

Bright, flexible and economical.

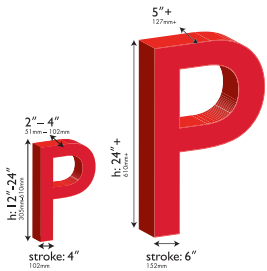
When Nitro by Permlight for Signs, was introduced, it brought with it, the next giant leap in high-output LED system performance in a small package – a first for the sign industry.

This mighty system delivers high-output performance while providing the flexibility necessary for installation in small channel letters or applications with tight returns.

Like all Permlight LED lighting systems, Nitro is the brightest, most efficient and best performing at the lowest overall cost of ownership. These new modules shine brighter, consume less energy and deliver the lowest cost per lumen.

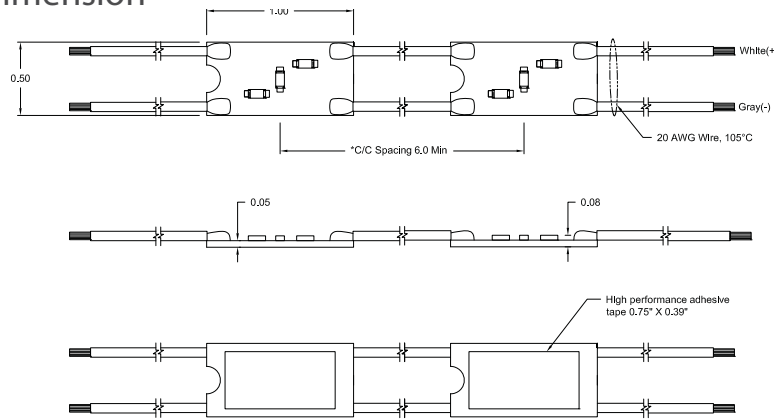
This new system is designed for efficiency, reliability, and optimum high-output performance, and the result is a gain from bright to brightest. Nitro has also gained a well-deserved reputation for delivering the brightest output of any small form factor LED system.

And since this system utilizes Permlight’s patented thermal management technology, it requires the lowest material count to manufacture, thus reducing the systems overall carbon footprint dramatically.



led
modules

Mechanical Dimension



DIMENSIONS ARE IN INCHES
TOLERANCES:
X.XX = ± 0.01"
X.X = ± 0.1"

* Other C/C spacing is available upon request

Technical Specifications

Product Warranty.....	5 Year Limited (see Permlight for Signs website for details)
LED Module Dimension	1.00" (25.40mm) x 0.50" (12.70mm)
Power Consumption, Estimated Life	(see color specification matrix)
Content Per Package	50 modules per package
Operating Temperature @ 90% relative humidity	-40°C to +50°C
Maximum Input Voltage	12.3VDC
Recommended Modules per Foot	2
System Certifications:	
UL Recognized File	E213411
UL Classified File (retrofit applications)	E246705

Required Components

60-12D	60 Watt LED Driver (120-240 VAC Input - 12 VDC Output)
60-12D-A.....	60 Watt LED Driver (120 VAC Input - 12 VDC Output)
250-12DC.....	240 Watt LED Driver (120 VAC Input - 12 VDC Output)
250-12DC-240.....	240 Watt LED Driver (240 VAC Input - 12 VDC Output)
250-12DC-277	240 Watt LED Driver (277 VAC Input - 12 VDC Output)

Color Specification

Part Number	Color: Wavelength (nm)/ Temperature (K)	Est. Life @ 70% Light Output (hours)	Avg. Power per Module (Watts)	Max. Modules 60-12D ^[1] (units)	Max Modules 250-12DC ^[2] (units)
PFS1820W28	Warm White (2800K)	40,000	1.5	40	160 (40/channel)
PFS1820W35 ^[3]	Halogen White (3500K)	40,000	1.5	40	160 (40/channel)
PFS1820W41 ^[3]	Fluorescent White (4100K)	40,000	1.5	40	160 (40/channel)
PFS1820W51 ^[3]	Neutral White (5100K)	40,000	1.5	40	160 (40/Channel)
PFS1820W65	Daylight (6500K)	40,000	1.5	40	160 (40/channel)
PFS1820W80	Ultra White (8000K)	40,000	1.5	40	160 (40/channel)
PFS1820G ^[3]	Green (525nm)	40,000	1.5	40	160 (40/channel)
PFS1820B	Blue (470nm)	40,000	1.5	40	160 (40/channel)

Notes: ^[1] 60-12D series is a single channel 60 Watt LED Driver, see Product Specification Sheet for more information. ^[2] 250-12DC series is a 4 channel 240 Watt LED Driver, with a rated output of 60Watts per channel. ^[3] Custom color. Please allow up to 8 weeks for delivery.