

LifeASSURE™ ER Series

Enhanced Contaminant Reduction for Electronics ER Series

IF-technik GmbH

LifeASSURE™ ER series filter cartridges deliver high purity deionized (DI) water required by the semiconductor and electronics industries. LifeASSURE ER series filters with charge-modified Nylon 6,6 membrane provide enhanced particle removal capability and superior downstream cleanliness.

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

Enhanced Particle Removal Capability

Electropositive charge modification of the Nylon 6,6 membrane enables LifeASSURE ER series filter 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 submicron contaminants such as colloidal silica and bacteria fragments.

3M Purification Inc. LifeASSURE ER series filter cartridges are available in single and multiple length cartridges with 0.45, 0.2, and 0.1 µm ratings.

Recommended Operating Parameters

Maximum Operating Temperature	176 °F (80 °C)
Maximum Forward Differential Pressure	65 psid @ 77 °F (4.5 bar @ 25 °C)
Maximum Reverse Differential Pressure	65 psid @ 77 °F (4.5 bar @ 25 °C)

LifeASSURE™ ER Series Filter Cartridges Flow Rates vs. Differential Pressures

The LifeASSURE ER series filter cartridges provide consistent deionized water purity throughout the flow ranges shown in Graphs 1 and 2 (following page), when operated within the recommended parameters.

Features & 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

Compact Design

- Factory pre-rinsed with high purity 16 meg-W 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 – reduces a potential source of contamination and chemical interaction, while reducing hazardous waste disposal

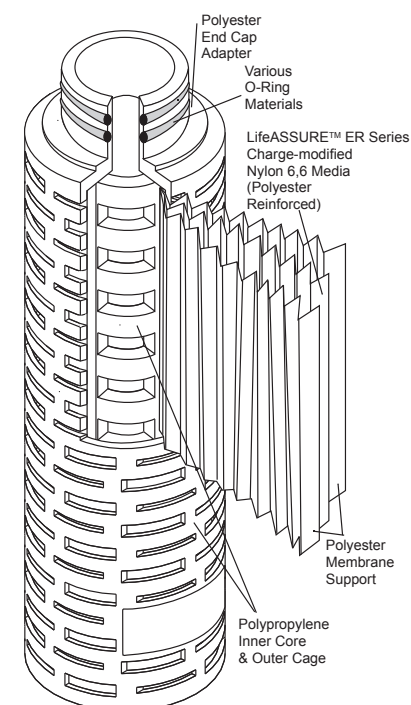
100% integrity tested during manufacture

- Filtration performance efficiency



Applications

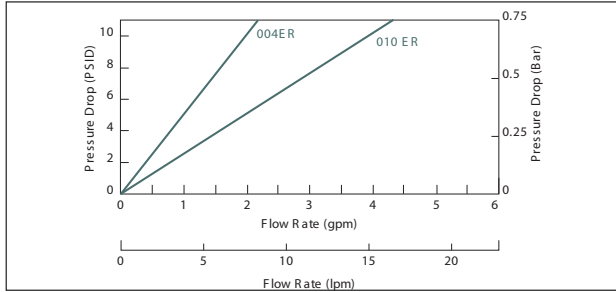
- DI Water
- Critical Parts Cleaning
- UltraPure Water
- Wafer Cleaning



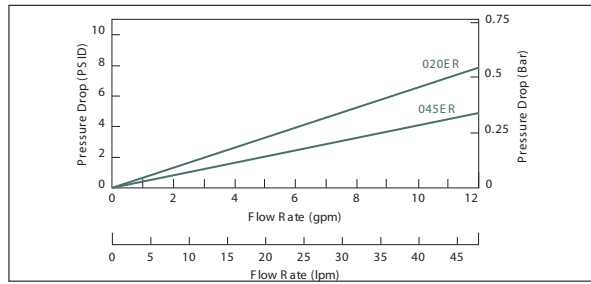
3M

LifeASSURE™ ER Series Filter Cartridges

Graph 1. - Typical Flow vs. Differential Pressure for 010 ER μm (per 10" element)



Graph 1. - Typical Flow vs. Differential Pressure for 020 ER & 045 ER μm (per 10" element)



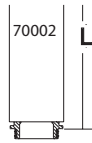
LifeASSURE™ ER Series Filter Cartridge Ordering Guide

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

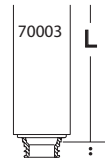
Single Open End Code 7 (226)
O-Ring Bayonet Lock Pall Corporation

Single Open End Code 8 (222)
O-Ring 3M Purification Inc. & Pall Corporation

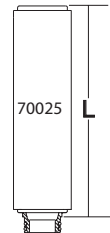
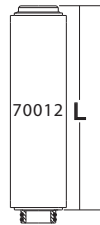
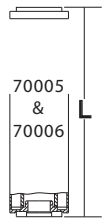
Double Open End Flat Gasket
3M Purification Inc. & Pall Corporation



Single Open End (222)
O-Ring 3M Purification Inc.



Single Open End Code 3
(222) O-Ring Pall Corporation



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