

LaboStar® PRO TWF

Ultra pure water system



Benefits

- Upgrade with 30 or 60 l storage tank possible, manual dispense via tap
- Delivers two types of water: type III from the tank and type I from the dispenser
- Two different sterile filters available (with and without endotoxin retention)
- Easy module change due to quick-fit couplers
- · Low acquisition costs
- Scope of supply includes consumables
- Made in Germany

From tap water to ultra pure water - only one innovative step

The LaboStar® PRO TWF systems produce ultrapure water straight from your drinking water supply. This equipment incorporates a pre-filtration unit and a reverse osmosis membrane. The pure water collects in an integrated tank and is finally circulated through the polishing module by a circulation pump. The user can extract either Type III water from the built-in 7 I storage tank or Type I water from the dispenser with a quality of 0.055 μ S/cm, equivalent to 18.2 MΩ-cm, and TOC of between 1 and 10 ppb, depending on the system type.

The RO water quality is displayed as well. The LaboStar PRO TWF equipment can cost-effectively produce small amounts of analytical-grade water. The water produced exceeds current quality standards. System can be upgraded with 30 or 60 l storage tank.

A conductivity sensor constantly measures the product water purity in the recirculation loop. A positively charged 0.2 μm sterile filter at the dispenser removes bacteria and endotoxins, eliminating the need for an expensive ultra-filter. An uncharged 0.2 μm sterile filter is also available. LaboStar PRO TWF systems are delivered with the first set of modules and filters.

Typical applications

- · General analysis
- · Standard buffer
- AAS, GC, IC, ICP
- · Type III water
- QC Food Industry
- Pyrogen sensitive applications
- Cell and tissue culture

Special for LaboStar PRO TWF UV

- Micro- und molecular biology
- PCR, HPLC
- TOC analysis

Specifications

Pure water specifications	LaboStar PRO TWF	LaboStar PRO TWF UV
Delivery flow rate (I/h)	10	10
Ion retention rate (%)	96 max.	96 max.
Bacteria retention rate (%)	> 99	> 99
Particle retention rate (%)	> 99	> 99
Ultra pure water specifications		
Delivery flow rate (I/min)	1.2	1.2
Conductivity (µS/cm)	0.055	0.055
Resistivity (MΩ-cm)	18.2	18.2
TOC (ppb)	< 10	< 5
Bacteria (cfu/ml)	< 0.1*	< 0.1*
Endotoxins (EU/ml)	< 0.001*2	< 0.001*2
Particles > 0.2 µm (per ml)	< 1	< 1
Feed water specifications		
Feed water pressure (bar)	3 – 5	3 – 5
Conductivity (µS/cm)	< 1400	< 1400
Silt density index (SDI)	< 12* ³	< 12* ³
TOC (ppb)	< 1000	< 1000
Free chlorine (mg/l)	< 0.1	< 0.1
CO ₂ (mg/l)	< 20	< 20
Water temperature (°C)	5 - 30	5 - 30
Ambient temperature (°C)	5 - 35	5 - 35
Power requirements		
Power consumption (W)	270	270
Power supply (V/Hz)	100-240 V/ 50 - 60 Hz	100-240 V/ 50 - 60 Hz
Dimensions (H × W × D) (mm)	535 × 400 × 410	535 × 400 × 410
Weight, net (kg)	20.0	21.2
Weight, with packaging (kg)	24.0	25,.
Item Number	W3T324337	W3T324338

Consumables & Accessories

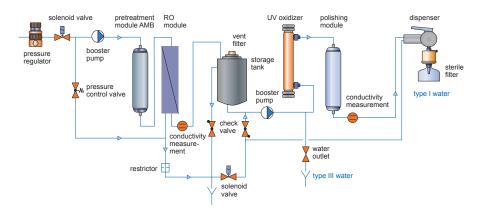
Consumatics & Accessories			
Item No.	Description	Change frequency*	
W3T197613	Pre-treatment module AMB	6 - 12 months	
W2T558521	UV replacement bulb	12 months	
W3T197694	Polishing Module MFIIID	6 - 12 months	
W3T199853	Polishing Module ILT	6 - 12 months	
W3T199279	Sterile filter 0.2 µm with endotoxin retention (pack of 3)	6 months	
W3T199209	Sterile filter 0.2 µm without endotoxin retention (pack of 3)	6 months	
W3T199768	Disinfection kit (pack of 3)	-	
W3T197620	RO Replacement module 10 l/h	2 - 3 years	
W3T199880	Vent Filter for the tank		
W3T199556	Wall bracket for LaboStar Pro TWF		
W3T324494	30 I Storage tank for LaboStar Pro TWF		
W3T324495	60 I Storage tank for LaboStar Pro TWF		
W3T314413	Degassing unit up to 150 l/h		
W2T897953	AQUASTOP 230 VAC/50 - 60 Hz		
W3T197588	Solenoid valve 230 V/50 Hz DN 10	water guard	

 $[\]ensuremath{^{\star}}$: Change intervals possibly shorter, depending on feed water and consumption.

RNase and DNase free water with the use of filter W3T199279.

RNase < 0,05 pg/ml

DNase < 10 pg/ml



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^{*1:} When sterile filter W3T199279 or W3T199209 is used (see accessories) with bubble point test: pressure > 50 psi/3.45 bar (with water) resp. 16 psi/1.10 bar (with 50% IPA) *2: incl. charged sterile filter (the water was free of any detectable RNase or DNase) *3: with a pre-filter