


| Model       | Code       | Colour        | CCT / λ       |
|-------------|------------|---------------|---------------|
| HM30M-1CW12 | HTL 000712 | Cool white    | 8000 k        |
| HM30M-1W12  | HTL 000713 | White         | 6500 k        |
| HM30M-1NW12 | HTL 000714 | Natural white | 4000 k        |
| HM30M-1WW12 | HTL 000715 | Warm white    | 3000 k        |
| HM30M-1G12  | HTL 000716 | Green         | 520 / 530 nm. |
| HM30M-1B12  | HTL 000717 | Blue          | 460 / 470 nm. |

### Features

|   |  |
|---|--|
| Module operating Voltage                        | DC 12 V  |
| Wattage ( W/Module )                            | 0,3 W  |
| International protection level                  | IP66 / IP67  |
| Operating temperature range                     | -40 C° ~ +60 C°  |
| Storage temperature range                       | +5 C° ~ +40 C°   |
| Storage environment humidity                    | RH < 60%   |
| IEC protection class ( with SELV power supply ) | Class III  |
| Distance ( Centre Module / Module )             | 65 mm.   |
| Viewing angle                                   | 170° x 140°  |
| Life time ( temperature Tc = 75 °C )            | 50.000h ( L70 )  |
| Consistent white light                          | < 3 SDCM   |
| Chain ( No. Modules )                           | 70 pcs   |
| Bag ( No. Modules )                             | 140 pcs  |
| Warranty ( See terms and conditions )           |  5 Anni |

### Description

The new "GEMMA" series includes a wide range of LED modules for sign lighting. The exclusive optics with prisms, the high efficiency LEDs and low luminous decay, allow to reduce the quantity of modules required per square meter compared to common modules and to illuminate in a homogeneous and efficient way with significant energy saving.

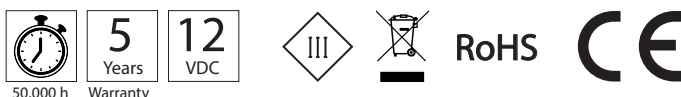
The innovative sturdy structure and the facilitated removal of adhesive protection, significantly reduce installation and maintenance costs.

### Applications

- Small and medium size channel letters illumination.
- Backlighting of single sided light boxes, depth 30 to 80 mm.
- Linear lighting.
- Architectural and decorative applications.

### Benefits

- The new prismatic optics not only optimally diffuse the light, but it minimizes the dispersion allowing a conspicuous increasing of the efficiency and luminous homogeneity.
- The 3M VHB adhesive with the special protective film removal tab offers greater security and speed in fixing operations, contributing to cost reduction.
- Consistent white light 3-step MacAdam.
- Color rendering index Ra: >80.
- Production date is marked on back of module for traceability.



**Electrical Datas**

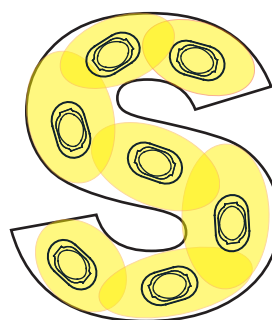
| Model       | Nominal voltage | Voltage range | Accidental reverse input voltage protection up to | Nominal wattage per chain | Nominal wattage per module |
|-------------|-----------------|---------------|---|---------------------------|----------------------------|
| HM30M-1CW12 | 12 VDC          | 11...13 VDC   | 13 VDC  | 21 W                      | 0,3 W                      |
| HM30M-1W12  | 12 VDC          | 11...13 VDC   | 13 VDC  | 21 W                      | 0,3 W                      |
| HM30M-1NW12 | 12 VDC          | 11...13 VDC   | 13 VDC  | 21 W                      | 0,3 W                      |
| HM30M-1WW12 | 12 VDC          | 11...13 VDC   | 13 VDC  | 21 W                      | 0,3 W                      |
| HM30M-1G12  | 12 VDC          | 11...13 VDC   | 13 VDC  | 21 W                      | 0,3 W                      |
| HM30M-1B12  | 12 VDC          | 11...13 VDC   | 13 VDC  | 21 W                      | 0,3 W                      |

**Photometrical Datas**



| Model       | Colour        | Colour temperature CCT / $\lambda$ | Color rendering index | Typical Luminous flux | Typical luminous efficiency |
|-------------|---------------|------------------------------------|-----------------------|-----------------------|-----------------------------|
| HM30M-1CW12 | Cool white    | 8000 k $\pm$ 5%                    | > 80                  | 32 Lm                 | 106,6 Lm/W                  |
| HM30M-1W12  | White         | 6500 k $\pm$ 5%                    | > 80                  | 32 Lm                 | 106,6 Lm/W                  |
| HM30M-1NW12 | Natural white | 4000 k $\pm$ 5%                    | > 80                  | 32 Lm                 | 106,6 Lm/W                  |
| HM30M-1WW12 | Warm white    | 3000 k $\pm$ 5%                    | > 80                  | 29 Lm                 | 96,6 Lm/W                   |
| HM30M-1G12  | Green         | 520 / 530 nm.                      |                       | 20 Lm                 | 66,6 Lm/W                   |
| HM30M-1B12  | Blue          | 460 / 470 nm                       |                       | 6 Lm                  | 20,0 Lm/W                   |

**Modules positioning**

The oval optic of module HM30M-1 is suitable to light the channel letters. Modules should be fixed with the oval shape oriented towards the length of the channel following the path, this allow to minimize the quantity of necessary modules.



This product comply with the following European Standard: ( download pdf )

|   |  |
|---|--|
|  EMC - Directive 2014/30/EU<br>EN 55015:2013/A1:2015<br>EN 61547:2009 |  General safety requirement for luminaires<br>EN 60598-2-20:2015 used in conjunction with EN 60598-1:2015+A1:2018<br>EN 62031:2020. IEC TR 62778:2014 |
|  RoHS - Directive 2011/65/EU<br>IEC 62031                             |  IP protection<br>IEC 60529:1989+A1:1999+A2:2013  |