PURELAB

ANALYTICAL RESEARCH









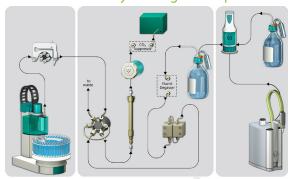
PURELAB® flex 5 & 6

A unique automated solution for Ion Chromatography. Switch on and walk away, Ion Chromatography made easy.

A standalone Ion Chromatography and water purification system all-in-one. The PURELAB flex 5 & 6 is designed to couple directly with the Metrohm 941 Eluent Production Module. This combination delivers complete automation. No need to monitor eluent concentration make-up, no need to refill or to set reminders to refill the water.

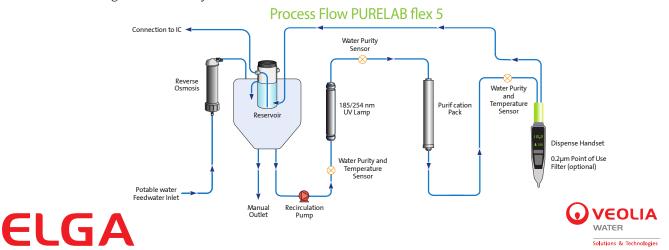
- Integral built-in reservoir for pressureless ultrapure water supply
 developed for Metrohm Dosino technology
- Closed system avoids eluent contamination due to water handling and exposure
- Monitor water purity via USB datalog ensuring analytical performance during test batch
- Prevent column clogging and increases column life: UV (185/254 nm) ensures bacteria and organics control
- Stable retention times: no dissolved CO₂ in water prevents pH change
- Enhanced detection limits through improved stability and purity
- Simultaneous multi-usage: eluent generation, system rinsing and general laboratory work
- Reduces eluent preparation to minimum compared to using bottled water

Combinable for any existing IC Setups



- 881/882 Compact IC
- 850 Professional IC
- 930 Compact IC Flex
- 940 Professional IC Vario

This unique Ion Chromatography solution is produced by two of the world's leading manufacturers: Metrohm, market leader titration and voltammetry and a leading manufacturer for Ion Chromotography and ELGA®, market leader in innovation and design for laboratory water instruments.



PURELAB

Treated Water Specifications

MODEL	PURELAB flex 5	PURELAB flex 6
Daily volume	<10 liters	>10 liters
Delivery flow rate – maximum	Up to 2 I/min	Up to 2 l/min
Recirculation flow rate	1 l/min	1 l/min
Reverse osmosis make up flow rate	Up to 10 l/hour	N/A
Inorganics (resistivity @25°C)	18.2 MΩ-cm	18.2 MΩ-cm
Organics (TOC) – typical	<5ppb ¹	<5ppb ¹
Direct from internal reservoir	Type III / RO water	Type III / RO water
Bacteria – typical (when fitted with POU Filter)	<1 CFU/10ml	<1 CFU/10ml
Bacteria – typical (when fitted with Biofilter)	<1 CFU/10ml	<1 CFU/10ml
Endotoxin (when fitted with Biofilter)	<0.001 EU/ml	<0.001 EU/ml
DNase (when fitted with Biofilter)	<20 pg/ml	<20 pg/ml
RNase (when fitted with Biofilter)	<0.002 ng/ml	<0.002 ng/ml

¹ Dependent on feedwater

Dimensions and weights

Dimensions	Width 236mm, Depth 470mm, Height minimum 900mm, Height maximum 1020mm	
Operational weight	23kg (57.3lb)	23kg (57.3lb)
Installation	Bench/wall	Bench/wall

Feedwater requirement

Source	Potable Tap Water	Originally from potable supply, then pre treated. Preferably reverse osmosis (RO) or filtered service deionization (SDI) or distilled.
Conductivity	<2000 µS/cm ²	<30 μS/cm
Contaminant		
Hardness	<350 ppm as CaCO ₃	<5 ppm as CaCO ₃
Total Chlorine	<0.5 ppm Cl ₂	<0.05 ppm Cl ₂
Silica	<30 ppm SiO ₂	<2 ppm SiO ₂
Carbon Dioxide Maximum	<30 ppm	<30 ppm
	(recommended <20 ppm)	(recommended <20 ppm)
Fouling index	<10	<1
Iron / Manganese	<0.05 ppm	N/A
Organics (TOC)	<2 ppm	<50 ppb recommended
Particulates	N/A	A 0.2 micron membrane pre filter is recommended for all non-RO feeds to extend point-of use filter life
Temperature	4 - 40°C (Recommended 10 - 25°C)	
Flowrate (requirement at 15°C)	Up to 75 l/hr	Up to 60 l/hr
Drain requirements (gravity fall with air gap)	>90L/hr	>70L/hr

Purification pack life may vary with feedwaters >1400 μ S/cm

Feedwater pressure

Maximum	90psi (6bar) ³	90psi (6bar)
Minimum	30psi (2bar) ³	1psi (0.0 7bar)

 $^{^3}$ If <60psi (4 bar) a separate boost pump is recommended

Electrical requirements

Mains Input	100-240V ac, 50-60Hz	
System control voltage (not including pumps and UV)	24V dc	
Power consumption during peak demand	100VA	100VA
Noise Level	<4	OdBa

ELGA LabWater

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