

## SERIES TWS TOWER SECTOR



TWS  
SECTOR

### Your Choice

Quick Assembly  
(No Tools!)

Continuous light TWS-F  
Flashing light TWS-L


#### ALL WITH OPTIONAL

• Filament or Led Bulb

• Xenon Bulb

• LED INTEGRATED

AND/OR

• Add a horn  with 32 sounds

• IP54 & IP65

• NEMA 4/4X



BLACK  
OPTION  
AVAILABLE



## SERIES "LD" TWS The "LD" OPTION LED INTEGRATED



IP66 for  
NEMA 4 & 4X

OR

NEMA 1, 12, 3R  
Applications



"LD-TWS"

- Vibration Resistant  
(LED Mounted in Epoxy)
- Long LED Life
- Low Power
- Unparalleled Light Output
- Hose Test / Water Tight /  
Dust Tight  
(NEMA 4 | 4X | 12 | 3R)

## Other Sirena "LD" Styles

ALL "LD" LED INTEGRATED

LIGHTS AND HORNS

Beacons  
"LD"-CTL  
(pg. S 13)

2.6" Dia.



5.2" Dia.



Micro Beacons

"LD"-MC

(pg. S 14)

2.6" Dia.



3" Dia.



Beacons  
"LD"-OVO OVOLUX  
(pg. S 14)

3" Dia.



"LD" Rotating  
Beacon  
(pg. S 15)



Light Bar  
"LD"-LN  
(pg. S 15)

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# Cal-Centron Wholesale Co

3225 Tomahawk Dr.  
Stockton, CA 95205

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Fax: 209.942.2163



**LIGHT  
TOWER**  
*LED Integrated  
Series LD-TWS*



LD-TWS Tower Sector



LED's embedded in epoxy

## ***Design Advantages***

### **Long Life Guarantee:**

LED bulbs, unlike filament bulbs, never burn out. The light intensity decreases by 5% after 100,000 hours of operation (a measurement that is verified by means of an instrument only) - the human eye perceives a difference when there is a decrease in the region of 15% - 20%.

### **Low Power Use:**

The current absorbed by a led integrated product is much less than that of an equivalent device fitted with a filament bulb and is, therefore, energy saving. This characteristic makes these products ideal for use in logic plants where there are PLC or computer controlled machines.

### **No Heat:**

LED bulbs emit cold light and unlike incandescent bulbs, there is no energy used to heat the bulb: a LED integrated product is therefore energy saving and is more environmentally friendly.

### **Clear Bright Signal:**

The light emitted by an incandescent bulb is a mixture of wavelengths of all the colors in the range. The light is filtered through the dome and the onlooker identifies a definite color with shading of other colors. The light emitted by a led bulb is concentrated on one wavelength only and there is no filtering as the color of the dome is the same as that of the bulb. The result is a clear signal that strikes the onlooker as the human eye is not used to such a pure colored light. It is emphasized that the LED's used in these devices are extremely bright.

### **No Maintenance:**

A LED integrated product requires no maintenance: the piloted electronic circuit is embedded in vibration proof epoxy resin from which the led emerge.

### **Reliability Mechanical:**

The mechanical characteristics of the epoxy resin circuit fitted in led integrated products are superior to that of the thin wire of a tungsten bulb and these products are therefore extremely reliable.

### **Production Quality:**

All the LED integrated products are submitted to a parametric test at the end of the production cycle. The result is printed on a test certificate and packed inside the box.

### **Cost = Zero:**

Even though the initial cost of a LED product is more than that of the traditional version, it is of no significance because the energy saving within the guarantee period completely outweighs the initial extra cost.

**MOISTURE / VIBRATION:**

**Maximum Vibration Resistance:**

In order to ensure the maximum resistance against vibrations and moisture, the PCB and its electronic components are totally **embedded in a special resin**.

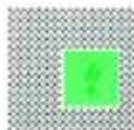


Due to the construction of the LD TWS modules, the quality and reliability of this product are unsurpassed.

**RAIN / CORROSION:**

**Maximum Resistance:**

**NEMA 4, 4X, IP66** - designed protection against forced water and industrial dust.



totally protected against dust



protected against strong jets of water e.g. for use on shipdecks

**Safe Quick Assembly:**

Without tools, results from a ratcheted lock ring with o-ring gasket, ensuring absolute resistance against atmospheric agent.

**INTEGRATED LED SERIES LD:**

**Maximum Brightness:**

The bright LD-TWS light output results from 12 LED's coordinated for full lens brightness, eliminating the old "dot" effect, typical of other designs.








**Fresnel Lens Standard**

The high intensity LED's mounted in epoxy, also use a Fresnel lens to capture the light output and diffuse smoothly onto the outer colored lens.

**INTERNATIONAL COLOR DESIGNATION:**

Assembly is quick and easy without the use of tools: place the vertical printed circuit in the slits provided and push downwards twist the lock ring until the module has been completely secured. Tower Sector has been made with an unscrewable tooth lock ring system placed between the lock ring and the dome on each module.

	SERIOUS DANGER ACT NOW
	WARNING PROCEED WITH CARE
	SAFE CONDITION GO AHEAD
	SPECIFIC MEANING GIVEN DEPENDING ON THE SITUATION
	NO SPECIFIC MEANING

**TO ORDER A COMPLETE TWS TOWER LIGHT**

Order: Wiring Base + Tower Sectors = Complete Unit with cover and/or Horn  
 #TWS-BC + #TWS-F and/or TWS-L or \*

\* The prefix LD designates LED INTEGRATED  
 Example: LD-TWS-F. In the LD sector 12 LED's are embedded in epoxy.



Quick assembly without tools!  
 (Slide together and tighten lock ring)

**How To Order:**

In order to assemble the Tower Sector light stack, several choices are necessary. Each Tower Sector must include a TWS-BC which comprises the base/terminal connectors and cap. The user then must choose the number, type and color of the lens module(s) required, either continuous light TWS-F/LD-TWS-F, flashing light TWS-L/LD-TWS-L, or xenon strobe TWS-X. Each TWS lens module is supplied with either incandescent, LED or xenon bulb, depending on type module selected. The LD TWS Sectors include the integrated LED's in epoxy. To this stack can be added an acoustic horn module, TWS-A, or a rotating beacon TWS-RB by means of mounting accessories.

## COMPLETE TOWER (TWS) - ORDER INFORMATION

Wiring Base with Cover



#TWS-BC

+

- ◆ # LD-TWS  
LD Integrated (see below pg.238)
- ◆ # TWS  
Tower Sector less bulb (pg. 239)  
Add filament bulb or LED bulb (pg. 239)

Select Tower Sectors / Options



- ◆ XENON Sector (pg. 240)
- ◆ Flashing Beacon can be added to stack (pg. 247)



+

Mounting Options



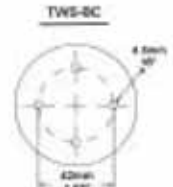
(pg. 243)



### BASE & CAP MODULE

Required for use with light modules and / or horn.

Part Number	Description	List Price
TWS-BC	Base Module/cap	\$44.00



### TOWER SECTORS LD-TWS

## LED INTEGRATED SECTORS LD-TWS



Black housing is also available. Contact factory.



All LED's are Included

Continuous Lights		
Part Number	Lens Color	List Price
LD-TWS-F2.*	amber	\$60.00
LD-TWS-F3.*	red	\$60.00
LD-TWS-F5.*	yellow	\$60.00
LD-TWS-F4.*	green	\$94.00
LD-TWS-F1.*	blue	\$94.00
LD-TWS-F6.*	clear	\$130.00

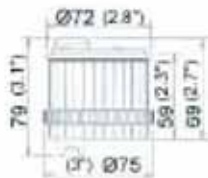
Number Example:  
LD-TWS-F1-GN



All LED's are Included

Flashing Lights		
Part Number	Lens Color	List Price
LD-TWS-L2.*	amber	\$116.00
LD-TWS-L3.*	red	\$116.00
LD-TWS-L5.*	yellow	\$116.00
LD-TWS-L4.*	green	\$155.00
LD-TWS-L1.*	blue	\$155.00
LD-TWS-L6.*	clear	\$165.00

\* Must specify voltage suffix...  
\*GN (24VAC/DC), \*O (48VAC/DC),  
\*A (110VAC), \*C (240VAC)



	V	-			
		24	48	110	240
●●●●	mA	90	65	20	20
●●●○	mA	80	65	20	20

Power used per color.

150 ± 20 Flashes per min.

Temperature:  
°C -30 to +50°C

Gaskets:  
EPDM

Housing:  
Polycarbonate RAL7035

**TOWER SECTOR OPTIONS = (NOT LED INTEGRATED)**

- For use with: 1. Filament Bulbs Option (Not type LD, not LED Integrated)  
 2. Separate LED Bulbs Option (Not type LD, not LED Integrated)

The lens/light modules can be stacked in any configuration up to 5, or 4 with optional acoustic horn. For example, the top position could be a red xenon module, followed by an amber flashing module in the middle with a green continuous module on the bottom. If require, an acoustic horn module can be added to the top position.



Continuous Light Modules		
Part Number	Lens Color	List Price
TWS-F2	amber	\$28.00
TWS-F3	red	\$28.00
TWS-F5	yellow	\$28.00
TWS-F4	green	\$28.00
TWS-F1	blue	\$28.00
TWS-F6	clear	\$28.00

Flashing Light Modules		
Part Number	Lens Color	List Price
TWS-L2	amber	\$82.00
TWS-L3	red	\$82.00
TWS-L5	yellow	\$82.00
TWS-L4	green	\$82.00
TWS-L1	blue	\$82.00
TWS-L6	clear	\$82.00

Bulbs not included.

Flashes/Min. 110 ± 20

FOR USE WITH INCANDESCENT BULB 5W OR LED BULB (see below).

**INCANDESCENT BULBS or SEPARATE LED BULBS**

(Not for LED Integrated Sector Modules)

Purchase as separate items or include with above Sector Module.

**Filament Type Bulb**

\* Add voltage suffix to above module.  
 Add \$4.00 List

\* **Must specify voltage suffix...**  
 \*M (12VAC/DC), \*G (24VAC), \*N (24VDC),  
 \*A (110VAC), \*C (240VAC)

**LED Type Bulb**

\* Add voltage suffix to above module.  
 Add extra cost per below.

\* **Must specify voltage suffix...**  
 \*LM (12VAC/DC), \*LG (24VAC), \*LN (24VDC),  
 \*LA (110VAC), \*LC (240VAC)  
 Contact factory on availability of other voltages.

**Separate Filament Bulb**

Part Number	Bulb Type	List Price
TWS-BA15D-*	Incandescent (5 watt)	\$4.00

Part Number	Bulb Type	List Price
TWS-LRX2J	Xenon	\$36.00

Above xenon part number covers all voltage ranges, 24-240V, when used in Xenon TWS-X Sectors on page 239 (above).

**Separate Led Bulb**

Part Number	Bulb Type	List Price
TWS-LED1-*	blue led	\$131.00
TWS-LED2-*	amber led	\$ 63.00
TWS-LED3-*	red led	\$ 63.00
TWS-LED4-*	green led	\$131.00
TWS-LED5-*	yellow led	\$ 63.00

Not usable with Series LD LED Integrated.

## Lens / Light Stack Modules

Xenon strobe flash sector

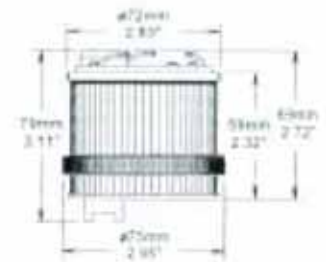
Part Number	Lens Color	List Price
TWS-X1-*	blue	\$130.00
TWS-X2-*	amber	\$130.00
TWS-X3-*	red	\$130.00
TWS-X4-*	green	\$130.00
TWS-X5-*	yellow	\$130.00
TWS-X6-*	clear	\$130.00

\* **Must specify voltage suffix...**

\*G (24VAC), \*N (24VDC),  
\*A (110VAC), \*C (240VAC)  
Xenon not available in  
suffix M (12VAC/DC)

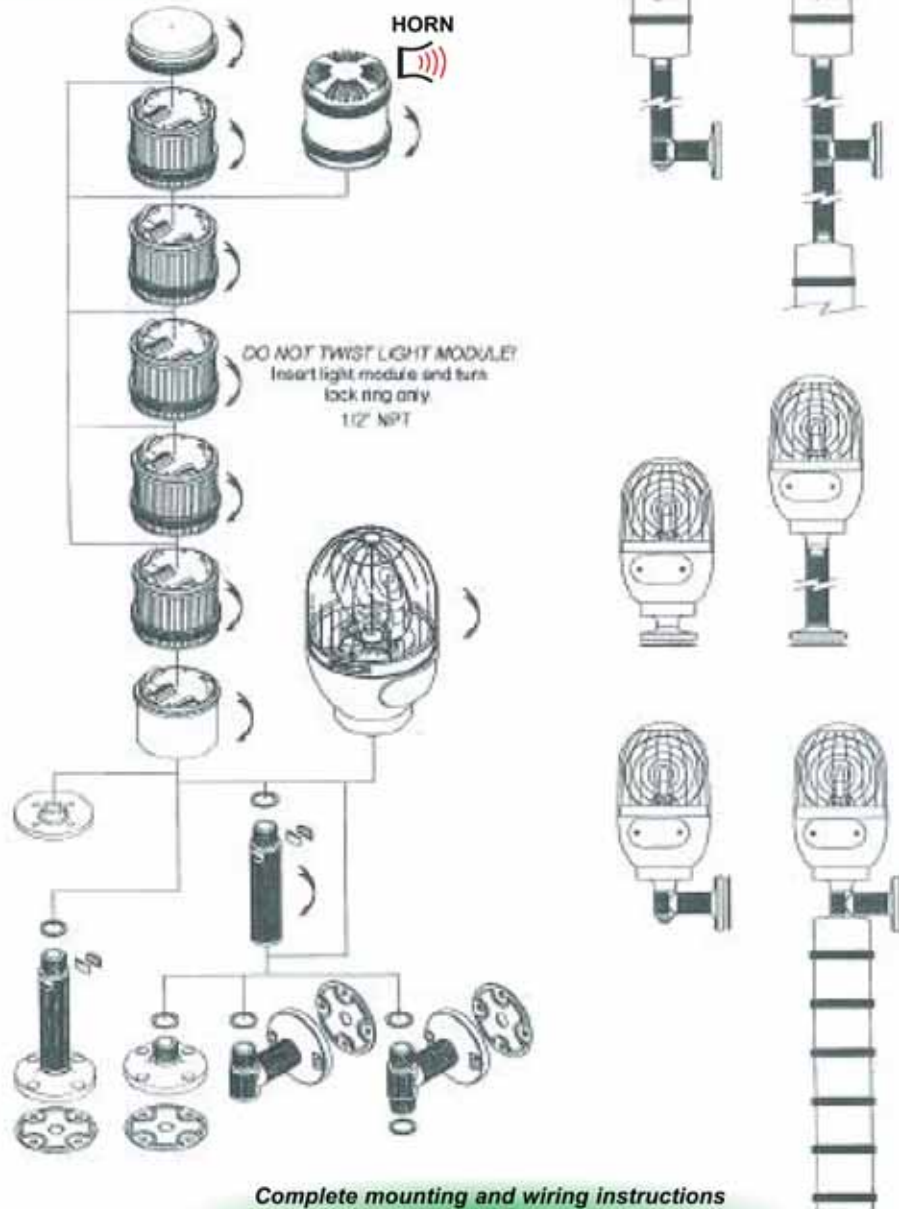


Xenon Tube  
Included.



Xenon Module can be placed in any  
location in the Tower Sector stack.

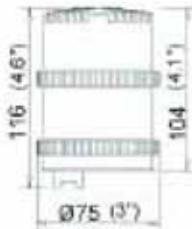
## Assembly & Mounting



Complete mounting and wiring instructions  
shipped with each TWS-BC base and module ordered.



**IP54  
NEMA 12**



V DC	12 / 24 / 48			-	-	-
V AC				110 / 230 / 240		
mA	2.7	6	13	4	8	8.5
Hz	2500			± 100 Hz		

°C -30, +60°C

Part Number	List Price
<b>TWS-A-*</b>	\$82.00

**\* Must specify voltage suffix...**  
**\*GN** (12 to 48 VAC/DC)  
**\*A** (110 to 240 VAC)

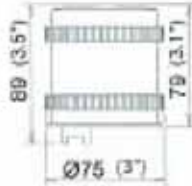
**DIP SWITCH - 6 SOUNDS**

	SLOW INTERMITTENT SOUND REDUCED OUTPUT	T ON 310 ms T OFF 260 ms	V  12 24 48 - - - V  12 24 48 110 230 240 dB(A)/m 72 77 79 76 76 76
	SLOW INTERMITTENT SOUND MAXIMUM OUTPUT	T ON 310 ms T OFF 260 ms	V  12 24 48 - - - V  12 24 48 110 230 240 dB(A)/m 77 84 85 81 85 85
	FAST INTERMITTENT SOUND REDUCED OUTPUT	T ON 70 ms T OFF 50 ms	V  12 24 48 - - - V  12 24 48 110 230 240 dB(A)/m 74 79 81 76 76 76

	FAST INTERMITTENT SOUND MAXIMUM OUTPUT	T ON 70 ms T OFF 50 ms	V  12 24 48 - - - V  12 24 48 110 230 240 dB(A)/m 76 85 87 81 85 85
	CONTINUOUS SOUND REDUCED OUTPUT	-	V  12 24 48 - - - V  12 24 48 110 230 240 dB(A)/m 75 81 83 76 80 81
	CONTINUOUS SOUND MAXIMUM OUTPUT	-	V  12 24 48 - - - V  12 24 48 110 230 240 dB(A)/m 79 85 89 81 85 87



**IP65  
NEMA  
4, 4X**



V DC	12 / 24 / 48			-	-	-
V AC				110 / 230 / 240		
mA	2.7	6	13	4	8	8.5
Hz	2500			± 100 Hz		

°C -30, +60°C

Part Number	List Price
<b>TWS-A- IP65-*</b>	\$87.00

**\* Must specify voltage suffix...**  
**\*GN** (12 to 48 VAC/DC)  
**\*A** (110 to 240 VAC)

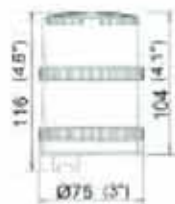
**DIP SWITCH**

	SLOW INTERMITTENT SOUND REDUCED OUTPUT	T ON 310 ms T OFF 260 ms	V  12 24 48 - - - V  12 24 48 110 230 240 dB(A)/m 72 77 79 76 76 76
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	FAST INTERMITTENT SOUND REDUCED OUTPUT	T ON 70 ms T OFF 50 ms	V  12 24 48 - - - V  12 24 48 110 230 240 dB(A)/m 74 79 81 76 76 76

	FAST INTERMITTENT SOUND MAXIMUM OUTPUT	T ON 70 ms T OFF 50 ms	V  12 24 48 - - - V  12 24 48 110 230 240 dB(A)/m 76 85 87 81 85 85
	CONTINUOUS SOUND REDUCED OUTPUT	-	V  12 24 48 - - - V  12 24 48 110 230 240 dB(A)/m 75 81 83 76 80 81
	CONTINUOUS SOUND MAXIMUM OUTPUT	-	V  12 24 48 - - - V  12 24 48 110 230 240 dB(A)/m 79 85 89 81 85 87



**IP54  
NEMA 12**



V DC	12/24	-	-	-	-
V AC		48	110	230/240	
mA	see table next page				
Hz	see table next page				


°C -30, +60°C

Part Number	List Price
<b>TWS-AM-*</b>	
12/24V	\$126.00
110/240V	\$160.00

**\* Must specify voltage suffix...**  
**\*GN** (12 to 24VAC/DC), **\*O** (48VAC),  
**\*A** (110VAC), **\*C** (240VAC)

**TWS AM**  
 Magnetodynamic  
 Acoustic Module 32 Sounds  
 selected by means of Dip Switch

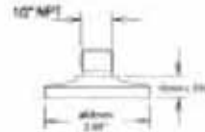
TOWER SECTOR-TWS-AM HORN 

	Sound Description	dB (A) 12Vdc	Consumption 12Vdc	dB (A) 24Vac	Consumption 24Vac	dB (A) 230Vac	Consumption 230Vac	Sound Frequency
	Linear	88	120 mA	94	500 mA	94	33 mA	1000 Hz
	Bi-tone	90	120 mA	97	480 mA	95	28 mA	600/700 Hz
	Multi-tone	92	140 mA	98	550 mA	96	30 mA	1000÷1700 Hz
	Modulated	94	180 mA	99	630 mA	96	32 mA	1000÷1700 Hz
	Evacuation	87	170 mA	94	330 mA	93	32 mA	440/560 Hz
	Fast Bi-tone	88	140 mA	94	600 mA	96	30 mA	800/970 Hz
	Fast Multi-tone	89	100 mA	95	440 mA	95	26 mA	800+970 Hz
	Slow Multi-tone	90	110 mA	95	460 mA	95	26 mA	800+970 Hz
	Linear	91	290 mA	96	890 mA	97	40 mA	2850 Hz
	Fast Multi-tone	92	250 mA	97	820 mA	99	38 mA	2400÷2850 Hz
	Slow Multi-tone	93	250 mA	99	850 mA	99	38 mA	2400÷2850 Hz
	Intermittent Multi-tone	89	125 mA	95	520 mA	95	33 mA	500÷1200 Hz
	Descending Multi-tone	88	120 mA	94	460 mA	99	26 mA	1200÷500 Hz
	Bi-tone	85	420 mA	97	1A	99	44 mA	2400 / 2850 Hz
	Slow Intermittent	89	125 mA	95	520 mA	94	26 mA	970 Hz
	Bi-tone	91	180 mA	96	640 mA	96	30 mA	800 / 970 Hz
	Intermittent	89	130 mA	95	450 mA	94	26 mA	970 Hz
	Intermittent	84	80 mA	91	320 mA	92	20 mA	660 Hz
	Slow Intermittent	86	90 mA	93	420 mA	94	23 mA	660 Hz
	Linear	89	60 mA	95	290 mA	93	20 mA	500 Hz
	Bi-tone	87	140 mA	94	280 mA	93	24 mA	440/554 Hz
	Intermittent	87	85 mA	93	370 mA	94	23 mA	660 Hz
	Fast Intermittent	91	290 mA	97	840 mA	97	36 mA	2850 Hz
	Multi-tone (buzzer)	91	100 mA	96	440 mA	94	25 mA	800+970 Hz
	Multi-tone (buzzer)	93	260 mA	97	850 mA	99	38 mA	2400+2850 Hz
	Fast Intermittent	90	220 mA	96	720 mA	96	32 mA	2850 Hz
	Linear	86	40 mA	92	220 mA	92	18 mA	300 Hz
	Bi-tone with pause	89	125 mA	96	425 mA	95	26 mA	600 / 700 Hz
	Bi-tone with pause	94	180 mA	99	560 mA	95	30 mA	1200 / 1700 Hz
	Bi-tone with pause	93	310 mA	100	1,1 A	100	38 mA	2400 / 2850 Hz
	Bi-tone	89	125 mA	96	500 mA	94	26 mA	600 / 700 Hz
	Modulated	95	170 mA	99	650 mA	96	32 mA	1400+1600 Hz

**FOOT - with O-Ring and base gasket** Use with Series TWS and OVOLUX page S 14.



Part Number	Description	List Price
TWS-BS	Base with gaskets	\$11.00

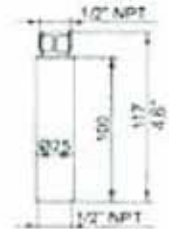


**EXTENSION STEM - with O-Ring and two removable snap-shut stoppers**



Part Number	Description	List Price
TWS-PR	4" extension stem	\$9.00

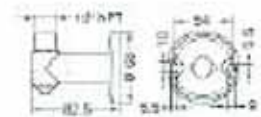
Multiple extension pieces may be coupled to desired length.



**1 THREAD WALL SUPPORT - with O-Ring and base gasket**



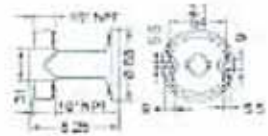
Part Number	Description	List Price
TWS-BP1	Wall mount, single	\$16.00



**2 THREAD WALL SUPPORT - with O-Ring and base gasket**



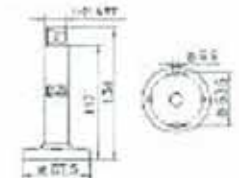
Part Number	Description	List Price
TWS-BP2	Wall mount, double	\$17.00



**1 PR + 1BS - with O-Ring, base gasket and two removable snap-shut stoppers**



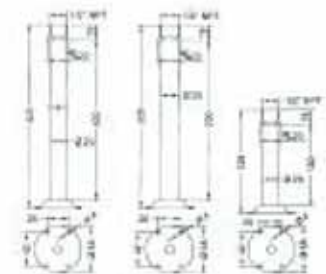
Part Number	Description	List Price
TWS-KIT	Base & extension stem	\$20.00



**Stainless Steel Extension Stem with O-Ring**



Part Number	Description	List Price
TWS-SSE1	Stainless steel extension w/base	\$40.00
TWS-SSE2	Stainless steel extension w/base	\$45.00
TWS-SSE3	Stainless steel extension w/base	\$60.00



**PVC Extension Stem with Base**



Part Number	Description	List Price
TWS-J-12	12" extension w/base	\$12.00
TWS-J-24	24" extension w/base	\$18.00
TWS-J-36	36" extension w/base	\$25.00
TWS-J-90D	90° elbow	\$ 9.00



**Flexible Steel Extension Stem**

Part Number	N TWS PF2
Description	Flexible Steel Extension stem
List Price	\$48.00



**TWS-BC WIRING** (base/cap module) Page 238

**Mechanical**

Degree of protection: **IP66**  
 Operating temperature: -22°F-+140°F  
 Recommended wire size: .5-2.5mm  
 Cover lock ring tightening torque: Nm 4 (Kgm 0.4)  
 Terminal tightning torque: Nm 0.5 (Kgm 0.05)

**Electrical**

Voltage: 240 maximum

**Materials**

Housing/cover/lockring: Polycarbonate grey Ral 7035  
 Gaskets: EPDM  
 Screws: Zinc coated steel  
 Base printed circuit: FR4  
 Terminal board: 6 way, PA 6.6  
 Cable clamp: Nylon 6.6

**TWS-A** (horn module) Page 241-242

**Mechanical**

TWS-A (IP54) NEMA 12  
 Degree of protection: TWS-A - IP65 - NEMA 4, 4X  
 TWS-AM (IP54) NEMA 12

Operating temperature: -22°F-+140°F  
 Cover lock ring tightening torque: Nm 4 (Kgm 0.4)

**Electrical**

Voltage: 12/24V AC/DC, 110/240V AC

**mA:** 2.7 (12V), 6 (24V), 4 (110V), 8.5 (240V)

**Materials**

Housing/lockring: Polycarbonate grey Ral 7035  
 Gaskets: EPDM  
 Screws: Zinc coated steel  
 Vertical printed circuit: FR4

**dB Ratings @ 1M:** 76 (12V), 82 (24V)  
 83 (110V), 86 (240V)

**TWS-F/L/X** (light modules) Pages 238-239

**Mechanical**

Degree of protection: **IP66, NEMA 4/4X**  
 Operating temperature: F, L (-22°-+140°F) x (+14°-122°F)  
 Cover lock ring tightening torque: Nm 4 (Kgm 0.4)

**Electrical**

24 Volt to 240 Volt, see page S 6

150 ± 20 flashes per minute, see page S 6

**Materials**

Lens: Polycarbonate  
 Light separator, lampholder & lockring: Ral 7035  
 Gaskets: EPMD  
 Screws: Zinc coated steel  
 Vertical printed circuit: FR4

**MOUNTING ACCESSORIES** Page 243

**Mechanical**

Tightening torque: Nm 0.5 (Kgm 0.05)

**Materials**

Housing: Polycarbonate grey Ral 7035  
 Base gaskets/O-rings: EPDM

**RATINGS**

IP66, NEMA 4X



totally protected against dust

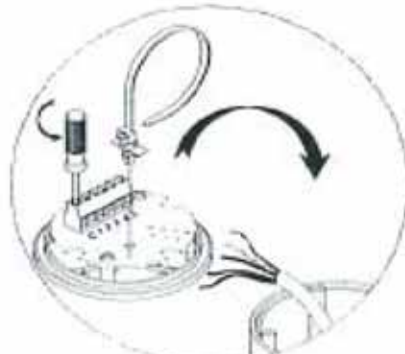


protected against strong jets of water from all directions

U.L. LISTED 



Quick Assembly



Base Wiring #TWS-BC

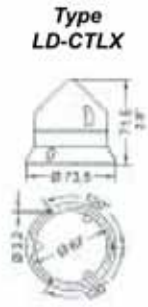


Circuit



Selected Mounting Options

**FLASHING BEACONS with LED's Integrated NEMA 12/13/3R (IP54) Rain Tight / Dust Tight Heavy Duty Oil Tight Design Beacons & Horns**



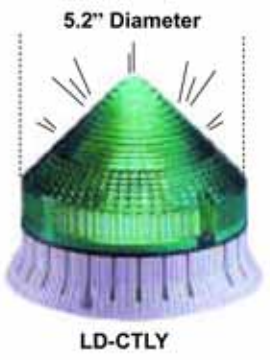
2.6" Diameter

Part Number	Lens Color	List Price 24V/110V
LD-CTLX-2A-*	amber	\$79.00
LD-CTLX-3R-*	red	\$79.00
LD-CTLX-5Y-*	yellow	\$79.00
LD-CTLX-4G-*	green	\$106.00
LD-CTLX-1B-*	blue	\$106.00
LD-CTLX-6C-*	clear	\$106.00

VDC	24	48	-	-
	VAC		110	240
mA	70	65	20	20
mA	70	70	20	20

Power used per color.

0-150 + 20 Flashes per min.  
\*C -30 + 50



5.2" Diameter

Part Number	Lens Color	List Price 24V/110V
LD-CTLY-2A-*	amber	\$190.00
LD-CTLY-3R-*	red	\$190.00
LD-CTLY-5Y-*	yellow	\$190.00
LD-CTLY-4G-*	green	\$250.00
LD-CTLY-1B-*	blue	\$250.00
LD-CTLY-6C-*	clear	\$290.00

\* Must specify voltage suffix...  
\*GN (24VAC/DC), \*A (110VAC), \*C (240VAC)

VDC	24	48	-	-
	VAC		110	240
mA	105	120	20	20
mA	105	95	20	20

Power used per color.

**FLASHING BEACONS with Audio (Horn) all with LED INTEGRATED NEMA 1 (IP30) Heavy Duty**

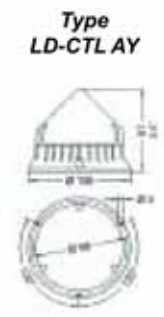


2.6" Diameter

Part Number	Lens Color	List Price 24V/110V
LD-CTL AX-2A-*	amber	\$88.00
LD-CTL AX-3R-*	red	\$88.00
LD-CTL AX-5Y-*	yellow	\$88.00
LD-CTL AX-4G-*	green	\$110.00
LD-CTL AX-1B-*	blue	\$110.00
LD-CTL AX-6C-*	clear	\$125.00

VDC	24	48	-	-
	VAC		110	240
mA	70	65	20	20
mA	70	70	20	20
dB(A)1m	65	65	65	65
Hz 3600	Fm 110		Fm 0	

0-150 + 20 Flashes per min.  
\*C -30 + 50



5.2" Diameter

Part Number	Lens Color	List Price 24V/110V
LD-CTLAY-2A-*	amber	\$220.00
LD-CTLAY-3R-*	red	\$220.00
LD-CTLAY-5Y-*	yellow	\$220.00
LD-CTLAY-4G-*	green	\$290.00
LD-CTLAY-1B-*	blue	\$290.00
LD-CTLAY-6C-*	clear	\$330.00

\* Must specify voltage suffix...  
\*GN (24VAC/DC), \*A (110VAC), \*C (240VAC)

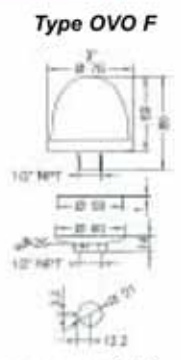
VDC	24	48	-	-
	VAC		110	240
mA	70	65	20	20
mA	70	70	20	20
dB(A)1m	65	65	65	65
Hz 3600	Fm 110		Fm 0	

**SERIES OVO BEACONS with LED's Integrated NEMA 4/4X/3R/12 (IP65) Water Tight / Dust Tight Heavy Duty Design**



LD-OVO F & L (OVOLUX)

For mounting options, see page 243.



"CONTINUOUS"			"FLASHING"	
Part Number	Lens Color	List Price 24V / 110V	Part Number	List Price 24V/110V
LD-OVO F-2A-*	amber	\$56.00	LD-OVO L-2A-*	\$102.00
LD-OVO F-3R-*	red	\$56.00	LD-OVO L-3R-*	\$102.00
LD-OVO F-5Y-*	yellow	\$56.00	LD-OVO L-5Y-*	\$102.00
LD-OVO F-4G-*	green	\$90.00	LD-OVO L-4G-*	\$140.00
LD-OVO F-1B-*	blue	\$90.00	LD-OVO L-1B-*	\$140.00
LD-OVO F-6C-*	clear	\$109.00	LD-OVO L-6C-*	\$150.00

**TYPE LD-OVO**  
0-150 ± 20 Flashes per min. 1°C -30 + 50  
**\* Must specify voltage suffix...**  
\*GN (24VAC/DC)  
\*A (110VAC)  
\*C (240VAC)

**SERIES OVO LIGHT BEACONS with INCANDESCENT BULBS**

"CONTINUOUS"			"FLASHING"	
Part Number	Lens Color	List Price 24V / 110V	Part Number	List Price 12V to 24V
OVOLUX-F1-*	blue	\$24.00	OVOLUX-L1-*	\$69.00
OVOLUX-F2-*	amber	\$24.00	OVOLUX-L2-*	\$69.00
OVOLUX-F3-*	red	\$24.00	OVOLUX-L3-*	\$69.00
OVOLUX-F4-*	green	\$24.00	OVOLUX-L4-*	\$69.00
OVOLUX-F5-*	yellow	\$24.00	OVOLUX-L5-*	\$69.00
OVOLUX-F6-*	clear	\$24.00	OVOLUX-L6-*	\$69.00



Flament Bulb

**\* Must specify voltage suffix...**  
\*M (12VDC), \*G/N (24VAC/DC),  
\*A (110VAC), \*C (240VAC)

All pricing includes size BA15 incandescent bulb. For spare BA15, see page 239. Mounting options, see page 240, 243.

**LD MICRO FLASHING BEACON with LED INTEGRATED NEMA 3/3R/12/13 (IP54) Heavy Duty Oil Tight**



LD-MC



Part Number	Lens Color	List Price 24V / 110V
LD-MC-2A-*	amber	\$84.00
LD-MC-3R-*	red	\$84.00
LD-MC-5Y-*	yellow	\$84.00
LD-MC-4G-*	green	\$105.00
LD-MC-1B-*	blue	\$105.00
LD-MC-6C-*	clear	\$140.00

	V ~	24	48	-	-
	V ~			110	240
●●●●	mA	90	65	20	20
●●○	mA	80	65	20	20

Power used per color.

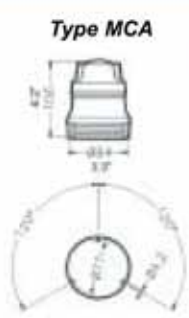
0-150 ± 20 Flashes per min. 1°C -30 + 50

**\* Must specify voltage suffix...**  
\*GN (24VAC/DC), \*A (110VAC),  
\*C (240VAC)

**LD MICRO FLASHING BEACON with AUDIO HORN LED INTEGRATED NEMA 1 (IP30)**



LD-MCA



Part Number	Lens Color	List Price 24V / 110V
LD-MCA-2A-*	amber	\$128.00
LD-MCA-3R-*	red	\$128.00
LD-MCA-5Y-*	yellow	\$128.00
LD-MCA-4G-*	green	\$156.00
LD-MCA-1B-*	blue	\$156.00
LD-MCA-6C-*	clear	\$175.00

	V ~	24	48	-	-
	V ~			110	240
●●●●	mA	70	65	20	20
●●○	mA	70	70	20	20
	dB(A)1m	65	65	65	65
	Hz 3500	Fm 110		Fm 0	

0-150 ± 20 Flashes per min. 1°C -30 + 50

## FLASHING BEACON with LED Integrated **NEMA 4/4X/3R/12** (IP65) Water Tight / Dust Tight



LED		
Part Number	Lens Color	List Price 24V / 110V
LD-BA-2A-*	amber	\$257.00
LD-BA-3R-*	red	\$257.00
LD-BA-5Y-*	yellow	\$257.00
LD-BA-4G-*	green	\$330.00
LD-BA-1B-*	blue	\$330.00
LD-BA-6C-*	clear	\$390.00

V	24		48	
	24	48	110	240
mA	180	170	40	40
mA	170	180	40	40

Power used per color.  
 0-150 + 20 Flashes per min.  
 \*C -30 + 50  
 \* Must specify voltage suffix...  
 \*GN (24VAC/DC), \*A (110VAC),  
 \*C (240VAC)

## ROTATING BEACON - Series TWS

FIAMENT BULB, 10 WATT

Part Number	Lens Color	List Price 12/24V	List Price 110/240V
TWS-RB1-*	blue	\$168.00	\$199.00
TWS-RB2-*	amber	\$168.00	\$199.00
TWS-RB3-*	red	\$168.00	\$199.00
TWS-RB4-*	green	\$168.00	\$199.00
TWS-RB5-*	yellow	\$168.00	\$199.00
TWS-RB6-*	clear	\$168.00	\$199.00

\*Must specify voltage suffix...  
 \*M (12VAC/DC), \*G (24VAC), \*N (24VDC),  
 \*A (110VAC), \*C (240VAC)



Rotating Beacon available as stand-alone unit to be mounted on 1/2" NPT pipe or optional mounting accessories. See pages 240 & 243.

HALOGEN, 20 WATT

Part Number	Lens Color	List Price 24V	List Price 110/240V
TWS-RBH1-*	blue	\$163.00	\$233.00
TWS-RBH2-*	amber	\$163.00	\$233.00
TWS-RBH3-*	red	\$163.00	\$233.00
TWS-RBH4-*	green	\$163.00	\$233.00
TWS-RBH5-*	yellow	\$163.00	\$233.00
TWS-RBH6-*	clear	\$163.00	\$233.00

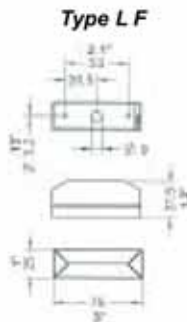
\*Must specify voltage suffix...  
 \*G (24VAC), \*N (24VDC),  
 \*A (110VAC), \*C (240VAC)  
 Halogen not available in suffix M (12VAC/DC)

## CONTINUOUS LIGHT BAR with LED INTEGRATED

NEMA 1, 12, 3R  
(IP54)



LD-LF  
LD-LB



*CONTINUOUS*			*FLASHING*	
Part Number	Lens Color	List Price 24V / 110V	Part Number	List Price 24V/110V
LD-L F-2A *	amber	\$42.00	LD-L B-2A *	\$73.00
LD-L F-3R *	red	\$42.00	LD-L B-3R *	\$73.00
LD-L F-5Y *	yellow	\$42.00	LD-L B-5Y *	\$73.00
LD-L F-4G *	green	\$62.00	LD-L B-4G *	\$93.00
LD-L F-1B *	blue	\$62.00	LD-L B-1B *	\$93.00
LD-L F-6C *	clear	\$72.00	LD-L B-6C *	\$93.00

0-150 + 20 Flashes  
per min. | \*C -30 + 50

\* Must specify  
voltage suffix...  
 \*GN (24VAC/DC)  
 \*A (110VAC)  
 \*C (240VAC)

## SIRENA INTERNATIONAL SAFETY BEACONS

As a major international beacon manufacturer, Sirena Beacons and Towerlights are designed to INTERNATIONAL industrial standards. To designate this, Sirena components are marked CE.

For specific test data and approval, contact EECONTROLS in New York. General lower voltage controls, 24 Volt AC and DC **do not require** specific code approvals, similar to electronic and computer design requirements. UL/CSA are not required on 24 Volt systems. Sirena Series LX Light Towers and Industrial Beacons are marked CE only. Series TWS Towelites are marked CE and UL/CSA.

The common IP standards are per INTERNATIONAL CE regulations. As an example, IP66 designates:

