

**PRODUCT OVERVIEW**

The TSL series of self-luminous exits are designed for easy installation. The use of internally sealed tritium gas as the illumination source reduces general maintenance issues and operational costs. The TSL series does not require electrical power, wiring or batteries. The TSL series is available in single or double face versions. Housings are available constructed from durable corrosion resistant thermoplastic or industrial grade aluminum, please specify when ordering. The TSL series is offered in 10 or 20 year versions.



**EXTERNAL SPECIFICATIONS**

The TSL series housing is available constructed from durable, corrosion resistant ABS thermoplastic or optional industrial grade aluminum. The TSL housing is supplied standard with a red on white stencil and white or black frame finish. Wall, ceiling or end mounting configurations are available. Single or double face versions must be specified. Removable field adjustable chevron arrows are standard on each unit.

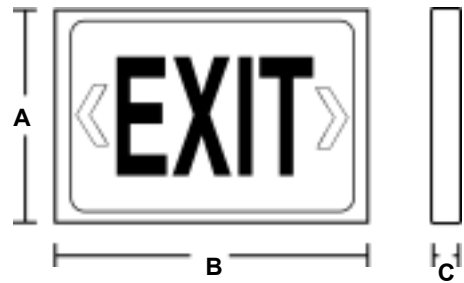
**INTERNAL SPECIFICATIONS**

SELF-LUMINOUS: standard self-luminous versions are internally illuminated by maintenance free sealed tritium tubes. Tritium source illumination provides constant emergency illumination ranging from ten (10) to twenty (20) years.

**INSTALLATION**

The TSL series exit is suitable for surface ceiling, wall and end mounting. Suitable for wet location installations on normally inflammable surfaces.

**DIMENSIONS (in.)**



Series	A"	B"	C"
TSL	8"	12"	1.8"

**ORDERING INFORMATION**

Series	Model	Duration	Face No.	Stencil	Frame	Mounting	Options
TSL	PT (plastic frame)	10 (ten years)	1 (single)	R (red)	W (white)	W (wall)	CC (custom color - specify)
	AT (aluminum frame)	20 (twenty years)	2 (double)	G (green)	B (black)	C (ceiling)	SW (special wording - specify)
	IN (institutional frame)					E (end)	PK12 (12" pendant kit)

EXAMPLE: TSL-IN-10-1-RB-W  
 DESCRIPTION: TSL self-luminous exit, institutional frame, 10 years, single, red stencil, black frame, wall mount.



# TSL Technical Data

## PRACTICAL DESIGN

The TSL series has been designed to perform in just about any environment. Requiring no external power source, installation is effortless and efficient. The practical design of the TSL series allows installation and maintenance to be at a minimum. Since an external power source is not required, the installation of the TSL series is not restricted by location or the lack of an easily accessible power source.

## EFFICIENT PERFORMANCE

The TSL series is a completely self-powered, illuminated exit sign requiring no external power source of any kind. Barring destruction of the unit, the TSL series self-luminous sign must be accounted for as being totally reliable during its predicted life. The TSL series exit sign is always "ON" requiring no wiring or electrical installation, and as a practical and environmental matter, consumes no power of any kind. The TSL series average life expectancy is 10 - 20 years.

## LIGHT SPECIFICATIONS

The TSL series uses self-luminous tritium as a light source. Although this source emits light, it cannot be considered or measured in the same sense as incandescent (point) sources, where light is emitted evenly from an area rather than a point surface. The conventional unit of measurement is the microlambert. For convenience, the following definitions are provided:

Lambert = The unit of brightness equal to  $1/\text{candles}/\text{cm}^2$   
Foot Lambert = The unit of brightness equal to  $1/\text{candles}/\text{ft}^2$   
= approximately 1000 microlamberts (the conversion factor is microlamberts =  $1076 \times$  foot lamberts, and foot lamberts = microlamberts /1076).

## MECHANICAL SPECIFICATIONS

The TSL series is manufactured under stringent quality control procedures and meet all requirements of the Atomic Energy Control Board (AECB) and the Federal Nuclear Regulatory Commission. Illumination is achieved by using a permanent internal light source. Tritium emits relatively low energy beta particles that bombard the phosphorus coated glass tubes, this action generates light. Light emitting phosphors are designed and selected according to their color and light production efficiency. The TSL series features several glass envelopes (tubes) that are encased behind plastic housing light diffusers. To reduce chances of breakage, the TSL series features tritium tube shockproof mountings made of PVC.

## PRODUCT REGISTRATION

The TSL series requires that the manufacturer register the actual installation location of every self-luminous tritium exit sold. When ordering the TSL series, Beghelli USA will require that included on the purchase order is the end users address, phone number and contact name. Beghelli USA will then register the installation with the Federal Nuclear Regulatory Commission as per required by law.

## WARRANTY

The TSL series comes from the factory with an unconditional warranty up to 20 years.