

## General Information for Flexiprint and LED Modules

### Basic information

- Only use rated input voltage of DC12V  $\pm$ 5% or of DC24V  $\pm$ 5% with these Flexiprint and LED modules.
- Use in an environment with humidity of 30-80% and within the temperature range specified.
- For indoor use only; not to be used in an environment with humidity above 80%, not to be used in direct sunlight.
- IP64, IP67 and IP68 Flexiprint will lose waterproof-protection after being cut.
- The Flexiprint can not be used in an environment with acid and/or alkali.
- Not suitable for ultraviolet bath
- All Flexiprint got MSL 3

### Colour offset for IP64, IP67 and IP68 with silicone cover

- The indicated colour temperature of the IP64, IP67 and IP68 Flexiprint is determined by the colour temperature of the built in LEDs. The emitted colour of the IP64, IP67 and IP68 Flexiprint will differ from the indicated colour due to the silicone cover over the LEDs acting as a filter. The emitted colour will tend to be colder than the indicated colour, in other words the light colour will have a stronger blue spectrum than indicated. The effective resulting colour output is furthermore influenced by temperature, humidity, thickness of silicone cover and the colour temperature of the built-in LED. Since there are many factors determining the effective colour output, the effective emitted colour can only be defined in a rough range:

Colour specification of the LED	Effective emitted colour with silicone cover
H = 2600-2800°K	~2900-3400°K
N = 2800-3100°K	~3800-4500°K
S = 3800-5000°K	~5000-7000°K
W = 5500-6700°K	~8000-13000°K

### Brightness offset for IP64, IP67 and IP68 with silicone cover

- The indicated brightness of the IP64, IP67 and IP68 Flexiprint is determined by the brightness of the built in LEDs. The effective emitted brightness will be different for IP64, IP67 and IP68, due to silicone acting as a filter. The reduction of light output for IP64 products is about ~10%, for IP67 and IP68 products about ~15%.

### Installation guidelines

- Only a professional and qualified electrician is allowed to install, repair and connect Flexiprint and LED modules.
- ESD safety has to be ensured when handling and installing LED products.
- Cut Flexiprint only at cut markings.
- Do not edge-bend or overbend and do not repeatedly bend Flexiprint products. The allowed bending radius for Flexiprint in IP20 is min. 30mm, for IP64 is min. 60mm, for IP67 and IP68 is min. 100mm.
- Flexiprint have to be installed on a clean, even and solid heat dissipative surface, e.g. an aluminium profile. Do not cover the Flexiprint. The operating temperature of an installation has to be kept within the specified temperature range in order to ensure normal lifetime and performance of the LED products. Do not install Flexiprint directly on wood, plastic, paint or any flammable surface. If the heat dissipation is insufficient the Flexiprint will get damaged by overheating and may even start to burn.
- Choose the appropriate power supply according to the voltage and power consumption of the LED strips in use. The input voltage has to be in conformance with the working voltage of the strip. If the input voltage is higher than the actual working voltage, it will damage the power supply or the Flexiprint, if the input voltage is lower, the performance of the strip will be poor and the brightness may be reduced. We suggest to choose a power supply which has a load of maximum 75-80% of its rated power capacity. If the power supply has loaded rated watts at the same level as the strip has its working power, an overload may occur which will shorten the driver lifespan or excessive heating may burn the driver and even the Flexiprint.
- Mode of connection: with standard single color products, the red wire indicates the positive pole, the black wire the negative pole; with RGB and RGBW products, the black wire indicates the positive pole, and the red/green/blue/white wire indicate the corresponding LED chip color.
- Do not connect several Flexiprint in a row (serial connection). Serial connection may cause voltage drop which will result in an unequally distributed light output (beginning of strip is brighter than the end) and may cause the strip to overheat and start to burn. In order to use more strips in one installation, connect strips in parallel. Refer to the wiring instructions for a parallel LED strip installation.
- Do not touch the LED products while it is powered on.
- Turn off the power in case of any failure. Do not power-on the installation before having it verified by a professional electrician.
- The LED products in this catalogue are electronic components and not finished products. The installer and/or user is responsible that the installed application is in compliance with all relevant and applicable regulations. The installed product has to be protected from any accidental contact.