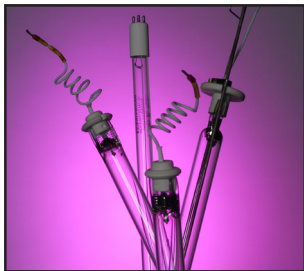


Smart controls –  
continuous  
monitoring and  
DOSE display.



Highly efficient,  
long life UV lamps.



Maintenance  
programs to ensure  
optimized system  
performance.



PharmaLine DL

## ENVIRONMENTALLY FRIENDLY DISINFECTION

*Our most rigorously developed and tested products ever created for Pharma. Disinfection has evolved, and we can prove it!*

Aquionics' new PharmaLine DL range of highly efficient and low energy UV systems for general disinfection of Pharmaceutical distribution loop process water.

If you'd like to provide sterility for your products, and purity for your process water, Aquionics UV is the right choice. No other technologies purify everything from raw materials through production lines to packaging.

We integrate seamlessly and easily into your existing production lines. We disinfect the water you use everywhere in your process. And, unlike some technologies, we produce no by-products. It's a simple indication of how useful, and effective, our UV systems actually are.



Food & Beverage



Marine



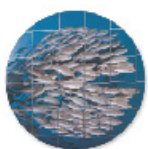
Pharmaceuticals



Electronics



Cosmetics & Toiletries



Aquaculture



Medical & Ophthalmic



UV Chamber		Cabinet	
Material:	St 316L/1.4404	Material:	Polyester coated carbon steel
Internal finish:	<0.38µm Ra max welds left as laid electropolished and passivated	Degree of protection:	IP65/NEMA 4
External finish:	Sateen polish (120 grit) electropolished and passivated	Supply voltages:	230V (207V to 253V) or 115V (104V to 164V) 50/60Hz
Process (mating) connections:	Tri-clamp to BS 4825	Operating temperature range:	+41°F to +104°F
Drain connection:	Tri-clamp to BS 4825	Relative humidity:	<90%
End plate:	Removable tri-clamp	Cooling fans:	No
Degree of protection:	IP65 equivalent to NEMA4 but not suitable for outside use	Cable length:	5m
Arc tube (lamp):	Low pressure amalgam/high purity quartz	External contacts:	4-20mA signal for UV intensity %, Volt Free Contacts for Lamp ON, Low UV warning
Arc tube enclosure:	High purity quartz		
Number of lamps:	1		
Expected lamp life:	12000-16000 hours		
Temperature sensor	No		
UV monitor	Wet UV monitor		
Working fluid temperature:	+41°F to +104°F		
Hydrostatically pressure tested:	Yes to PED requirements EN13445		
Maximum CIP temperature:	203°F with lamp off		
Operating/Design pressure:	6 bar / 7 bar		
Pressure loss:	Typically < 40 mbar		
Seals:	EPDM FDA approved		

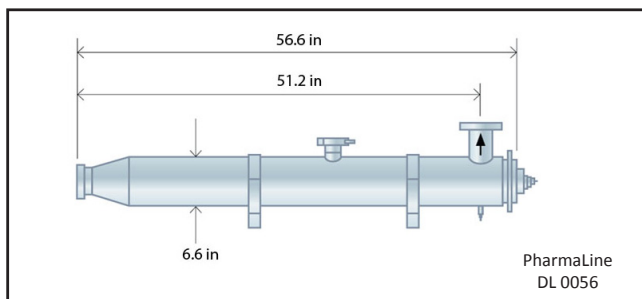
Features	
• Lamp on/off	• UV intensity %
• Remote start/stop	• Warning and trip messages
• Horizontal or vertical mounting	• Total hours run
• Remote mode	• Lamp fail
• Door interlocked cabinet isolator	• Low UV % intensity



PharmaLine DL

	Model	Flow Rate (gpm)	Flange (in)	Number of Lamps	Max Power (W)
<b>Disinfection Loop</b>	PharmaLine DL 0003	14	1	1	80
	PharmaLine DL 0008	22	1.5	1	80
	PharmaLine DL 0014	52	2	1	140
	PharmaLine DL 0023	83	2	1	270
	PharmaLine DL 0056	140	3	1	270
	PharmaLine DL 0128	594	6	1	500

The maximum disinfection capacity is based on a dose of 26mJ/cm<sup>2</sup> RED MS2 phage T<sub>10</sub> 98%



Options	
• Validation Support Pack	• Uvtronic control 230V (207 to 263V) CE and UL approved with pre calibrated DVGW compliant dry UV monitor
• Stainless Steel cabinet (304)	• CIP maximum 266°F with cabinet electrically isolated
• Printed operating, menu and safety guides available in Chinese, French, and German	

A HALMA COMPANY

Celebrating 85 Years of Pure Performance from the UV Technology Pioneers

