

Product data sheet

Test unit: LSta80-SPC



DIMENSIONS

Dimensions*	(L x B x H)	1300 x 600 x 800	(in mm)
weight		ca. 200	(in kg)
material (wetted parts)		PTFE, PVDF, PEEK, FEP and stainless steel (group V4A)	

ELECTRICAL DATA

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

DATA

storage tank	7,5 L (cooling and heating via double-jacket)
test-cell for flat sheet membranes	85 cm ² (stackable up to 3 membranes)
temperature range	up to 60°C at 80 bar
pressure range	up to 80 bar
flow rate (feed)	25 - 100 l/h at max. 80 bar
pulsation damping	membrane pump with EPDM membrane dynamic; over the entire pressure range
dead volume of test unit	approx. 220 ml
Feed & Bleed peristaltic pumps**	refill pump: max. 15 l/h discharge pump: max. 10 l/h adjustable
pH stabilisation pump**	max. 0,9 l/h adjustable (peristaltic pump)
system control via SPC (type Siemens S7 / Profinet)	safety cut-offs and dry run protection (p, T) volume flow (concentrate) control Pressure or transmembrane pressure control temperature control

It's possible to perform long-term tests and a stand-alone and safe operation of the test plant because of the system control via SPC without using a data acquisition system.

The given technical data are maximum values and do not apply all at the same time!

OPTIONS

extension test cell (upt to three membranes)	
permeate flow measurement	
Conductivity measurement for concentrate	
Data acquisition	
pH-value measurement for concentrate	
MF / UF - converter kit***	
extension to Dead-End-mode	
mobile rack	
extension of the SPC package	i.e. set-up of 10 variations of parameters for test program i.e. Feed & Bleed mode i.e. pH-stabilization

SENSORS

pressure	0 - 100 bar	(3 pieces)
volume flow (feed) (magnetic-inductive flow-meter)	25 - 100 l/h at 80bar minimum conductivity 5 μ S/cm (20 μ S/cm for purified water)	(1 piece)
volume flow (permeate)** (Magnetisch-induktiver Durchflussmesser)	0,10 - 10 l/h minimum conductivity 5 μ S/cm (20 μ S/cm for purified water)	(1 piece)
level control (in storage tank)	guided microwave	(1 piece)
temperature (PT 100)	0 - 100 °C	(1 piece)
conductivity measurement in concentrate**	1 μ S/cm - 2 S/cm temperature compensation included	(1 piece)
pH -measurement concentrate**	pH- glas electrode in PVDF flowthrough vessel	(1 piece)

APPLICATIONS

- Experiments with different membrane materials and / or spacer
- Experiments for the optimization of process parameters in industrial applications
- Long term test for inspection of the long term behavior of membranes
- Concentration experiments
- Cleaning experiments of membranes

* including switchgear cabinet: 600 x 400 x 800 mm (L x B x H)

** optional available

*** set of pressure sensors and a pressure regulation valve (with quick coupling) are included

Schematic view of the LSta80-SPC

