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Aqualight[®]

ULTRAVIOLET DISINFECTION SYSTEM



GDW[™]

Aqua Lightech Limited

www.aqualightech.com



Aqualight[®] SLT

ULTRAVIOLET DISINFECTION SYSTEM

Ultraviolet (UV-C rays /253.7 nm) water disinfection system is a unique and rapid method of water disinfection without the use of heat or chemicals to effectively destroys bacteria, virus, mold & algae. Ultraviolet (UV) light treatment is a widely recognized and proven method of disinfection of water and has several advantages over other disinfection methods such as chlorination, ozonation, etc . UV light does not add anything to the water, such as undesirable color, odor, taste or flavor, nor does it generate harmful byproducts. It adds only energy in the form of ultraviolet radiation. Also, UV disinfection requires only a fraction of the contact times required by other disinfection methods. It is fast, efficient, effective, economical and environmentally-friendly.

Advantages: Effective Economical Safe Fast & Easy Automatic Chemical Free

Applications: Drinking Water Food Processing Medical Industries





Aqualight®

SPECIFICATIONS

Model	SLT12		SLT24	SLT36	SLT50	SLT80	SLT100	SLT150
Flow Rate	12 gpm (3 m3/hr.)	24 gpm (6 m3/hr.)	36gpm (8 m3/hr.)	50 gpm (11 m3/hr.)	80 gpm (18 m3/hr.)	100 gpm (23 m3/hr.)	150 gpm (34 m3/hr.)	
Inlet/Outlet Ports	1"		1 – 1/2"	2"		3"		
Dimensions	92.5x18x25cm(36.4"x7"x9.8")		92.5x25x42cm (36.4"x9.8"x16.5")			92.5x32x41cm (36.4"x12.6"x16.1")		
Material	Stainless Steel #304 (SS316 on Request)							
Lamp Part#/Watts	G36T5L/4-LT, 39 Watts, 425mA, 254nm				GHO36T5L/4-LT, 80 Watts, 800mA, 254nm			
Rated Life	10,000 Hours							
Power Consumption	50W	100W	150W	193W	265W	390W	590W	
Quartz Sleeve Part#	QS900, length 900mm							
Ballast Part#	GDB42540L2 100V.-240V./50-60Hz.				GDB80095L2, 100V.-240V./50-60Hz.			
Numbers of Lamp/ Quartz Sleeve/Ballast	1	2	3	2	3	4	6	

*Flow Rate Stated at 30mJ/cm² based on 95% UVT of EOL (End of Lamp Life)

Control

Timer Monitor #GDT-9000
Input Power : AC85~265V. Power ON-OFF Switch
Lamp Operating Hours up to 9,000 hours
End of Lamp Life Alarm and Resettable
Lamp Operating Green LED, Audible Lamp Failure with Red
Total Running Days up to 9,999 days
Dry Contacts (Lamp or Power Fails)

Option

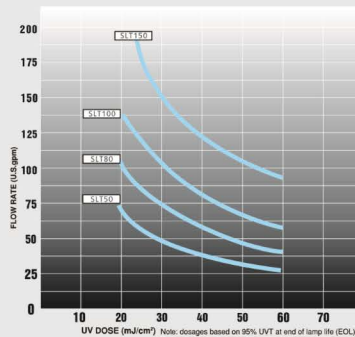
Ultraviolet Intensity Monitor, 4-20mA Output
Temperature Monitor
Sanitary Connections

Operating Parameters

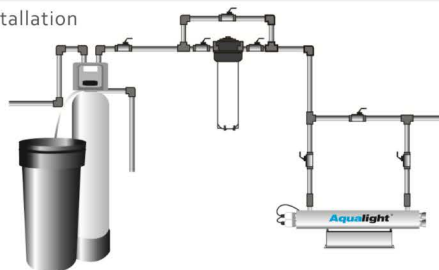
- + Max. operating pressure 125psi (8.62 bar)
- + Ambient water temperature 2-40°C (36-104°F)
- + Iron < 0.3ppm (0.3 mg/L)
- + Hardness < 7gpg (120mg/L)
- + Turbidity < 1 NTU
- + UV Transmittance > 75%

General

- + 4-Log (99.99%) Reduction in Bacteria
Viruses and Protozoan Cysts
- + SS304 Construction Material, SS316 on Request
- + Horizontal Installation



Typical Installation



Warranty Aqualight® ultraviolet disinfection systems carry a TWO year warranty on the stainless steel reactor chamber, a one year warranty on UV lamp, quartz sleeve and other components.



Aqualight[®] SUV

ULTRAVIOLET DISINFECTION SYSTEM

Ultraviolet (UV-C rays /253.7 nm) water disinfection system is a unique and rapid method of water disinfection without the use of heat or chemicals to effectively destroys bacteria, virus, mold & algae. Ultraviolet (UV) light treatment is a widely recognized and proven method of disinfection of water and has several advantages over other disinfection methods such as chlorination, ozonation, etc . UV light does not add anything to the water, such as undesirable color, odor, taste or flavor, nor does it generate harmful byproducts. It adds only energy in the form of ultraviolet radiation. Also, UV disinfection requires only a fraction of the contact times required by other disinfection methods. It is fast, efficient, effective, economical and environmentally-friendly.

Advantages: Effective Economical Safe Fast & Easy Automatic Chemical Free

Applications: Drinking Water Food Processing Medical Industries





Aqualight®

SPECIFICATIONS

Model	SV50	SV80	SV100	SV150	SV200	SV250	SV300	SV350	SV400	SV500	SV600
Flow Rate gpm(m3/hr.)	50 (11)	80 (18)	100 (23)	150 (34)	200 (45)	250 (57)	300 (68)	350 (80)	400 (91)	500 (115)	600 (136)
Inlet/Outlet Flange	2"		3"		4"				6"		
Dimensions	92.5x25x37cm (36.4"x9.8"x14.6")	92.5x25x42cm (36.4"x9.8"x16.5")	92.5x32x41cm (36.4"x12.6"x16.1")		159x39x51cm(62.6"x15.4"x20")				159x39x54cm (62.6"x15.4"x21.2")		159x39x60cm (62.6"x15.4"x23.6")
Material	Stainless Steel #304 (SS316 on Request)										
Detachable Control Panel	30x17x40cm (11.8"x6.7"x15.7")	35x18x46cm (13.8"x7"x18.1")	35x18x46cm (13.8"x7"x18.1")	42x20x52cm(16.5"x7.9"x20.5")			42x22x62cm(16.5"x8.7"x24.4")				42x22x72cm (16.5"x8.7"x28.4")
Lamp Part #/Watts	GHO36T5L/4-LT, 80 Watts, 800mA, 254nm				GHO64T5L/4-LT, 155 Watts, 800mA, 254nm						
Rated Life	10,000 Hours										
Power Consumption	193W	265W	390W	590W	725W	910W	1080W	1255W	1425W	1710W	2050W
Quartz Sleeve Part#	QS900, length 900mm				QS1560, length 1560mm						
Ballast Part#	GDB80095L2, 100V.-240V./50-60Hz.				GDB800155L2, 100V.-240V./50-60Hz.			GDB800310L2, 200V.-300V./50-60Hz			
Numbers of Lamp/ Quartz Sleeve	2	3	4	6	4	5	6	7	8	10	12
Numbers of Ballast	2	3	4	6	4	5	6	7	4	5	6

*Flow Rate Stated at 30mJ/cm2 based on 95% UVT of EOL (End of Lamp Life)

Control

Timer Monitor #GDT-9000
Input Power : AC85-265V. Power ON-OFF Switch
Lamp Operating Hours up to 9,000 hours
End of Lamp Life Alarm and Resettable
Lamp Operating Green LED, Audible Lamp Failure with Red
Total Running Days up to 9,999 days
Dry Contacts (Lamp or Power Fails)



Option

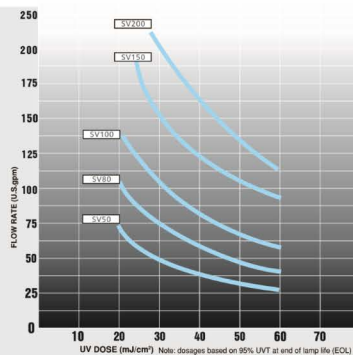
Ultraviolet Intensity Monitor, 4-20mA Output
Temperature Monitor
Sanitary Connections

Operating Parameters

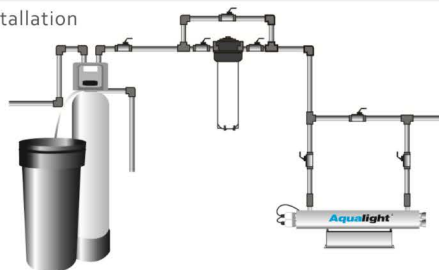
- + Max. operating pressure 125psi(8.62 bar)
- + Ambient water temperature 2-40°C (36-104°F)
- + Iron < 0.3ppm (0.3 mg/L)
- + Hardness < 7gpg (120mg/L)
- + Turbidity < 1 NTU
- + UV Transmittance > 75%

General

- + 4-Log(99.99%) Reduction in Bacteria Viruses and Protozoan Cysts
- + SS304 Construction Material, SS316 on Request
- + Horizontal Installation



Typical Installation



Warranty Aqualight® ultraviolet disinfection systems carry a TWO year warranty on the stainless steel reactor chamber, a one year warranty on UV lamp, quartz sleeve and other components.



Aqualight® PMTOC

ULTRAVIOLET TOC REDUCTION SYSTEM

The TOC Reduction systems are designed specifically for the reduction of total organic carbon (TOC) levels. These systems are designed with shorter wavelength UV lamps emitting their spectral output at 185nm. These "shorter" wavelength lamps emit more energy than standard 254nm lamps producing hydroxyl free radicals (OH) which is turn oxidizes most organics into carbon dioxide (CO₂) and water (H₂O).

These systems are designed specifically for the treatment of ultrapure waters such as those found in the production of semiconductors and other processes requiring water with extremely low levels TOC. All TOC Reduction systems produce UV dosages in excess 120mJ/cm² at the end of lamp life.





Aqualight®

SPECIFICATIONS

Model	PMTOC-1	PMTOC-3	PMTOC-6	PMTOC-8	PMTOC-10
Flow Rate	1gpm, .38lpm, 0.25m3/hr	3gpm, 11.5lpm, 0.7m3/hr	6gpm, 22.7lpm, 1.4m3/hr	8gpm, 30.2lpm, 1.8m3/hr	10gpm, 38lpm, 2.3m3/hr
Inlet/Outlet	1/2"	1/2"	3/4"	3/4"	3/4"
Dimensions	46x6.5cm(18.5"x2.5")	98x6.5cm(39"x2.5")	63x8.9cm(25"x3.5")	82x8.9cm(33"x3.5")	98x8.9cm(39"x3.5")
Lamp Watts	19W	39W	50W	65W	80W
IC Controller	Part Number : BAP40365, 100V.-250V./50-60Hz.		Part Number : BAP100365, 100V.-250V./50-60Hz.		
★ Flow Rate Stated at 120mJ/cm2 base on 95% UVT of EOL (End of Lamp Life)					

Control

- + Lamp Operating LED
- + Audible Lamp Failure
- + Lamp Life 365 Days Countdown
- + Countdown Resettable
- + Total Running Days
- + Lamp Replacement Reminder
- + Deferred Alarm(4 times max.)
- + Dry Contacts

Operating Parameters

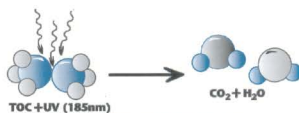
- + Max. operating pressure 125psi(8.62 bar)
- + Ambient water temperature 2-40°C (36-104°F)
- + Iron < 0.3ppm (0.3 mg/L)
- + Hardness < 7gpg (120mg/L)
- + Turbidity < 1 NTU
- + UV Transmittance > 75%

General

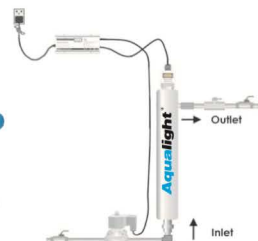
- + 4-Log(99.99%) Reduction in Bacteria
- + Viruses and Protozoan Cysts
- + SS304 Construction Material,SS316 on Request
- + Vertical or Horizontal Installation

Replacement Parts

Lamp, GPH330T5VH-LT	Quartz Sleeve, QS375 & Spring, SPRING4506	For PMTOC-1
Lamp, G36T5VH-LT	Quartz Sleeve, QS890 & Spring, SPRING4506	For PMTOC-3
Lamp, GHO512T5VH-LT	Quartz Sleeve, QS542 & Spring, SPRING4506	For PMTOC-6
Lamp, GHO702T5VH-LT	Quartz Sleeve, QS732 & Spring, SPRING4506	For PMTOC-8
Lamp, GHO36T5VH-LT	Quartz Sleeve, QS890 & Spring, SPRING4506	For PMTOC-10



* Causes photochemical reactions
 * Promotes hydroxyl (OH·) free radicals
 * Oxidizes most organics into CO₂ and H₂O
 Note : Reductions in the order of < few ppb can be achieved. TOC reduction and microbial destruction occurs with the use of 185nm lamps.



Warranty Aqualight® ultraviolet disinfection systems carry a TWO year warranty on the stainless steel reactor chamber, a one year warranty on UV lamp, quartz sleeve and other components.



Aqualight® TOC

ULTRAVIOLET TOC REDUCTION SYSTEM

The TOC Reduction systems are designed specifically for the reduction of total organic carbon (TOC) levels. These systems are designed with shorter wavelength UV lamps emitting their spectral output at 185nm. These "shorter" wavelength lamps emit more energy than standard 254nm lamps producing hydroxyl free radicals (OH) which in turn oxidizes most organics into carbon dioxide (CO₂) and water (H₂O).

These systems are designed specifically for the treatment of ultrapure waters such as those found in the production of semiconductors and other processes requiring water with extremely low levels TOC. All TOC Reduction systems produce UV dosages in excess 120mJ/cm² at the end of lamp life.



**Aqualight®****SPECIFICATIONS**

Model	LTOC5	LTOC15	LTOC25	LTOC40	PTOC55	PTOC75	PTOC100	PTOC125	PTOC150
Flow Rate gpm(m3/hr.)	5 (1.2)	15 (3.4)	25 (5.7)	40 (9)	55 (12)	75 (17)	100 (23)	125 (28)	150 (34)
Inlet/Outlet Flange	1"			2"			3"		
Dimensions	92.5x25x37cm (36.4"x9.8"x14.6")		92.5x32x41cm (36.4"x12.6"x16.1")		159x39x51cm (62.6"x15.4"x20")		159x39x54cm (62.6"x15.4"x21.2")		159x39x60cm (62.6"x15.4"x23.6")
Material	Stainless Steel #304 (SS316 on Request)								
Plastic Controller Box	x	x	x	x	42x20x52cm (16.5"x7.9"x20.5")	42x22x62cm(16.5"x8.7"x24.4")			42x22x72cm (16.5"x8.7"x28.4")
Lamp Part#/Watts	GHO36T5VH, 87 Watts, 800mA, 254nm				GHO64T5VH, 155 Watts, 800mA, 254nm				
Rated Life	10,000 Hours								
Power Consumption	107W	207W	404W	605W	725W	1080W	1425W	1710W	2050W
Quartz Sleeve Part#	QS890, length 890mm				QS1560, length 1560mm				
Ballast Part#	GDB80095-TOC, 100V.-240V./50-60Hz.				GDB800155-TOC, 100V.-240V./50-60Hz				
Numbers of Lamp/Quartz Sleeve/Ballast	1	2	4	6	4	6	8	10	12

*Flow Rate Stated at 120mJ/cm2 based on 95% UVT of EOL (End of Lamp Life)

Control

- Audible Lamp Failure
- Lamp Operation Indicator
- Hours Running Meter (non-resettable), log up to 99,999 hours
- Dry Contacts (Relay)
- CE Certificate

Option

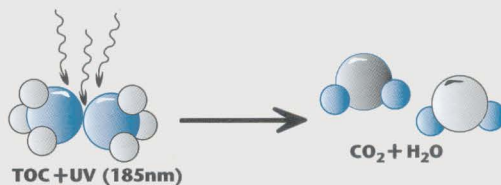
- Temperature Monitor
- Sanitary Connections

Operating Parameters

- + Max. operating pressure 125psi(8.62 bar)
- + Ambient water temperature 2-40°C (36-104°F)
- + Iron < 0.3ppm (0.3 mg/L)
- + Hardness < 7gpg (120mg/L)
- + Turbidity < 1 NTU
- + UV Transmittance > 75%

General

- + 4-Log(99.99%) Reduction in Bacteria
- + Viruses and Protozoan Cysts
- + SS304 Construction Material, SS316 on Request
- + Horizontal Installation



- * Causes photochemical reactions
- * Promoted hydroxyl (OH-) free radicals
- * Oxidizes most organics into CO₂ and H₂O

Note : Reductions in the order of < few ppb can be achieved. TOC reduction and microbial destruction occurs with the use of 185nm lamps.

Warranty Aqualight® ultraviolet disinfection systems carry a TWO year warranty on the stainless steel reactor chamber, a one year warranty on UV lamp, quartz sleeve and other components.



Aqua Lighttech Limited

www.aqualighttech.com



Aqualight[®]

ultraviolet

Replacement Parts

Accessories

get genuine.

GDW[™]

Aqua Lightech Limited

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Why Electronic Ballast? Electronic ballasts become the standard in the lighting industry. They allow significant energy and money saving in nearly all applications. The lamp operation is flicker free and the ballast produces virtually no noise or hum. Electronic ballasts are more efficient than magnetic ballasts in converting input power to the proper lamp power. The operation of UV lamps at higher frequencies reduces and losses, resulting in an overall lamp-ballast efficiency increase of 15% to 20%.



Advantages :

- ✦ High Efficiency
- ✦ Lighter Weight and Smaller Size
- ✦ High Power Factor
- ✦ Insensitivity to Line Voltage Variation
- ✦ Operation on Multiple Supply Voltages






Basic Controllers

Model	Description	Application
 BAP2011	<ul style="list-style-type: none"> •Input 110V./50-60Hz. •Operate one lamp 6 - 18 watts, 425mA •Lamp operating LED •Audible lamp failure 	PLT1, PLT2
 BAP2022	<ul style="list-style-type: none"> •Input 220V./50-60Hz. •Operate one lamp 6 - 18 watts, 425mA •Lamp operating LED •Audible lamp failure, 	PLT1, PLT2
 BAP4011	<ul style="list-style-type: none"> •Input 110V./50-60Hz. •Lamp operating LED •Audible lamp failure •Operate one lamp 10-40watts, 425mA •5V. Output (connect with GDCT-365) •Dry Contacts(optional) 	PLT4/PLT6/PLT8/PLT12, PV1/PV2/PV4/PV6/ PV8/PV12
 BAP4022	<ul style="list-style-type: none"> •Input 110V./50-60Hz. •Lamp operating LED •Audible lamp failure •Operate one lamp 10-40watts, 425mA •5V. Output (connect with GDCT-365) •Dry Contacts(optional) 	PLT4/PLT6/PLT8/PLT12, PV1/PV2/PV4/PV6/ PV8/PV12

Advanced Controllers

Model	Description	Application
 BAP40365	<ul style="list-style-type: none"> •Universal voltages 100- 250V./50-60Hz. •Operate one lamp 10 - 40 watts, 425mA •Lamp operating LED, Audible lamp failure, •Lamp life 365 days countdown •Countdown resettable •Lamp replacement reminder •Deferred alarm, 4 time max. •Total running days, Dry contacts 	PV1T/PV2T/PV4T/PV6T/ PV8T/PV12T, PTM2/PTM4/PTM6/PTM8/PTM12
 BAP100365	<ul style="list-style-type: none"> •Universal voltages 100- 250V./50-60Hz. •Operate one lamp 30 - 100 watts, 800mA •Lamp operating LED, Audible lamp failure, •Lamp life 365 days countdown •Countdown resettable •Lamp replacement reminder •Deferred alarm, 4 time max. •Total running days, Dry contacts 	PV18T/PV24T/PV35T/ PV42T/PV52T, PTM18/PTM24/PTM35/PTM42/ PTM52, WPS

Monitored Controllers

Model	Description	Application
 BAP40365MS	<ul style="list-style-type: none"> •Universal voltages 100- 250V./50-60Hz. •Operate one lamp 10 - 40 watts, 425mA •UV relative intensity in %, Low UV alarm, 2-Stage Power •Lamp operating LED, Audible lamp failure, •Lamp life 365 days countdown •Countdown resettable •Lamp replacement reminder •Deferred alarm, 4 time max. •Total running days •Dry contacts, 4-20mA output 	PTM2S/PTM4S/PTM6S/ PTM8S/PTM12S,
 BAP100365MS	<ul style="list-style-type: none"> •Universal voltages 100- 250V./50-60Hz. •Operate one lamp 30 - 100 watts, 800mA •UV relative intensity in %, Low UV alarm, 2-Stage Power •Lamp operating LED, Audible lamp failure, •Lamp life 365 days countdown •Countdown resettable •Lamp replacement reminder •Deferred alarm, 4 time max. •Total running days •Dry contacts, 4-20mA output 	PTM18S/PTM24S/PTM35S/ PTM42S/PTM52S, WPS
 GDS254NM1S-V	<ul style="list-style-type: none"> •UV Sensor, Stainless steel (316), 1/2" •Voltage signal interfaces •Low pressure lamp, UVC 254nm 	BAP40365MS, BAP100365MS
 GDS254NM1S-C	<ul style="list-style-type: none"> •UV Sensor, Stainless steel (316), 1/2" •Current signal interfaces •Low pressure lamp, UVC 254nm 	Optional
 YRJ45-420	<ul style="list-style-type: none"> •4-20mA "Y" Cable 	Optional





Model	Description	Application
 GDB42540L2	<ul style="list-style-type: none"> •Universal voltages 100- 250V./50-60Hz. •Operate 425mA lamp 21- 40 watts 	<ul style="list-style-type: none"> •Lamp operating LED •Audible lamp failure, Dry contacts SLT12/SLT24/SLT36
 GDB80095L2	<ul style="list-style-type: none"> •Universal voltages 100- 250V./50-60Hz. •Operate 800mA lamp 35- 95 watts 	<ul style="list-style-type: none"> •Lamp operating LED •Audible lamp failure, Dry contacts SLT50/SLT80/SLT100/SLT150, SV50/SV80/SV100/SV150.
 GDB800155L2	<ul style="list-style-type: none"> •Universal voltages 100- 250V./50-60Hz. •Operate 800mA lamp 90- 155 watts 	<ul style="list-style-type: none"> •Lamp operating LED •Audible lamp failure, Dry contacts SV200/SV250/ SV300/SV350.
 GDB800310L2	<ul style="list-style-type: none"> •Input 200- 305V./50-60Hz. •Operate Two 800mA lamps 90- 155 watts 	<ul style="list-style-type: none"> •Lamp operating LED •Audible lamp failure, Dry contacts SV400/SV500/SV600
 GDB80095-TOC	<ul style="list-style-type: none"> •Universal voltages 100- 250V./50-60Hz. •Operate TOC 800mA lamp 35- 95 watts 	<ul style="list-style-type: none"> •Lamp operating LED •Audible lamp failure, Dry contacts LTOC5/LTOC15/LTOC25 /LTOC40, PTOC15/PTOC25/PTOC40
 GDB800155-TOC	<ul style="list-style-type: none"> •Universal voltages 100- 250V./50-60Hz. •Operate TOC 800mA lamp 90- 155 watts 	<ul style="list-style-type: none"> •Lamp operating LED •Audible lamp failure, Dry contacts PTOC55/PTOC75
 GDB800310-TOC	<ul style="list-style-type: none"> •Input 200- 305V./50-60Hz. •Two TOC 800mA lamps 90- 155 watts 	<ul style="list-style-type: none"> •Lamp operating LED •Audible lamp failure, Dry contacts PTOC100/PTOC150
 GDT-9000	<ul style="list-style-type: none"> •Universal voltage AC85~265V. •Lamp Life End Alarm, Reset 	<ul style="list-style-type: none"> •Lamp Operating LED, Audible Lamp Falls •Total Running Days, Dry Contacts SLT, SUV, LTOC, PTOC
 GDM20	<ul style="list-style-type: none"> •Monitor, Universal Voltage AC85~265V, Power 1W. •Low UV Intensity and Lamp Life Alarm, Dry Contacts (3A/250VAC) 	<ul style="list-style-type: none"> •4-segment visual display indicating UV intensity in %, Lamp operating hours, lamp life end alarm SLT, SUV
 GDS254NM25-V	<ul style="list-style-type: none"> •UV Sensor, Stainless steel (316), 1" • Voltage signal interfaces 	<ul style="list-style-type: none"> •Low pressure lamp, UVC 254nm SLT, SUV, (with GDM20)
 GDS254NM25-C	<ul style="list-style-type: none"> •UV Sensor, Stainless steel (316), 1" • Current signal interfaces 	<ul style="list-style-type: none"> •Low pressure lamp, UVC 254nm Optional






Electronic IC Controllers Model : BAP40365 - BAP100365




- Default Screen Display : Lamp Life Days (365 days to 1 day) 
- Total Running Days of Ballasts Controller : Press "setting" button Less than 2 Seconds 
- Press "setting" button again or after 10 seconds, then screen will return default display

1) End of Lamp Life : At "0" day, screen will display "A3"

- i. Alarm: Red Light Flashing, Buzzer 1 second ON, 5 seconds OFF 
- ii. Deferred Alarm up to 4 times: Press and Hold On "setting" Button 5 second till screen display "dELy" then release Button will display "7" days and none audible chirp but Red Light still Flashing  
- iii. Must replace a new lamp to manually resetting Lamp Life Valid Days (365 days) of Controller for system to terminate alarm after the final "7" days

2) Change Lamp instructions

- i. Disconnect Power Supply
- ii. Remove expired (or failure) lamp then Install new lamp
- iii. Press and Hold On "setting" button 10 seconds, screen display "rSEt", after 2 Seconds, you can read "365" again from screen and hear an audible tone, Then release "setting" button. 

3) Lamp Failure : Screen display valid days freeze, Red Light Flashing, Buzzer second ON, 1 second OFF. The system will remain in this state until change new lamp.

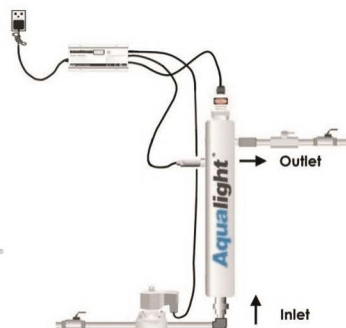
4) Ballasts Failure : Blank Screen

DRY CONTACTS

The Dry Contacts are typically used to operate solenoid valve. When lamp or power fails, the dry contact relay will be activated to operate solenoid valve, horn, buzzer or remote light. (NOTE: Any remote piece of equipment hooked up to the dry contacts must obtain their power from another source)

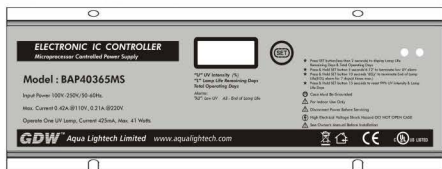
These dry contacts can be wired for a normally open (NO) or normally closed (NC) operation. The dry contacts will remain either closed (NC) or open (NO) until UV lamp in normal operation.

Example: solenoid valve (normal closed) can be wired (NO), the valve will be closed when lamp fails.





Electronic IC Controllers Model : BAP40365MS - BAP100365MS



- 4-segment visual display indicating UV- irradiation intensity relative in %, Lamp Life Remaining Days, Total Running Days of Ballasts Controller.
- Default Screen Display : UV Intensity in % (99 countdown)
- Press "setting" button (less than 2 seconds) to switch display from "UV Intensity" to "Lamp Life Remaining Days (365 days to 1 day)", Press again to display "Total Running Days of Controller" then Press again back to UV Intensity or after 10 seconds, the screen will return default display.
- 2-Stage Lamp Power, lower power consumption reduced operational cost and ultimately less heat transfer into the water.

UV Intensity (%)



to



Indicates the system is functioning within a normal operating range.



to



UV level is still within a safe level, however cleaning or lamp replacement may soon be required.




to




UV level is nearing the point of unsafe UV intensity, the UV system should be immediately serviced.

1) Low UV below 50%



2) Alarm: Red LED Flashing, Buzzer 2 seconds ON, 2 seconds OFF. Screen display as  and alternately flashes (at 2 second intervals) back to the actual UV level

3) Deferred Alarm : To temporarily to defer the audible alarm and re-activated solenoid valve (if installed), Press and Hold On "setting" Button 5 seconds till screen display  then release button but Red Light still Flashing , but Red LED still Flashing

Lamp Life Remaining Days (365 days to 1 day)



1) End of Lamp Life : At "0" day, screen will display



i. Alarm: Red LED Flashing, Buzzer 1 second ON, 5 seconds OFF



- ii. Deferred Alarm up to 4 times: Press and Hold On "setting" Button 10 seconds till screen display **88:88** then release Button will display **88:88** days and none audible chirp but Red LED still Flashing
- iii. Must replace a new lamp to manually resetting Lamp Life Valid Days (365 days) of controller for system to terminate alarm after the final "7" days

2) Change Lamp instructions

- i. Disconnect Power Supply
- ii. Remove expired (or failure) lamp then Install new lamp
- iii. Press and Hold On "setting" button 15 seconds, screen display **88:88** , after 2 seconds, you can read **88:88** again from screen and hear an audible tone, then release "setting" button. Meanwhile, the Lamp Life Days reset to be 365 as well.

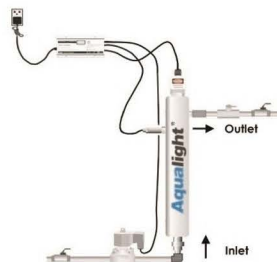
3) Lamp Failure : Screen display valid days freeze, Red LED Flashing, Buzzer 1 second ON, 1 second OFF. The system will remain in this state until change new lamp.

DRY CONTACTS

The Dry Contacts are typically used to operate solenoid valve. When lamp UV output drops to 49% UV intensity or below, the dry contact relay will be activated to operate solenoid valve, horn, buzzer or remote light. (NOTE: Any remote piece of equipment hooked up to the dry contacts must obtain their power from another source)

These dry contacts can be wired for a normally open (NO) or normally closed (NC) operation. The dry contacts will remain either closed (NC) or open (NO) until UV lamp in normal operation.

Example: solenoid valve(normal closed) can be wired (NO), the valve will be closed when lamp fails.





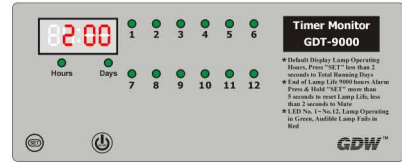
Lamp Life Timer GDT-9000

- Input Power : AC85~265V.
- Default Display: Lamp Operating Hours, Up to 9000 hours.
Total Running Days, Up to 9,999 days.
- End of Lamp Life Alarm, Resettable
- Lamp No.1 ~ No.12 Operation LED Indicators : Green Normal Operating, Audible Lamp Failure with Red



4-segment Visual Display

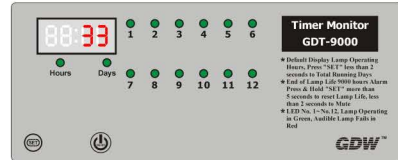
- Default Display: Lamp Operating Hours, Up to 9000 hours. Example : Lamp Operating 200 hours



- Equipment Total Running Days : Press "  " less than 2 seconds to display. Then Press

"  " button again or more than 10 seconds will return Default

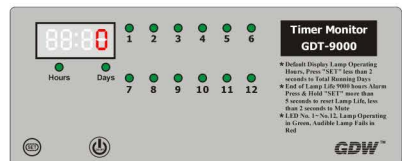
Example : Equipment Total Running 33 days



End of Lamp Life (Default 9000 hours)

Screen Display "9000" hours Blinking , Alarm and Relay is activated., Press "  " button less than 2 seconds to mute but the relay is still activated until reset

Reset : Press and Hold  for 5 Seconds, Reset Lamp Operating Hours to 0 hour





Monitor : GDM20

Sensor : GDS254NM25-V



- Universal Voltage AC85~265V. Power < 5W
- Alarm for Low UV Intensity and Lamp Life End
- 4-segment Visual Display Indicating UV- Irradiation Intensity Relative in %
- 4-segment Visual Display Indicating Lamp Operating Hours
- Easy to Reset UV Relative Intensity and Lamp Operating Hours
- Lamp Operating Hours up to 9,999. Resettable and Alarm Setting between 0 ~ 9999 hours.
- UV- Irradiation Intensity 0 ~ 19999 μ W/cm²
- Ambient Temperature : 0 ~ +50°C
- Ambient Humidity : 35 ~ 85%RH

Monitor Visual Display



E-01 : Low UV Intensity Alarm (default 50%)

E-02 : Lamp Life End Alarm (default 8000hr)



- E-01 , Low UV Intensity Alarm : Check Pre-Filters, Clean Quartz Sleeve or Change New Lamp
- E-02, Lamp Life End : Change New Lamp
- E-01, E-02 : Solenoid Valve Closed (if installed)

Reset : Press and Hold



for 5 Seconds





Setting Parameters

"C-01" : Low UV- Irradiation Intensity Alarm, Default 50%

"C-02" : Lamp Life End Alarm, Default 8000 hours

1.Press (SET) + (Up Arrow) , Screen Display "C-01" : Low UV- Irradiation Intensity Alarm,default 50%. Then Press (Up Arrow) to move to "C-02" : Lamp Life End Alarm, default 8000 hours.



2.Change Alarm Setting : Monitor in Setting Mode of "C-01" or "C-02"

▪ Press (SET) , then number blinking.



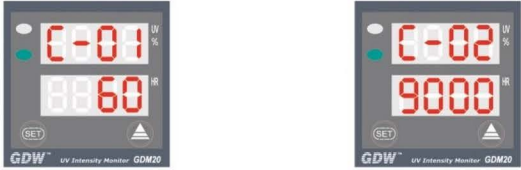
▪ Press (SET) to move the blinking numbers.



- Press  to increase the blinking numbers.

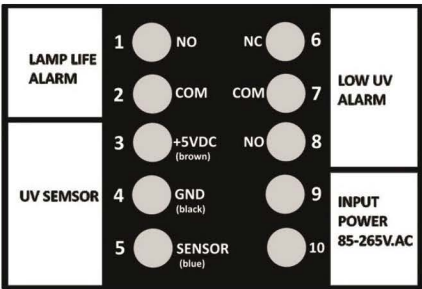


- Press and Hold  until the number is not blinking, Alarm Setting Change is successful.



3.Log Out Setting Mode : Press  +  or No Action After 1 Minute

Wiring Diagram



1, 2	Lamp Life Alarm
3, 4, 5	UV Sensor
6, 7, 8	Low UV Intensity Alarm
9, 10	Input Power 85~265VAC

(NOTE: Any remote piece of equipment hooked up to the dry contacts must obtain their power from another source)





Aqualight® UV Germicidal Lamp Quartz Sleeve

Ultraviolet radiation in the 200-300 nanometer (nm) range is extremely effective in killing microorganisms such as airborne and surface bacteria, viruses, yeasts and molds.

Aqua Lighttech Limited low-pressure, mercury-arc germicidal lamps are specially designed to produce the highest amounts of UV radiation - typically about 90% of the total rated energy is at 253.7nm. This radiation is very close to the peak of the germicidal effectiveness curve of 265nm, the most lethal wavelength to microorganisms (see graph below). Our germicidal lamps are used extensively in air and water purification applications such as in the food and beverage industry, medical applications, HVAC systems (Heating, Ventilating, and Air Conditioning), pharmaceutical and semiconductor sterilization applications. In addition, they are used in drinking water, waste water and ground water remediation.

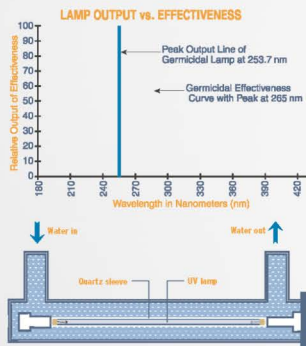
UV Lamp Part#	Power	BF to BF	Wavelength	Current	Quartz Sleeve Part#	Length	Model	Spring Part#
GPH212T5L/4-LT	10W	212mm	254nm	425mA	QS245	245mm	PV1/PV1T, PLT1	SPRING4506
GPH287T5L/4-LT	14W	287mm	254nm	425mA	QS331	331mm	PV2/PV2T/PTM2/PTM2S/PLT2	SPRING4506
GPH330T5L/4-LT	19W	330mm	254nm	425mA	QS375	375mm	PV4/PV4T/PTM4/PTM4S/PLT4	SPRING4506
GPH505T5L/4-LT	28W	505mm	254nm	425mA	QS535	535mm	PV6/PV6T/PTM6/PTM6S/PLT6	SPRING4506
GPH645T5L/4-LT	32W	645mm	254nm	425mA	QS665	665mm	PV8/PV8T/PTM8/PTM8S/PLT8	SPRING3604
G36T5L/4-LT	39W	843mm	254nm	425mA	QS890	890mm	PV12/PV12T/PTM12/PTM12S/PLT12.SLT	SPRING4506(NONE for SLT)
GHO422T5L/4-LT	40W	422mm	254nm	800mA	QS452	452mm	PV18T/PTM18/PTM18S	SPRING4506
GHO512T5L/4-LT	50W	512mm	254nm	800mA	QS542	542mm	PV24T/PTM24/PTM24S	SPRING4506
GHO702T5L/4-LT	65W	702mm	254nm	800mA	QS732	732mm	PV35T/PTM35/PTM35S	SPRING4506
GHO36T5L/4-LT	80W	843mm	254nm	800mA	QS890	890mm	PV42T/PTM42/PTM42S.SLT	SPRING4506(NONE for SLT)
GHO1052T5L/4-LT	100W	1052mm	254nm	800mA	QS1082	1082mm	PV52T/PTM52/PTM52S	SPRING4506
GHO64T5L/4-LT	155W	1554MM	254nm	800mA	QS1560	1560mm	SLT, SUV	NONE
GHO36T5VH-LT	87W	843mm	185nm	800mA	QS890	890mm	LTOC, PTOC	NONE
GHO64T5VH-LT	155W	1554MM	185nm	800mA	QS1560	1560mm	PTOC	NONE

► Lamp tube diameter 15mm, 10,000 hours Rated Life



Tube current 800mA High Output (HO) germicidal lamps yield 1/3 to 2/3 more UV output than standard output 425mA lamps of the same length. High Output lamps are available in most of the common lamp lengths in use today. Custom designed lengths can also be supplied. High Output lamps offer the system designer unique opportunities to reduce the number of lamps required to perform the function of the system and possibly reduce the footprint of the system, or increase the efficiency and capacity of an existing system while keeping the same footprint.

Ozone Action : Our "VH" germicidal lamps generate energy at 185nm in addition to the 253.7nm line. This UV emission produces abundant amounts of ozone in air. Ozone is an extremely active oxidizer. It destroys microorganisms on contact and acts as a deodorizer. One of its primary advantages is that it can be carried by air into places that the UV radiation cannot directly reach. We design and manufacture lamps to produce various amounts of ozone to meet specific application requirements. "VH" lamps are typically used in the treatment of air, pool and spa water, T.O.C. (Total Organic Compound) reduction, and HVAC.



Advantages of UV--Radiation:

- Environmentally friendly, no dangerous chemicals to handle or store, no problems of overdosing
 - Low initial capital cost and reduced operating expenses when compared with other technologies such as chemical processing
 - Immediate treatment process, no need for holding tanks, long retention times
 - No chemicals added to water supply; no by-products
 - No change in taste, odor, pH, conductivity or the general chemistry of the water
 - No handling of toxic chemicals, no need for specialized storage requirements
 - Simplicity and ease of maintenance, periodic cleaning (if applicable) and annual lamp replacement
 - Highly compatible with other water and air treatment processes
- Germicidal applications



Part #	Description	Application	Photo
QSORING2821	Sealing O-ring, EPDM	All UV Systems	
QSWASHER3023	Protection Ring, Teflon	All UV Systems	
GSN4038	Gland Sealing Nut, Aluminum	All UV Systems	
ESN3038	Ended Sealing Nut, Aluminum	All UV Systems	
PSC5115	Mounting Clips, Plastic	Suit 2"(51mm) O.D. Chamber	
PSC6315	Mounting Clips, Plastic	Suit 2.5"(65mm) O.D. Chamber	
ALC6320	Mounting Clamps, Aluminum	Suit 2.5"(65mm) O.D. Chamber	
ALC8925	Mounting Clamps, Aluminum	Suit 3.5"(90mm) O.D. Chamber	
HM7472	Hours Meter	SLT, SUV, LTOC, PTOC,	
EF80220	Exhaust Fan	SLT, SUV, LTOC, PTOC,	
GLED-5V	Green LED, 5V	SLT, SUV, LTOC, PTOC,	