

RAINIER^{6.0}

Models LR6-355, LR6-555, LR6-855, LR6-1105
LR6-1405, LR6-1755

SPECIALITY, LIGHT COMMERCIAL DISINFECTION SOLUTIONS



RAINIER systems meet the same stringent global performance standards as NSF/ANSI 55, Class A systems, without the associated high-cost that typically accompanies these systems.

If microbiological protection is required for your commercial/industrial application along with the added security of continuous UV monitoring, then LUMINOR has the solution in the RAINIER^{6.0} series of ultraviolet disinfection systems.

RAINIER^{6.0} includes a discrete 254nm Teflon™ based UV sensor to continuously monitor the UV output produced by the system. Displayed on the LED screen in either “% UV Intensity” or “mW/cm²”, RAINIER^{6.0} provides the information that these demanding commercial systems require.

Constructed with highly polished 316L stainless reactors and industrial grade enclosures, RAINIER^{6.0} uses proven low pressure amalgam (LP-AM) offering stable output in both hot and cold water applications. Whether you are looking to control microbiological (bacteria & virus) issues in both hot or cold water with UVT levels as low as 50% or to reduce TOC in industrial grade waters, RAINIER has you covered.

Covering a wide variety of applications in both regulated and unregulated markets, RAINIER offers environmentally friendly disinfection at lower capital and operating costs than traditional disinfection solutions.

Product Features

- Discrete 254nm Teflon™ based UV sensor for continuous UV monitoring with the added benefit of anti-fouling materials
- Modular control panel with LED display for remaining lamp life, total running hours, audible & visual lamp failure, remote on and solenoid ready
- 316L stainless steel, polished reactors
- Designed & manufactured to ASME pressure vessel standards
- Reliable, industry proven low pressure amalgam (LP-AM) coated UV lamps with ceramic bases for durability, 12,000 hour lamp life
- Uniform lamp output in both hot or cold applications
- Flexible vertical or horizontal installation
- User friendly bayonet style lamp connector (quick ¼ turn removal with no extra tools needed)
- True gland seal retaining nut (no o-ring deformation as in competitive systems)
- Constant current electronic ballasts in a splash-proof (IP-54) case with audible and visual lamp failure indicators
- Splash proof ABS control box with constant current electronic ballast

Flexible Applications

DISINFECTION

choose your required dose for application that include restaurants, nursing homes, campgrounds, agricultural, food service, schools, marine, etc.

HOT WATER

for use in hot water applications including recirculation loops, showers, cooling towers, etc., designed for the reduction of legionella

LOW UVT

for applications where water quality may approach 70% or less, choose the LOW UVT systems to increase the operational performance and reduce nuisance alarms.

TOC

for the reduction of TOC (total organic carbon) using UV lamps at 185 nm output

FLOW RATES

35 GPM (132 lpm) LR6-355 series
58 GPM (220 lpm) LR6-555 series
85 GPM (322 lpm) LR6-855 series
110 GPM (416 lpm) LR6-1105 series
140 GPM (530 lpm) LR6-1405 series
175 GPM (662 lpm) LR6-1755 series



LUMI-LOC™

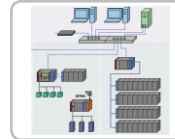
Troublesome lamp changes and broken sleeves no longer with LUMINOR's LUMI-LOC™ lamp connector. Lamp changes with an effortless 1/4 turn of the connector.....no fumbling with metal clips as in competitive systems.

UV Sensor Module - Included



Allows for the 254nm UV wavelength to be measured and displayed via the RAINIER controller. Sensor plugs directly into the controller and is mounted in the integral sensor port located on all RAINIER^{6.0} and RAINIER^{6.0} reactors. Order **RS-RUV** for normal and hot water flows, **RS-RUV-50** for Low UVT and **RS-RUV-TOC** for TOC applications.

Remote Monitoring (Dry Contacts) Output (capability only) - Included



Allows for the dry contact signal (on/off) provided by the RAINIER^{6.0} controller to be sent to a remote location. Can be used for remote-on, solenoid connection, PLC connection, remote alarm, remote visual, or many other options. **(Note:** Requires optional **210010** cable/connector as shown below).

OPTIONAL - Remote Monitoring Cable



Connector and 10 m (33') of cable to remotely control the RAINIER^{6.0} dry contact signal, Order Part Number **210010**.

Expandability Port - Included



IEP "infinite expandability port allows for system upgrades and "future-proofing". New options and expansion modules can communicate with main circuit board through this port.

Manufacturer's Warranty

LUMINOR UV systems are covered by the following warranty:

REACTORS - Ten (10) year Limited Warranty
ELECTRONICS - Three (3) year Limited Warranty
UV LAMPS - One (1) year Limited Warranty
QUARTZ SLEEVES - One (1) year Limited Warranty

Please refer to LUMINOR's complete warranty document for specific details, including conditions and exclusions. this document may be found on the web or by contacting LUMINOR directly.

Replacement Parts

System	Lamps (254 nm for disinfection)	Lamps (185 nm for TOC)	Lamps (254 nm for HOT WATER)	Sleeves	Ballast
LR6-355	RL-500A (1 required)	RL-500A-TOC (1 required)	RL-500A-HW (1 required)	RQ-500 (1 required)	RB-R1.2
LR6-555	RL-720A (1 required)	RL-720A-TOC (2 required)	RL-720A-HW (1 required)	RQ-500 (1 required)	RB-R1.2
LR6-855	RL-1000A (1 required)	RL-1000A-TOC (1 required)	RL-1000A-HW (1 required)	RQ-1000 (1 required)	RB-R1.2
LR6-1105	RL-720A (2 required)	RL-720A-TOC (2 required)	RL-720A-HW (2 required)	RQ-720 (2 required)	RB-K22
LR6-1405	RL-843A (2 required)	RL-843A-TOC (2 required)	RL-843A-HW (2 required)	RQ-843 (2 required)	RB-K22
LR6-1755	RL-1000A (2 required)	RL-1000A-TOC (2 required)	RL-1000A-HW (2 required)	RQ-1000 (2 required)	RB-K22

RAINIER	LUMINOR EQUIPMENT SPECIFICATIONS					
	RAINIER ^{6.0} , Light Commercial Amalgam UV systems, UV monitored					
MODEL (230 volt "2" systems include all variants)	LR6-355 LR6-355-HW LR6-355-50 LR6-355-TOC	LR6-555 LR6-555-HW LR6-555-50 LR6-555-TOC	LR6-855 LR6-855-HW LR6-855-50 LR6-855-TOC	LR6-1105 LR6-1105-HW LR6-1105-50 LR6-1105-TOC	LR6-1405 LR6-1405-HW LR6-1405-50 LR6-1405-TOC	LR6-1755 LR6-1755-HW LR6-1755-50 LR6-1755-TOC
Normal Flow Rate 30 mJ/cm ² @ 95% UVT	35 GPM (132 lpm) (8 m ³ /hr.)	58 GPM (220 lpm) (13.2 m ³ /hr.)	85 GPM (322 lpm) (19.3 m ³ /hr.)	110 GPM (416 lpm) (25 m ³ /hr.)	140 GPM (530 lpm) (31.8 m ³ /hr.)	175 GPM (662 lpm) (39.7 m ³ /hr.)
Hot Water Flow Rate 30 mJ/cm ² @ 75% UVT	22 GPM (83 lpm) (5 m ³ /hr.)	38 GPM (144 lpm) (8.6 m ³ /hr.)	60 GPM (227 lpm) (13.6 m ³ /hr.)	64 GPM (242 lpm) (14.5 m ³ /hr.)	81 GPM (306 lpm) (18.4 m ³ /hr.)	95 GPM (360 lpm) (21.6 m ³ /hr.)
LOW UVT Flow Rate 30 mJ/cm ² @ 50% UVT	14 GPM (53 lpm) (3.2 m ³ /hr.)	23 GPM (87 lpm) (5.2 m ³ /hr.)	35 GPM (133 lpm) (8 m ³ /hr.)	36 GPM (136 lpm) (8.2 m ³ /hr.)	45 GPM (170 lpm) (10.2 m ³ /hr.)	51 GPM (193 lpm) (11.6 m ³ /hr.)
TOC Flow Rate 150 mJ/cm ² @ 95% UVT	7 GPM (26 lpm) (1.6 m ³ /hr.)	12 GPM (45 lpm) (2.7 m ³ /hr.)	17 GPM (64 lpm) (3.9 m ³ /hr.)	22 GPM (83 lpm) (5 m ³ /hr.)	28 GPM (106 lpm) (6.4 m ³ /hr.)	35 GPM (132 lpm) (8 m ³ /hr.)
Alternate flow @ 16 mJ/cm ² at 95% UVT (US Public Health)	66 GPM ¹ 250 lpm ¹ 15 m ³ /hr. ¹	109 GPM ² 413 lpm ² 24.8 m ³ /hr. ²	167 GPM ² 632 lpm ² 37.9 m ³ /hr. ²	207 GPM ³ 784 lpm ³ 47 m ³ /hr. ³	263 GPM ⁴ 996 lpm ⁴ 59.7 m ³ /hr. ⁴	327 GPM ⁵ 1240 lpm ⁵ 74.3 m ³ /hr. ⁵
Alternate flow @ 40 mJ/cm ² at 95% UVT (NSF/EPA)	27 GPM 102 lpm 6.1 m ³ /hr.	44 GPM 167 lpm 10 m ³ /hr.	67 GPM 252 lpm 15.1 m ³ /hr.	84 GPM 318 lpm 19.1 m ³ /hr.	106 GPM 401 lpm 24.1 m ³ /hr.	131 GPM 496 lpm 29.8 m ³ /hr.
Port Size	1 1/2"	2"	2"	2 1/2"	3"	4"
Electrical	230V/50-60Hz. (IEC power cords required)					
Power Plug	European CEE 7/7, 3-wire for all 230V. - "2" suffix British Standard, BS 1363, 3-wire for all 230V. - "3" suffix Australian AS/NZ 3112, 3-wire for all 230V. - "4" suffix North American, NEMA 6-15, 3 prong - "5" suffix					
Lamp Watts	104	152	207	304	344	414
Power (watts)	120	170	220	320	360	430
Replacement Lamp (disinfection @ 254 nm)	RL-500A (1 required)	RL-720A (1 required)	RL-1000A (1 required)	RL-720A (2 required)	RL-843A (2 required)	RL-1000A (2 required)
Replacement Lamp (HOT WATER @ 254 nm)	RL-500A-HW (1 required)	RL-720A-HW (1 required)	RL-1000A-HW (1 required)	RL-720A-HW (2 required)	RL-843A-HW (2 required)	RL-1000A-HW (2 required)
Replacement Lamp (TOC @ 185 nm)	RL-500A-TOC (1 required)	RL-720A-TOC (2 required)	RL-1000A-TOC (1 required)	RL-720A-TOC (2 required)	RL-843A-TOC (2 required)	RL-1000A-TOC (2 required)
Replacement Sleeve	RQ-500 (1 required)	RQ-720 (1 required)	RQ-1000 (1 required)	RQ-720 (2 required)	RQ-843 (2 required)	RQ-1000 (2 required)
Chamber Material	316L Stainless Steel, A249 Pressure Rated Tubing, Polished & Passivated					
Controller Dimension	11.8 x 7.9 x 6.3" (30.0 x 20.1 x 16.0 cm)					
Reactor Dimensions	4 x 27.2 x 5.6" (10 x 69 x 14 cm)	4 x 35.8 x 5.6" (10 x 91 x 14 cm)	4 x 46.8 x 5.6" (10 x 119 x 14 cm)	6 x 35.8 x 7.9" (15 x 91 x 20 cm)	6 x 40.6 x 7.9" (15 x 103 x 20 cm)	6 x 46.8 x 7.9" (15 x 119 x 20 cm)
Maximum Operating Pressure	10.3 bar (150 psi)					
Optimum Water Temperature	2-60° C (36-148° F)					
254nm UV Intensity Monitor	Yes					
Remote-On	Yes					
Dry Contacts (solenoid ready)	Yes					
4-20 mA Output	Yes					
Lamp Age Counter	Yes					
Visual Lamp-Out Indicator	Yes					
Audible Lamp-Out Alarm	Yes					
Shipping Weight	call factory	call factory	call factory	call factory	call factory	call factory

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