

Universal Light Source, Inc. □

INTEGRAL GERMICIDAL LAMPS AND SLEEVES

Equipment designers of Point-of-Use (POU) water systems can achieve significant economy using ULSI's UV cells. These □ integral assemblies have either soft or hard glass germicidal lamps mounted permanently inside a hard glass sleeve and facilitate the use of a unique power supply design. □

When the water is not flowing and the lamp remains on, the first cup of water will be warm. If the lamp is shut off, the first cup of □ water will not be properly disinfected. The solution is to use a power supply design in which the lamp operates at a substantially □ lower current when the flow is shut off. Inexpensive electronic ballasting is obtainable and can be fed by a 12V DC power □ inverter. Many small appliances commonly use such inverters, which plug into a wall outlet. It simplifies the regulatory approval □ process associated with a new appliance design that normally uses higher voltage sources. □

UV cells are designed for use with off-the-shelf filter housings, a number of which accept sleeve diameters of 15mm and 23mm. □ The filter head usually requires some modification. The smaller diameter; i.e., the 15mm UV cell, permits minimal machining of □ some compact housing filter heads. □

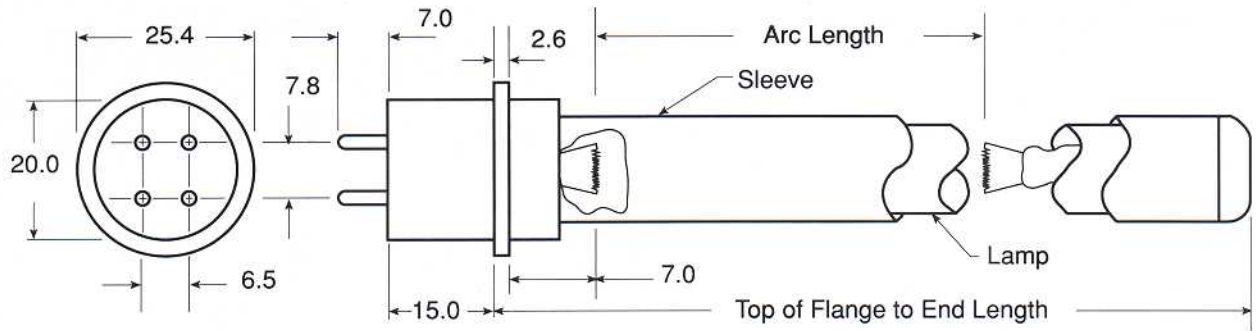
These integral lamp and sleeve assemblies may be custom designed for a wide range of POU applications. The equipment □ designer can increase UV output by choosing a 15mm (T5) hard glass lamp and a 23mm sleeve. Standard ballasts are available for most sizes and electronic ballasts are easily obtained for custom sizes. □

A UV cell can be mounted in any position. Electrical connections are at one end for use in instant start, preheat, or rapid start □ mode. Standard units employ a four-pin circline ceramic base and you can specify "hard-wired without base." Custom caps and □ lampholders can be designed to fit your requirements. The equipment manufacturer can provide proprietary replacement UV □ cells on an annual lifecycle basis ensuring safe and proper reinstallation of the cell and integrity of the original system. □

Cells can be designed to fit other applications and engineering assistance is available. Feel free to contact us; we would be □ pleased to discuss a UV cell for your equipment design.

SOFT GLASS LAMPS IN HARD GLASS SLEEVES, PREHEAT-START, FOUR-PIN CIRCLINE CERAMIC BASE

Standard □ Cell □ Models	Mechanical Characteristics						Typical Operating Characteristics						
	Std Pkg Qty ⁽¹⁾	Lamp Dia	Sleeve Dia	Top of Flange to End Length ⁽²⁾		Arc Length		Lamp Watts	Lamp Current	Lamp Voltage	UV Output ⁽³⁾	Output ⁽³⁾ at 1 meter	Rated ⁽⁴⁾ Life
	units	mm	mm	in	mm	in	mm	W	mA	V	W	μW/cm ²	hrs
GCL212/11.4/CELL/C	4	12	15	8.94	227.0	7.56	192.0	5.3	100	62	1.7	18.6	9000
GCL241/11.4/CELL/C	4	12	15	10.09	256.0	8.70	221.0	5.6	100	67	1.9	19.7	9000
GCL300/11.4/CELL/C	4	12	15	12.40	315.0	11.02	280.0	6.6	100	80	2.2	24.0	9000
GCL320/11.4/CELL/C	4	12	15	13.19	335.0	11.81	300.0	7.0	100	82	2.3	24.7	9000
GCL490/11.4/CELL/C	4	12	15	19.88	505.0	18.5	470.0	9.7	100	135	3.2	37.4	9000



All dimensions in millimeters

(1) Available in bulk-packs of 30 GERMIPAK UV CELLS per carton to reduce freight costs.
 (2) All values are nominal. Length tolerances are ±3.0mm.
 (3) Approximate output at 253.7nm at 100 hours of use under laboratory conditions. Subject to wide variations due to application conditions.
 (4) Estimated life when operated at HI-LO conditions as encountered in normal residential kitchen sinks.