LINEARlight MULTI FLEX
Flexible LED Strip



Key Features & Benefits

- Long life: Up to 50,000 hours with proper thermal management
- Entire strip consists of 96 LEDs
- Length of entire strip is 3.17 ft. (965mm)
- Available in warm white and cool white color temperatures
- Optimal operation with OPTOTRONIC OT 24V power supplies (Literature code ECS050R1)
- Minimal heat generation
- Low profile <16.6mm
- IP67 Rated

The SYLVANIA LINEARlight MULTI FLEX provides new dimensions for innovative lighting.

LINEARlight MULTI FLEX modules offer exciting new possibilities for general illumination applications. They provide an alternative choice for linear applications such as cove lighting, refrigeration cases and pathway marking.

LINEARlight MULTI FLEX modules are ideal for edge lighting transparent and diffuse materials. They provide an optimal solution for precise backlighting of complex contours. They can also be used for lifesaving/rescue sign lights and commercial signs and for marking contours like escape routes, borders and stairs.

OPTOTRONIC® power supplies from SYLVANIA are specially designed to operate the LINEARlight MULTI FLEX modules. A wide range of 24V power supplies are available.

Product Offering

Ordering Description	Maximum Wattage (W)	Color
LLMULTIFLX/THN/W3-827-3.2FT	6W per module	White-2700K
LLMULTIFLX/THN/W3-865-3.2FT	6W per module	White-6500K
LLMULTIFLX/THN/W3-880-3.2FT	6W per module	White-8800K

Mounting Accesories

LLMULTIFLX/INSTALL-SCREWS – used with all products
LLMULTIFLX/INSTALL-TOOL – used with all products
LLMULTIFLX/STR-CHANNEL-3.2 FT – used with 70182 and 70205
LLMULTIFLX/THN/FLX-CHANNEL-3.2 FT – used with 70181
LLMULTIFLX/THN/STR-CHANNEL-3.2 FT – used with 70182 and 70205

Note: All products can fit in all channels and be secured with small screw, but it is not recommended for ultimate performance.

Application Information

Applications

Cove lighting
Edge lighting transparent/ diffuse materials
Border marking
Commercial signs
Emergency/Rescue signs
Path & contour marking
Backlighting complex contours
Refrigeration cases
Display shelves
Recessed lighting

Specifications and Certifications

c UL us LISTED

The SYLVANIA LINEARlight MULTI FLEX is UL2108 Listed for US and Canada Class 2 Unit (UL file # E247649)

RoHS Compliant

Listed in Sign Components Manual (SAM)

SEE THE WORLD IN A NEW LIGHT SYLVANIA

Specification Data

Catalog #	Type
Project	
Comments	
Prepared by	Date

Ordering Information

Item Number	Ordering Abbreviation	Color	Max. Watts	Volts (Vdc)	Current (Amps)	Viewing Angle (°)	Number of LEDs	Color Temp (K)	Luminous Flux (lm)	Lumens per foot	Width (mm)
70205	LLMULTIFLX/THN/W3-827-3.2FT	white	6.0	24	0.25	45	96	2700	83	26	8
70182	LLMULTIFLX/THN/W3-865-3.2FT	white	6.0	24	0.25	45	96	6500	180	56	8
70181	LLMULTIFLX/THN/W3-880-3.2 FT	white	6.0	24	0.25	45	96	8800	88	28	7

Mounting Accessories

Item Number	Product Description	Length (mm)	External Width (mm)	Height (mm)	Internal Width (mm)	Base Width (mm)
70220	LLMULTIFLX/INSTALL – SCREWS					
70207	LLMULTIFLX/INSTALL – TOOL					
70206	LLMULTIFLX/STR-CHANNEL – 3.2 FT**	1000	9	18.5	8	20
70187	LLMULTIFLX/THN/FLX-CHANNEL – 3.2 FT*	1000	9	9	7	8
70188	LLMULTIFLX/THN/STR-CHANNEL – 3.2 FT**	1000	9	16.5	8	20

* Flex channel only used with 70181
** 70206 and 70188 can be used with 70205 and 70182

Power Supply Ordering Information

	OPTOTRONIC® 20W (51512)			OPTOTRONIC 75W (51513, 51514)			OPTOTRONIC 96W (51511)		
LED Description	No. of Modules	Max. Length (ft)	Load Wattage (w)	No. of Modules	Max. Length (ft)	Load Wattage (w)	No. of Modules	Max. Length (ft)	Load Wattage (w)
LLMULTIFLX/THN/W3-XXX-3.2 FT	3	9.6	18	12	3.2	72	16	3.2	9

XXX represents color temperature.
Packaging information: Case qty.: 10 Min. order qty.: 1

Ordering Guide

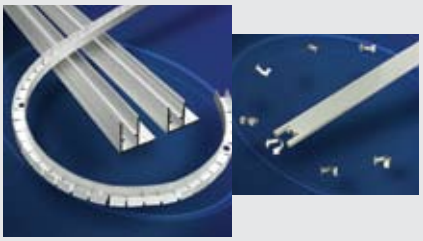
LL MULTI FLEX	/	THN	/	W3-888
LINEARlight				White
MULTI FLEX				8500K

Minimum and Maximum Ratings

Parameter	Symbol	Values
Operating Temperature	T_{op}	-10 to +40°C (-18 to +104°F)
Storage Temperature Range	T_{stg}	-40 to +85°C (-22 to +185°F)
Voltage Range	V_{max}	23 – 25V_{dc}

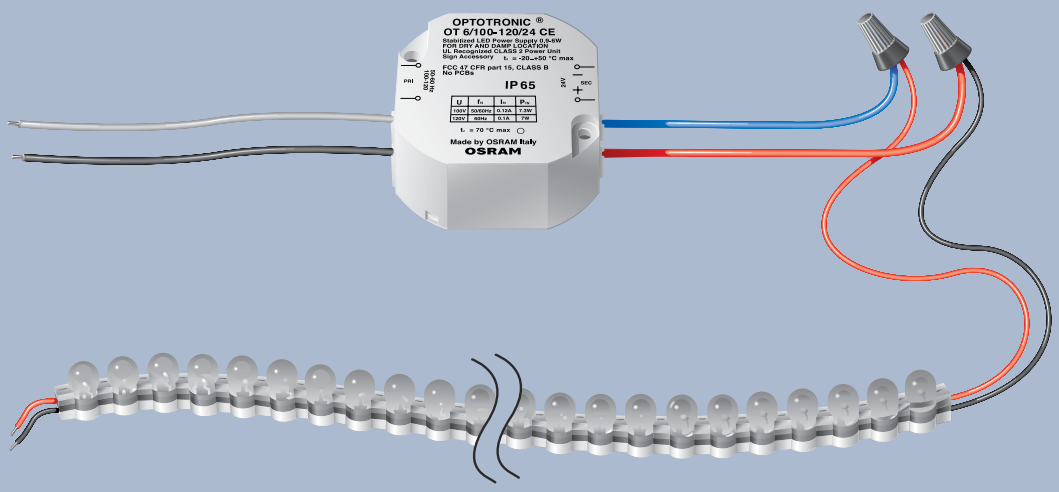
1. Temperature should be measured at any point on the module. Operating temperature range for red and yellow modules is -30°C to +85°C.
2. The maximum operating range at any point (up to 75°C) is to specify the absolute maximum Tc temperature without causing permanent damage to the LEDs.
*Maximum rated life can be achieved if maximum temperature does not exceed 40°C.

Accessories



Item Number	Ordering Abbreviation	Description
70206	LLMULTIFLX/STR-CHANNEL	Used with 70182 & 70205
70187	LLMULTIFLX/THN/FLX-CHANNEL	Used with 70181
70188	LLMULTIFLX/THN/STR-CHANNEL	Used with 70182 & 70205
70220	LLMULTIFLX/INSTALL-SCREWS	
70207	LLMULTIFLX/INSTALL-TOOL	

Assembly Diagram



Safety Information

1. The LED module and all of its components must not be subjected to mechanical stress.
2. Assembly must not damage or destroy conducting paths.
3. The LED module incorporates no protection against short circuits, overload or overheating. Therefore, it is absolutely necessary to operate the modules with an electrically stabilized power supply offering protection against the above mentioned safety risks. OPTOTRONIC power supplies are specifically designed with protection features for safe operation. Use of third party power supplies is not recommended.
4. Installation of the LED Modules and SYLVANIA LED power supplies should adhere to all applicable electrical and safety standards. Only qualified personnel should perform installations.
5. Correct electrical polarity needs to be observed. Incorrect polarity may destroy the module.
6. All LED modules, up to the maximum number allowable for the power supply, should be installed in a parallel electrical connection (red to red and black to black), with a maximum of three modules in series. See note #2 in the Electrical Connection section on next page.
7. Pay attention to standard ESD precautions when handling and installing the module.
8. Only install according to the parameters outlined in the Assembly Information section.

Assembly Information

For complete installation requirements, refer to the LINEARlight MULTI FLEX User Guide

Precautions

1. The LED module will not stretch like ordinary rubber. Stretching will cause damage to the internal circuits.
2. Do not pull on the lead wires as there is risk of damage to the circuit.
3. Bending of the module can be accomplished only at the spaces between the LED. Avoid strained angles. Do not bend the LED module in the vertical axis.
4. Apply even force over the entire LED module when inserting into an aluminum channel.

Power Supply Selection

1. Refer to the section Power Supply Ordering Information for identification of the power supply requirement for a specified LED load.
2. The LINEARlight MULTI FLEX requires a 24Vdc Power supply. Each LED module has a maximum load rating of 6 watts. Do not operate an LED load in excess of the capacity of the power supply.

Electrical Connection

1. The LED module is equipped with polarized wires (red – positive, black – negative). Connect the low voltage load side of the power supply to the LED module ensuring correct polarity of the electrical connection. Crimp style or wire nut may be used along with insulating tape or shrink tubing.
2. Up to 3 LED modules can be connected in series to a single power feed connection. For large installations, connect multiple (3 module sets) in parallel.

Cutting

1. Cutting the LINEARlight MULTI FLEX LED module is possible every 6 LEDs. Please refer to the LINEARlight MULTI FLEX User Guide for the exact location.
2. Apply silicone sealant after cutting the module.
3. Each module can be cut into no more than two workable sections. You must maintain the end sections with the existing leads. Middle sections without leads cannot be used.

Definition of a UL 2108 listed Low Voltage Lighting System as it pertains to this module includes: 1. A UL Listed Class 2 power supply. 2. An appropriate number of SYLVANIA's LINEARlight MULTI FLEX LED modules based on the recommended max number of modules listed. 3. Splice connectors/cable systems. 4. Mounting channel.

The power supply must be mounted, wired, and grounded in accordance with all applicable NEC and ANSI standards.

All modular connections on the secondary side of the power supply must be made using an appropriate UL rated splice connection means. This connection means must be rated for the environment it is installed into. If additional wires and/or splice connections are necessary, wires are to be UL Listed and splice connectors must be UL rated and chosen of appropriate size for number and size of wires to be connected. WARNING: the low voltage secondary circuit shall not be grounded.

This information shall not supersede the requirement to follow all other safety, assembly and any other instructions listed in this document.

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