperature compensation included	(1 piece)

FIELD OF USE

Experiments with alternating tangential flow filtration

Experiments with pulsating tangential flow filtration

Experiments on cleanability of membranes with alternating or pulsating volume flow

Comparison of different membrane materials

Optimization of process parameters of industrial applications

Schematic view of the LSta05-PAC HF

