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LifeASSURE™ ER Series Nylon Membrane Cartridge Filters

The LifeASSURE ER Series filter cartridges, formerly known as Electropor ER, deliver high purity deionised (DI) water required by the semi conductor and electronics industries. LifeASSURE ER filters with charge-modified Nylon 6,6 membrane provides enhanced particle removal capability and superior downstream cleanliness.

Upon installation, LifeASSURE ER filter cartridges quickly rinse to resistivity and Total Organic Carbon (TOC) specifications, minimising flush time and permitting rapid system start-up.

Enhanced Particle Removal Capability

Electropositive charge modification of the Nylon 6,6 membrane enables LifeASSURE ER cartridges to remove particles much smaller than the rated pore sizes. The combination of electrokinetic adsorption (positive charge) and mechanical sieving (pore size) removes common sub-micron contaminants such as colloidal silica and bacteria fragments.

3M Purification LifeASSURE ER filters are available in single and multiple length cartridges with 0.45, 0.2, 0.1 and 0.04 micron ratings.

LifeASSURE ER Flow Rates vs. Differential Pressures

The LifeASSURE ER filter cartridges provide consistent deionised water purity throughout the flow ranges shown in Graphs 1 and 2, when operated within the recommended parameters.

Recommended Operating Parameters	
Maximum Operating Temperature	80 °C
Maximum Forward Differential Pressure	4.5 bar at 25 °C
Maximum Reverse Differential Pressure	4.5 bar at 25 °C

Features and Benefits

Charge-modified Nylon 6,6 membrane

- Enhanced particle removal for improved water purity

Pleated, high surface area filter membrane

- High flow capacity with extended life

Factory pre-rinsed with high purity 18 meg-Ω DI water

- Rapid resistivity, TOC and particle rinse-up for reduced system start-up time

Thermally bonded Polypropylene, Polyester and Nylon 6,6 components

- No contaminant contribution during filter service life

Naturally hydrophilic Nylon 6,6 membrane

- No IPA pre-wetting and system flushing required – eliminates a potential source of contamination and chemical interaction, while reducing hazardous waste disposal

100% integrity tested during manufacture

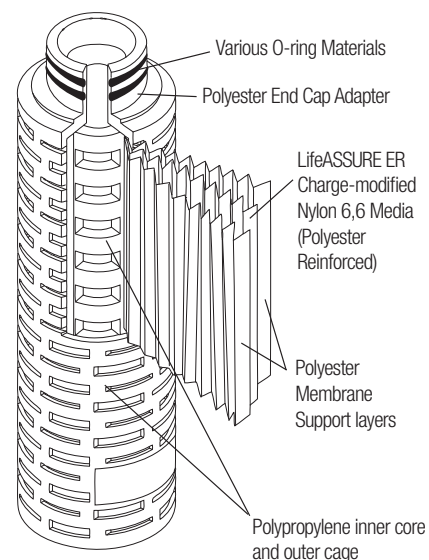
- Assured filtration performance



Applications

- DI Water
- Critical Parts Cleaning
- Ultra Pure Water
- Wafer Cleaning

Standard Cartridge Construction

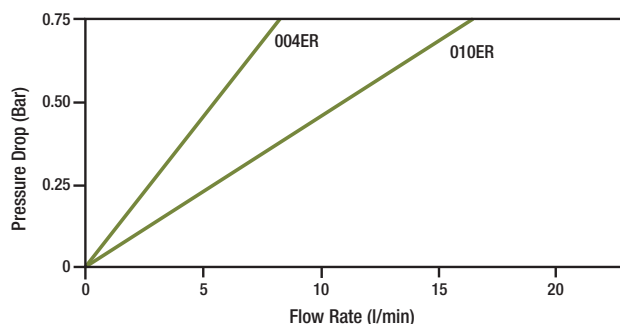


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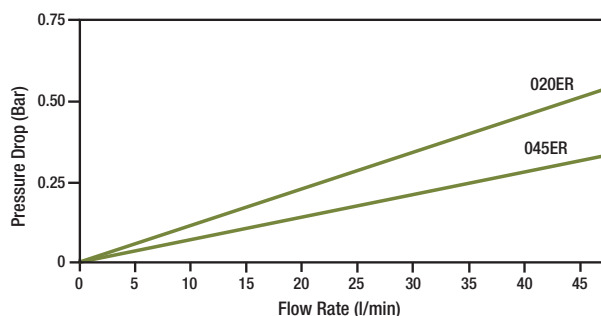
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Graph 1:
Typical Flow vs. Differential Pressure for 004 ER & 010 ER (per 10" element)



Graph 2:
Typical Flow vs. Differential Pressure for 020 ER & 045 ER (per 10" element)



LifeASSURE ER Filter Cartridge Ordering Guide

Catalogue Number	Cartridge Length	Gasket or O-Ring	Removal Rating	Formulation	Control Grade
70002 70003 70005 70006 70012 70025	01 - 10" (254 mm) 02 - 20" (508 mm) 03 - 30" (762 mm) 04 - 40" (1016 mm)	A - Silicone B - Fluorocarbon C - EPR D - Nitrile H - Clear Silicone	045 - 0.45 µm 020 - 0.20 µm 010 - 0.10 µm 004 - 0.04 µm	E - Electronics	R - Rinsed

Note: LifeASSURE ER is new name for Electropor ER.

Single Open End Code 7 (226) O-Ring Bayonet Lock

70002

Cartridge Length	
Code	mm
01	259
02	506
03	754
04	1002

Single Open End Code 8 (222) O-Ring Bayonet Lock

70003

Cartridge Length	
Code	mm
01	260
02	507
03	755
04	1003

Double Open End Flat Gasket

70005 & 70006

Code	Cartridge Length	
	mm	mm
01	254	248
02	508	495
03	762	743
04	1016	991

Single Open End (222) O-Ring

70012

Cartridge Length	
Code	mm
01	260
02	559
03	787

Single Open End Code 3 (222) O-Ring

70025

Cartridge Length	
Code	mm
01	260
02	507
03	755
04	1003

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Limited Warranty

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70002 01 A 045 E R	70002 03 A 045 E R
70002 01 A 020 E R	70002 03 A 020 E R
70002 01 A 010 E R	70002 03 A 010 E R
70002 01 A 004 E R	70002 03 A 004 E R
70002 01 B 045 E R	70002 03 B 045 E R
70002 01 B 020 E R	70002 03 B 020 E R
70002 01 B 010 E R	70002 03 B 010 E R
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70002 02 H 004 E R	70002 04 H 004 E R