



# PERVATECH<sup>®</sup>

## Datasheet

# LAB SCALE MODULE PVM-050-1-A

The stainless steel PVM-050-1-A lab scale module is designed to hold one tubular membrane of 500 mm length for use in pervaporation or vapor permeation applications. The module is designed and manufactured according to the European Pressure Equipment Directive (PED) 2014/68/EU.

### MODULE DATA

Module housing material	SS316L
Design standard	2014/68/EU
Design details	see table with Design data on next page
Feed connection	1/4" NPT
Retentate connection	1/4" NPT
Permeate connection	1/2" NPT
Pressure gauge connection	1/4" NPT
Sealing of membrane tubes	O-ring (EPDM-PC, VITON, FFKM)
Sealing of flanges	Gasket or O-ring (EPDM-PC, VITON, FFKM, Teflon)

### MEMBRANE DATA

Standard membranes	Tubular Hybrid silica, PDMS, PEBA or POMS
Membrane dimensions	L x OD x ID = 500 x 10 x 7 mm (tubular)
Membrane surface area	0.01 m <sup>2</sup>

### NOZZLE LIST

Item	Dim.	Description
N1	1/4" NPT	Inlet
N2	1/4" NPT	Outlet
N3	1/2" NPT	Vacuum piping connection
N4	1/4" NPT	Vacuum meter connection

### OPERATIONAL WINDOW

Operating pressure	Maximum 60 barg
Process temperature	Maximum 180 °C (depending on membrane and sealing type)
Vacuum	1 mbar
Feed pump capacity	Up to 500 liter/h

### CLEANING

Use general cleaning products for SS316.  
Further depending on membrane and sealing.



10: Type and serial number

## DESIGN DATA

PED Medium group	1	Dangerous
PED Phase	Gas	
Hydrostatic test pressure	110	barg
Operating pressure	60	barg
Operating Temperature	180	°C
Design pressure	65	barg
Design Temperature	200	°C
Volume	0.47	ltr.
Weight of vessel empty	3.5	kg
Corrosion allowance	N/A	mm
Classification acc. PED 2014/68/EU	Art.4, par.3	
Design code	EN13445	
Joint factor	0.85	
Inspection	Beta Technology	
NoBo	N/A	
Radiographic/Ultrasonic testing (RT/UT)	0%	
Magnetic particle/Penetrant testing (MT/PT)	10 / 100%	
Visual testing	100%	
Certificate	DoC	***

\*\*\* Declaration of Conformity

### Remarks:

- \* Materials produced according to European Harmonized Standards
- \* Material certificates according to EN10204:2004
- \* Surface treatment inside Clean and dry, outside Pickled and passivated

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