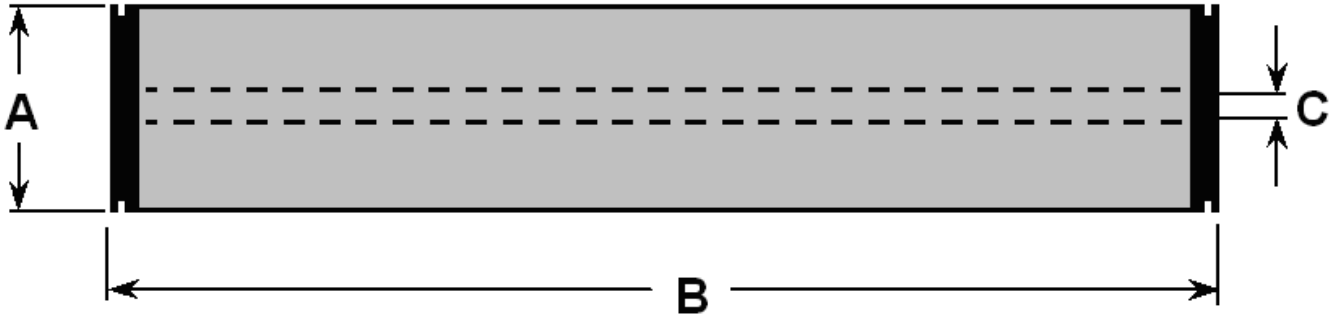


# SPIRA-CEL<sup>®</sup> Data Sheet

## - Modules for Nanofiltration -

### OX-NP-4040 Series

Modules for Environmental and Industrial Applications



Module		A	B	C
		Ø Outside Module	Length Module	Ø Inside Permeate tube
Dimension	mm	101.5	1016	16.0
Tolerance	mm	+0 / -2	+1 / -3	± 0.1

Membrane		
NADIR <sup>®</sup> membrane type	NP010	NP030
Membrane material	PES	PES

Module specs & data					
Spacer type			Diamond	Diamond	Parallel
Spacer thickness		mil / mm	30 / 0.8	44 / 1.1	44 / 1.1
Membrane area		m <sup>2</sup>	7.6	6.3	6.3
Outer wrap			Industry hard shell		

Recommended operating conditions					
Prefiltration		µm	≤ 50	≤ 75	≤ 75
Cross flow <sup>(1)</sup>		m <sup>3</sup> /h	4 - 8	6 - 10	6 - 10
Permeate pressure		bar	0	0	0

Allowable operating conditions					
Feed pressure, max.		bar	40	40	40
Retentate pressure, min.		bar	0.7	0.7	0.7
Transmembrane pressure, max.		bar	40	40	40
Permeate pressure, max.		bar	0.35	0.35	0.35
Pressure loss per module, max. (Δp <sub>max</sub> ), 5 - 50 °C		bar	2	2	2
Pressure loss per module, max. (Δp <sub>max</sub> ), 50 - 65 °C		bar	1.3	1.3	1.3
Pressure loss per module, max. (Δp <sub>max</sub> ), 65 - 80 °C		bar	0.5	0.5	0.5
Pressure loss per housing, max. at 80 °C		bar	2	2	2
Processing temperature		°C	5 - 80	5 - 80	5 - 80
pH range during filtration			3 - 14	3 - 14	3 - 14
pH range during CIP			2 - 14	2 - 14	2 - 14
Disinfection with chlorine <sup>(2)</sup>		ppmh	35.000	35.000	35.000

<sup>1)</sup> for water at 25 °C / <sup>(2)</sup> at 200 ppm chlorine, 30 - 50 °C and pH > 11 for max. 30 min/day

#### Note:

Not all combinations are available. Please do not hesitate to contact MICRODYN-NADIR for any further information.

MICRODYN-NADIR behält sich das Recht vor, Angaben ohne vorherige Ankündigung anzupassen.  
We reserve the right to change specifications without prior notification.

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# SPIRA-CEL<sup>®</sup> Data Sheet

- Modules for Nanofiltration -

## OX-NP-4040 Series

### Changes:

The here printed values may be subject to changes. Presently valid are the values on the data sheet shown on web site [www.microdyn-nadir.com](http://www.microdyn-nadir.com).

### Tolerances:

The tolerances indicated on our data sheets are composed to the best of our knowledge.

### Warranty:

Stated warranties are valid if values on this data sheet are followed during use of the module(s) only. Also rules for installation, cleaning, water and preservation have to adhered to and log registered made available for MICRODYN-NADIR on request. MICRODYN-NADIR approved cleaning detergent, anti-foam, polymers, other chemicals and filter-aids lubricants can be applied only.

### First Cleaning:

MICRODYN-NADIR modules may be put into production after having gone through the first cleaning prescribed by MICRODYN-NADIR on product packing notes or given differently by MICRODYN-NADIR.

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