### **Product datasheet**





### Mini-1

P/N: M21Gx02A

P/N: M21Gx02A-H (high-efficiency)

### **Areas of application**

- Signage and illuminated advertising.
- Backlighting of channel letters and block letter.
- Best for 30mm to 100mm depth (1.2inch to 4inch).

#### **Product main benefits**

- Uniform and efficient illumination at high LED pitches thanks to oval optics design.
- Very small module size design can be flexible in application.
- IP67.
- 5 Years warranty.
- 3 SDCM.
- 160 lm/W.











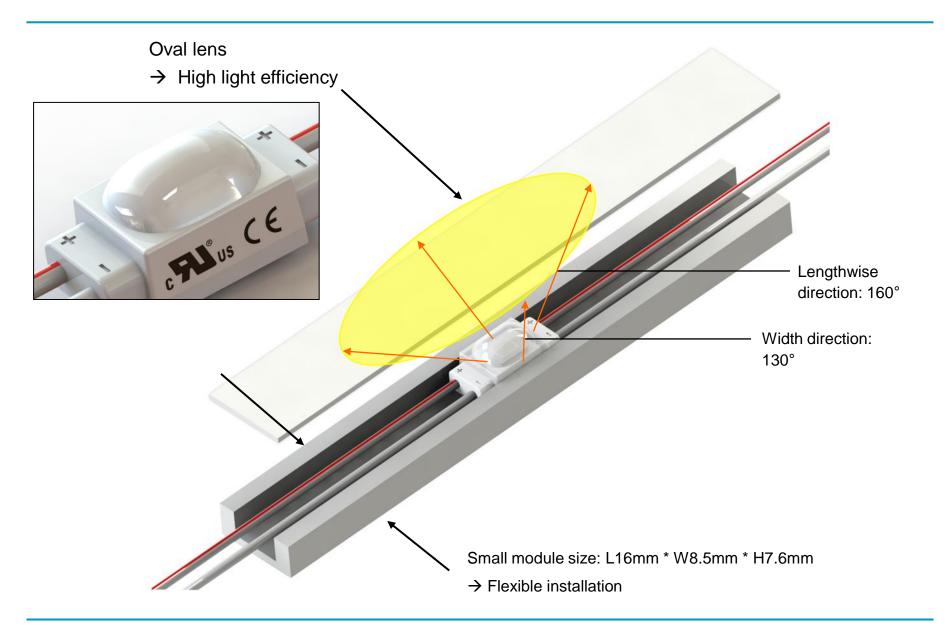




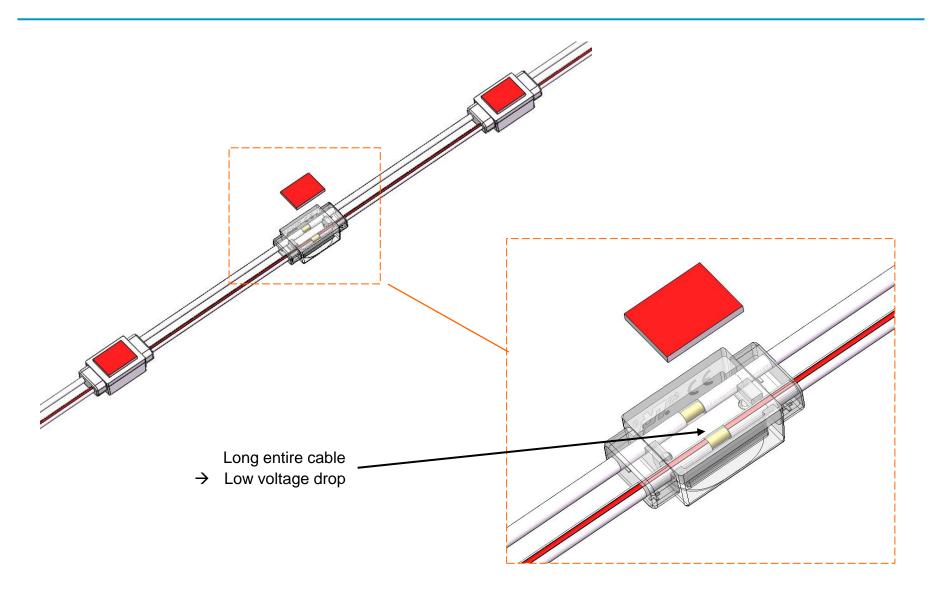


# **Technology**









## **Electrical data**



| PART NUMBERS | Typical<br>Voltage | Energy<br>Consumption<br>(W/module) | Energy<br>Consumption<br>(W/chain) | Energy<br>Consumption<br>(W/ft.) | Additional<br>Information<br>(modules/chain) |
|--------------|--------------------|-------------------------------------|------------------------------------|----------------------------------|--|
| M21Gx02A-H   | 12VDC              | 0.3                                 | 30                                 | 2.3                              | 100  |
| M21Gx02A     | 12VDC              | 0.36                                | 36                                 | 2.2                              | 100  |

### Remark:

- 1. Ranking at  $t_a = 25^{\circ}C$ .
- 2. Constant voltage design.

## **Photometrical data**



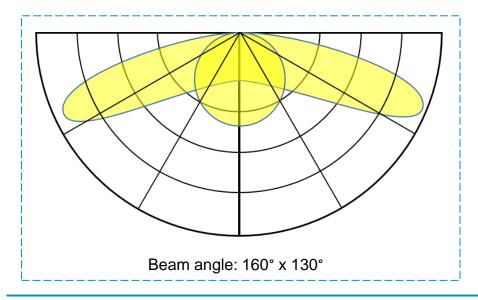
| PART NUMBERS | Light color<br>(designation) | Color<br>(CCT, wavelength) | Typical Brightness<br>(lumen/module) | Typical<br>Brightness<br>(lumen/chain) | Typical Brightness<br>(lumen/ft.) |
|--------------|------------------------------|----------------------------|--------------------------------------|--|-----------------------------------|
| M21GN02A-H   | Warm white                   | 3000K/4000K                | 43                                   | 4300                                   | 328                               |
| M21GW02A-H   | White                        | 5000K/6500K/7100K          | 48                                   | 4800                                   | 366                               |
| M21GW02A-H   | Cool White                   | 8000K/10000K               | 43                                   | 4300                                   | 328                               |
| M21GW02A     | White                        | 3000K - 10000K             | 41                                   | 4100                                   | 250                               |
| M21GR02A     | Red                          | 620-625 nm                 | 6                                    | 600                                    | 46                                |
| M21GG02A     | Green                        | 520-525 nm                 | 25                                   | 2500                                   | 191                               |
| M21GB02A     | Blue                         | 465-470 nm                 | 5                                    | 500                                    | 38                                |

- 1. Ranking at  $t_a = 25^{\circ}$ C.
- 2. Tolerance of measurements for brightness is ±10%, tolerance of measurements for the Chromaticity Coordinate is ±0.01; the tolerance of CCT should be calculated accordingly.

# **Application Conditions and light distribution**

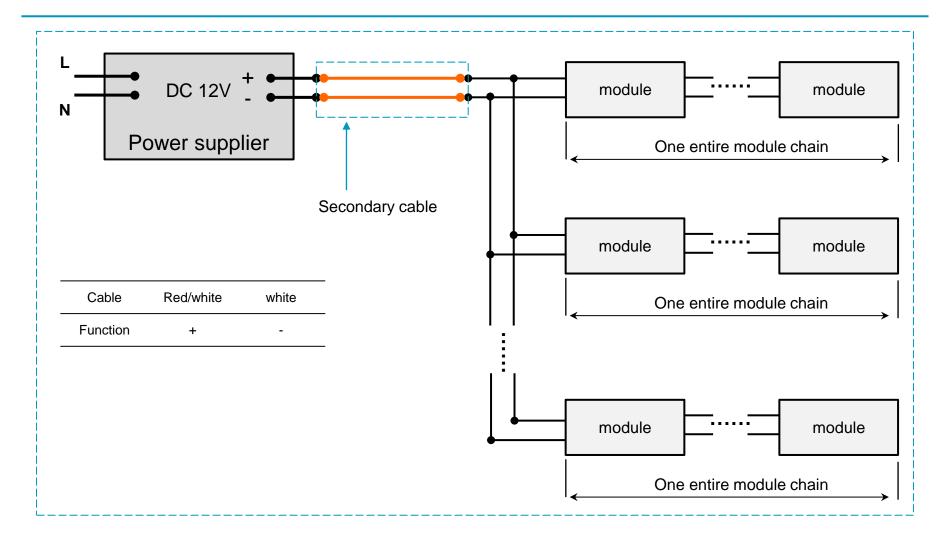


| Operating Environment ( t <sub>a</sub> )     | -25°C to +55°C                   |  |
|--|----------------------------------|--|
| Storage Temperature Range ( t <sub>s</sub> ) | -40°C to +85°C                   |  |
| IP Rating                                    | IP67                             |  |
| Lifetime (L70B50)                            | 50,000 hours                     |  |
| tc temperature                               | <b>80</b> °C                     |  |
| Dimming mode                                 | Dimmable                         |  |
| Cutting Resolution                           | Cut on wire between every module |  |



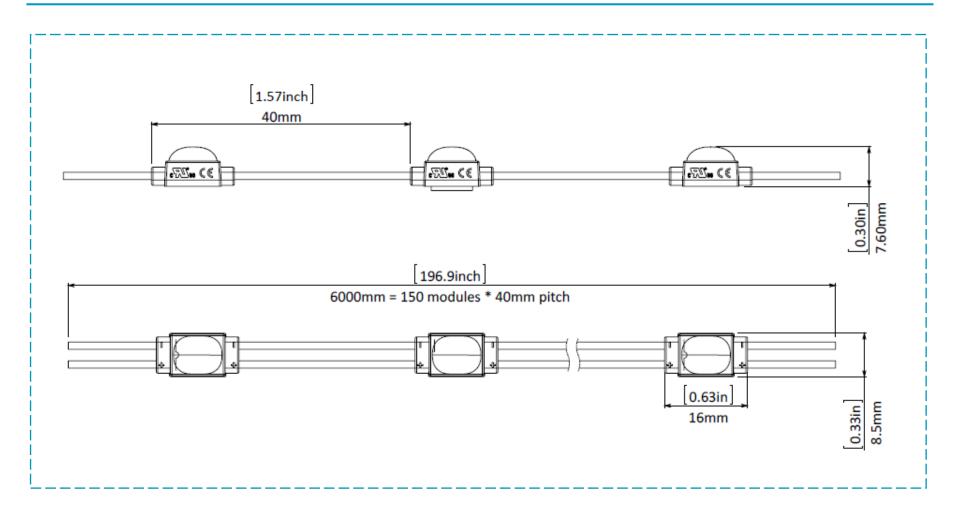
# Wiring method



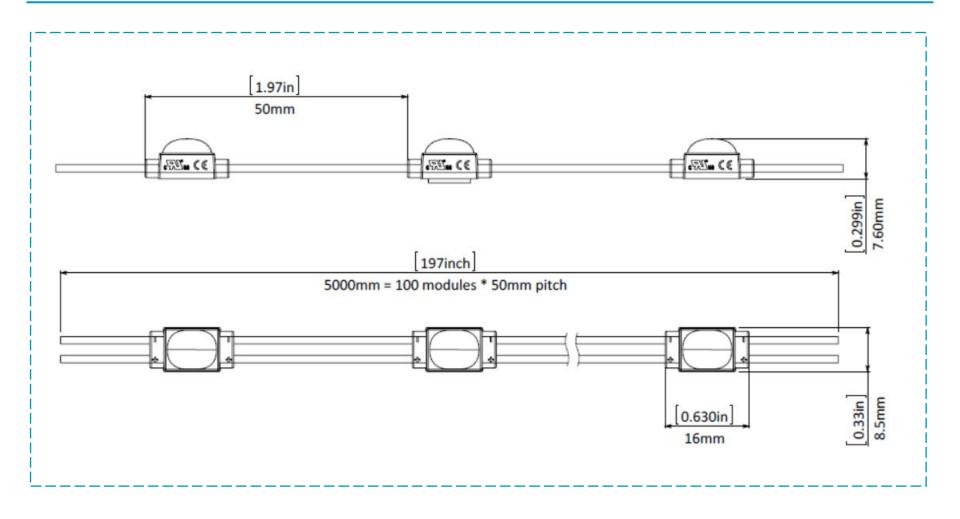


# **Drawing (M21Gx02A-H)**









## Package and additional information



| PART NUMBERS | Package unit (modules/carton box) | Carton box Dimensions (length x width x height) |
|--------------|-----------------------------------|---|
| M21Gx02A     |                                   |   |

#### Additional information:

- Installation of LED modules (with power supplies) needs to be made under consideration of all valid regulations and norms.
- Installation by qualified electrician only.
- Parallel connection is mandatory for safe electrical operation. Serial connection of LED modules is discouraged.
  Unbalanced voltage drop in serial connection can cause hazardous overload
- Electrical contact is achieved with the contact cables or the terminals of the module. Please refer to the technical data for maximum number of LED modules that can be operated on one control gear.
- To avoid mechanical damage, the LED modules have to be attached securely to the intended mounting surface. It is recommended to avoid heavy vibration.
- LED modules are dimmable by means of PWM (pulse width modulation).