

formerly Aquionics, Berson, Hanovia and Orca GmbH



PureLine ECO

OPTIMIZED UV TREATMENT FOR INDUSTRIAL & COMMERCIAL APPLICATIONS Engineered with precision and driven by sustainability, ECO stands as a revolutionary UV system that promises to reshape the landscape of water treatment in the industrial & commercial markets

Efficiency: Reduce your carbon footprint significantly while maintaining the highest quality standards in your operations.

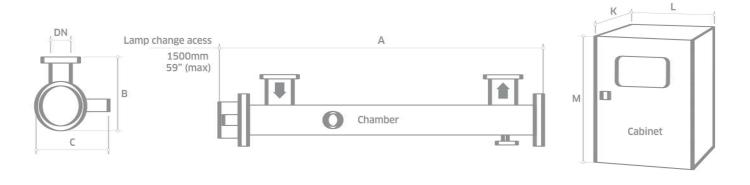
Compact Brilliance: ECO fits where others can't, delivering uncompromised results in limited space.

Optimized Performance: ECO is optimized for peak performance, providing consistently reliable water treatment solutions.





KEY FEATURES	WHAT IT GIVES YOU	BENEFITS FOR YOU		
INTELLIGENCE				
UV intensity monitor measuring active wavelengths	Continuous verification of performance with in-built low dose alarm	Easy to monitor and log system performance		
OPTIMIZATION				
UV water treatment	Protect your process waters from microbiological	Does not affect taste and colour of final product		
	contamination including chlorine resistant Cryptosporidium and Giardia	No chemicals		
Designed for the food and beverage industry	FDA-approved materials used for all wetted parts	Industry compliant materials		
	Optional chamber with tri-clamp connections and <0.38 µm internal finish	Sanitary design		
INTEGRATION				
Compact design	Can be fitted to skids	Easy integration		
	Can be retrofitted to existing process			



MODEL NUMBER	FLOW** m³/h [gpm]	MAX POWER (W)	LAMP (QTY)	CHAMBER	R SIZE mm				CHAMBER W	EIGHT kg [lb]
				A without wiper	A with wiper	В	С	DN	Chamber without wiper	Chamber with wiper
Pureline ECO 4	4.1 [18.1]	90	1	745 [29.3]	N/A	210 [8.3]	245 [9.5]	25 [1]	10.5 [23.1]	N/A
Pureline ECO 8	8.6 [37.9]	150	1	1245 [49]	N/A	230 [9.1]	255 [10.0]	50 [2]	18.5 [40.7]	N/A
Pureline ECO 15	17.8 [78.4]	250	1	1245 [49]	N/A	230 [9.1]	255 [10.0]	50 [2]	18.5 [40.7]	N/A
Pureline ECO 32	32 [140.9]	360	1	1785 [70.3]	N/A	230 [9.1]	275 [10.7]	80 [3]	24.3 [53.6]	N/A
Pureline ECO 40	41 [180.5]	380	1	1785 [70.3]	1895 [74.6]	335 [13.2]	305 [12.0]	80 [3]	42.7 [94.1]	49.0 [107.9]
Pureline ECO 85	86 [378.6]	750	2	1785 [70.3]	1895 [74.6]	335 [13.2]	320 [12.6]	100 [4]	42.7 [94.1]	49.0 [107.9]
Pureline ECO 125	125 [550.4]	1080	3	1785 [70.3]	1895 [74.6]	335 [13.2]	305 [12.0]	*125 [*5]	43.0 [94.8]	48.1 [106.0]
Pureline ECO 215	215 [946.6]	1420	4	1785 [70.3]	1895 [74.6]	455 [17.9]	355 [14.0]	150 [6]	66.4 [146.4]	73.7 [162.5]
Pureline ECO 225	225 [990.6]	1750	5	1785 [70.3]	1895 [74.6]	455 [17.9]	355 [14.0]	150 [6]	66.0 [145.5]	74.1 [163.4]
Pureline ECO 330	333 [1466.2]	1750	5	1790 [70.5]	1900 [74.8]	525 [20.7]	440 [17.3]	200 [8]	114.0 [251.3]	123.0 [271.2]
Pureline ECO 350	355 [1563.0]	2100	6	1790 [70.5]	1900 [74.8]	525 [20.7]	440 [17.3]	200 [8]	115.0 253.5]	124.0 [273.4]
Pureline ECO 380	385 [1695.1]	2440	7	1790 [70.5]	1900 [74.8]	525 [20.7]	440 [17.3]	200 [8]	116.0 [255.7]	125.0 [275.6]

All dimensions are approximate for clearance purposes only. We have a policy of continuous product development, exact drawings are available on

All specifications are subject to change without notification. Your distributor or our account manager can advise on correct sizing and specification





^{*}the DN is 150mm [6"] when connection type is Tri-clamp ** The disinfection capacity is based on 30mJ/cm2 at 99% (T10) UVT, end of lamp life

UV CHAMBER	
Material:	StSt 316L / 1.4404
Process (Mating) connection:	PN10 to EN1092-1
End plate:	Removable plate (Tri-Clamp up to ECO 225, then flanged for larger models)
Drain connection:	Tri-Clamp 1" BS4825
Degree of protection:	IP54 equivalent to NEMA 12
Internal finish:	< 0.5 µm Ra (Welds ground out)
Lamp type:	Low Pressure Amalgam
Expected lamp life:	9000 hours
UV sensor:	Dry sensor
Temperature sensor	Yes
Seals:	EPDM, FDA 21 CFR 177.2600
Maximum CIP temperature:	95°C with cabinet electrically isolated
Working fluid temperature:	0-40°C
Operating pressure:	10 bar
Mounting feet	Included on ECO 215 and above

OPTIONS	
Interconnecting cal	ole lengths: 5 m
Chamber internal f	inish: < 0.38 µm Ra (Welds ground out)
Document support	pack
Process (Mating) co models)	nnection: Tri-Clamp BS4825 (for ECO 225 and smaller
ANSI B 16.5 Class 1	.50 process (mating) connection
Carbon Steel Cabin	et material
NEMA 4X (IP56 equ	uivalent) cabinet
Wiper: Automatic (electrically driven) available on ECO 40 and above

MODEL NUMBER	LAMP (QTY)	STANDARD IP54, NEMA 12 CABINET SIZE mm [in]		2	OPTIONAL IP56, NEMA 4X CABINET SIZE * mm [in]			MAX. CABINET WEIGHT kg [lb]
		М	L	К	М	L	K	
Pureline ECO 4	1 lamp	535	470	180	665	547	240	20.5
- ECO 40	systems	[21.1]	[18.5]	[7.1]	[26.2]	[21.5]	[9.4]	[45.2]
Pureline ECO 85	2-3 lamp	600	490	210	750	557	270	29.1
- ECO 125	systems	[23.6]	[19.3]	[8.3]	[29.5]	[21.9]	[10.6]	[64.2]
Pureline ECO 215	4-5 lamp	700	500	210	850	567	270	36.9
- ECO 330	systems	[27.6]	[19.7]	[8.3]	[33.4]	[22.3]	[10.6]	[81.4]
Pureline ECO 350	6-7 lamp	800	510	210	950	567	270	45.9
- ECO 380	systems	[31.5]	[20.1]	[8.3]	[37.4]	[22.3]	[10.6]	[101.2]

^{*}Stainless steel only

Allow dimension L in front of cabinet for door opening and panel access.

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HMI: 7" Touch screen P rating: IP54 / NEMA 12 Power supply: 220 V ± 10%, 50/60 Hz, single phase, L+N+G Departing temperature range: 5-40°C Humidity: < 90% noN-condensing Control & Display: Stepless power adjustment 50-100% (excluding ECO 4-8) All alarms and warnings Fixed dose running Water temperature Lamp running hours Flow rate (m³/h or GPM) UV dose Lamp ready VFC Low UV dose Lamp end pre-warning (time adjustable) Lamp fault alarm Chamber over temperature alarm UV sensor fault alarm Temperature sensor fault alarm Temperature sensor fault alarm Warning for lamp and quartz resetting Input: Flow 4-20 mA Remote On/Off	Material:	Stainless Steel 304				
Interconnecting cable lengths: P rating: P rating: P rating: Dower supply: 220 V ± 10%, 50/60 Hz, single phase, L+N+G Doperating temperature range: 5-40°C	Controller:	UV Controller				
P rating: IP54 / NEMA 12 220 V ± 10%, 50/60 Hz, single phase, L+N+G Operating temperature range: 5-40°C dumidity: < 90% noN-condensing Control & Display: Stepless power adjustment 50-100% (excluding ECO 4-8) All alarms and warnings Fixed dose running Water temperature Lamp running hours Flow rate (m³/h or GPM) UV dose Lamp ready VFC Low UV dose Lamp and pre-warning (time adjustable) Lamp fault alarm Chamber over temperature alarm UV sensor fault alarm Temperature sensor fault alarm Temperature sensor fault alarm Warning for lamp and quartz resetting Input: Flow 4-20 mA T ₁₀ 4-20 mA Remote On/Off UV dose 4-20 mA Any system alarm VFC Any system warning VFC Low UV dose alarm VFC	HMI:	7" Touch screen				
Power supply: 220 V ± 10%, 50/60 Hz, single phase, L+N+G Departing temperature range: 5-40°C 4umidity: Stepless power adjustment 50-100% (excluding ECO 4-8) All alarms and warnings Fixed dose running Water temperature Lamp running hours Flow rate (m³/h or GPM) UV dose Lamp ready VFC Low UV dose Lamp fault alarm Chamber over temperature alarm UV sensor fault alarm Temperature sensor fault alarm Warning for lamp and quartz resetting Input: Flow 4-20 mA T ₁₀ 4-20 mA Remote On/Off UV dose 4-20 mA Any system alarm VFC Any system warning VFC Low UV dose alarm VFC Low UV dose alarm VFC	Interconnecting cable lengths:	5 m				
Operating temperature range: Humidity: < 90% noN-condensing Stepless power adjustment 50-100% (excluding ECO 4-8) All alarms and warnings Fixed dose running Water temperature Lamp running hours Flow rate (m³/h or GPM) UV dose Lamp ready VFC Low UV dose Lamp fault alarm Chamber over temperature alarm UV sensor fault alarm Temperature sensor fault alarm Warning for lamp and quartz resetting Input: Flow 4-20 mA T10 4-20 mA Remote On/Off UV dose 4-20 mA Any system alarm VFC Any system warning VFC Low UV dose alarm VFC Low UV dose alarm VFC	IP rating:	IP54 / NEMA 12				
Humidity: Stepless power adjustment 50-100% (excluding ECO 4-8) All alarms and warnings Fixed dose running Water temperature Lamp running hours Flow rate (m³/h or GPM) UV dose Lamp ready VFC Lamp end pre-warning (time adjustable) Lamp fault alarm Chamber over temperature alarm UV sensor fault alarm Temperature sensor fault alarm Warning for lamp and quartz resetting Flow 4-20 mA T ₁₀ 4-20 mA Remote On/Off Output: UV dose alarm VFC Any system warning VFC Low UV dose alarm VFC	Power supply:	220 V ± 10%, 50/60 Hz, single phase, L+N+G.				
Stepless power adjustment 50-100% (excluding ECO 4-8) All alarms and warnings Fixed dose running Water temperature Lamp running hours Flow rate (m³/h or GPM) UV dose Lamp ready VFC Low UV dose Lamp fault alarm Chamber over temperature alarm UV sensor fault alarm Temperature sensor fault alarm Warning for lamp and quartz resetting Input: Flow 4-20 mA Remote On/Off Output: UV dose 4-20 mA Any system alarm VFC Any system warning VFC Low UV dose alarm VFC	Operating temperature range:	5-40°C				
(excluding ECO 4-8) All alarms and warnings Fixed dose running Water temperature Lamp running hours Flow rate (m³/h or GPM) UV dose Lamp ready VFC Alarm & Warning: Low UV dose Lamp end pre-warning (time adjustable) Lamp fault alarm Chamber over temperature alarm UV sensor fault alarm Temperature sensor fault alarm Warning for lamp and quartz resetting Input: Flow 4-20 mA T ₁₀ 4-20 mA Remote On/Off Output: UV dose 4-20 mA Any system alarm VFC Any system warning VFC Low UV dose alarm VFC	Humidity:	< 90% noN-condensing				
Fixed dose running Water temperature Lamp running hours Flow rate (m³/h or GPM) UV dose Lamp ready VFC Alarm & Warning: Low UV dose Lamp end pre-warning (time adjustable) Lamp fault alarm Chamber over temperature alarm UV sensor fault alarm Temperature sensor fault alarm Warning for lamp and quartz resetting Plow 4-20 mA T ₁₀ 4-20 mA Remote On/Off UV dose 4-20 mA Any system alarm VFC Any system warning VFC Low UV dose alarm VFC	Control & Display:					
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Lamp ready VFC Low UV dose Lamp end pre-warning (time adjustable) Lamp fault alarm Chamber over temperature alarm UV sensor fault alarm Temperature sensor fault alarm Warning for lamp and quartz resetting Input: Flow 4-20 mA T ₁₀ 4-20 mA Remote On/Off UV dose 4-20 mA Any system alarm VFC Any system warning VFC Low UV dose alarm VFC		Flow rate (m³/h or GPM)				
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Lamp fault alarm Chamber over temperature alarm UV sensor fault alarm Temperature sensor fault alarm Warning for lamp and quartz resetting Input: Flow 4-20 mA T ₁₀ 4-20 mA Remote On/Off UV dose 4-20 mA Any system alarm VFC Any system warning VFC Low UV dose alarm VFC	Alarm & Warning:	Low UV dose				
Chamber over temperature alarm UV sensor fault alarm Temperature sensor fault alarm Warning for lamp and quartz resetting Input: Flow 4-20 mA T ₁₀ 4-20 mA Remote On/Off UV dose 4-20 mA Any system alarm VFC Any system warning VFC Low UV dose alarm VFC		Lamp end pre-warning (time adjustable)				
UV sensor fault alarm Temperature sensor fault alarm Warning for lamp and quartz resetting Input: Flow 4-20 mA T ₁₀ 4-20 mA Remote On/Off UV dose 4-20 mA Any system alarm VFC Any system warning VFC Low UV dose alarm VFC		Lamp fault alarm				
Temperature sensor fault alarm Warning for lamp and quartz resetting Input: Flow 4-20 mA T ₁₀ 4-20 mA Remote On/Off UV dose 4-20 mA Any system alarm VFC Any system warning VFC Low UV dose alarm VFC		Chamber over temperature alarm				
Warning for lamp and quartz resetting Input: Flow 4-20 mA T ₁₀ 4-20 mA Remote On/Off UV dose 4-20 mA Any system alarm VFC Any system warning VFC Low UV dose alarm VFC		UV sensor fault alarm				
nput: Flow 4-20 mA T ₁₀ 4-20 mA Remote On/Off UV dose 4-20 mA Any system alarm VFC Any system warning VFC Low UV dose alarm VFC		Temperature sensor fault alarm				
T ₁₀ 4-20 mA Remote On/Off UV dose 4-20 mA Any system alarm VFC Any system warning VFC Low UV dose alarm VFC		Warning for lamp and quartz resetting				
Remote On/Off Output: UV dose 4-20 mA Any system alarm VFC Any system warning VFC Low UV dose alarm VFC	Input:	Flow 4-20 mA				
Output: UV dose 4-20 mA Any system alarm VFC Any system warning VFC Low UV dose alarm VFC		T ₁₀ 4-20 mA				
Any system alarm VFC Any system warning VFC Low UV dose alarm VFC		Remote On/Off				
Any system warning VFC Low UV dose alarm VFC	Output:	UV dose 4-20 mA				
Low UV dose alarm VFC		Any system alarm VFC				
		Any system warning VFC				
Lamp fault alarm VFC		Low UV dose alarm VFC				
		Lamp fault alarm VFC				

Lamp preheat VFC

CE, UKCA, UL, FCC







PureLine ECO

Also available in our ECO product range...





fouling, lead to fewer CIP/SIP

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