



# DEVETECH ELECTRONICS LIMITED

Address: 11/F., Front Block, Hang Lok Building, 130 Wing Lok St., Sheung Wan, HK

Registration. Nr.: 1994258

Email: [info@devetechelectronics.com](mailto:info@devetechelectronics.com)

## SPECIFICATION FOR APPROVAL

CUSTOMER'S CODE

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DESCRIPTION                      Plastic Indicator Light

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SPECIFICATION                      12.5mm

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DATE                                      2019-04-08

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PART NO.    DVFL1P-12.5QW-2

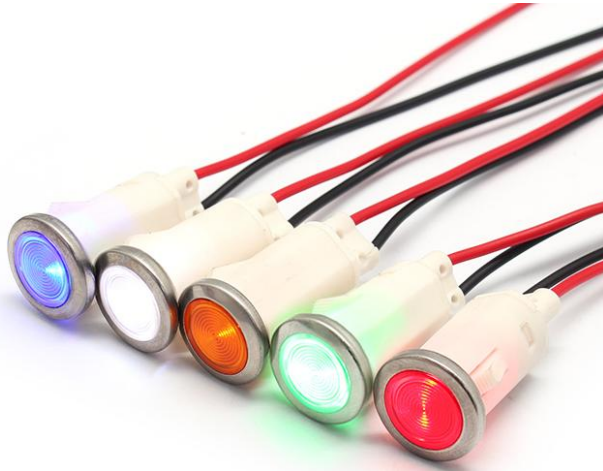
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REFERENCE No.

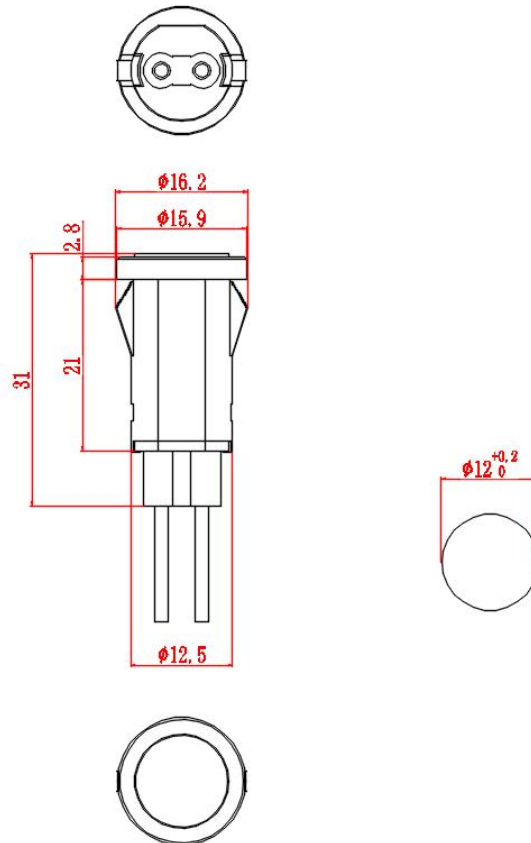
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|               |              |             |
|---------------|--------------|-------------|
| Form Designer | Qualified By | Approved By |
| Tao Song      | Qu Bin       | Chen Ping   |

## 1. Picture:



## 2. Drawing:



### 3.Component Material

| Component Name     | Material               |
|--------------------|------------------------|
| Lens               | PC                     |
| Shell              | PA66                   |
| Base               | PA66                   |
| Luminescent Source | LED                    |
| Resistance         | Carbon Film Resistance |
| Wire Leading       | PVC                    |

### 4. Performance Parameter

| Items                             | Parameter |
|-----------------------------------|-----------|
| Voltage                           | 3V-250V   |
| Rated Current                     | 20mA      |
| Rated Power                       | 0.2W      |
| Insulation and Voltage Resistance | 2000V/10s |
| Working life                      | 100,000h  |
| Cold-resistant                    | -40℃      |
| Heat-Resistant                    | +80℃      |
| LED Color                         | R/G/Y/B/W |

### 5.LED Detailed Picture





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## 6. LED Specification

### 6.1 Absolute Maximum Rating

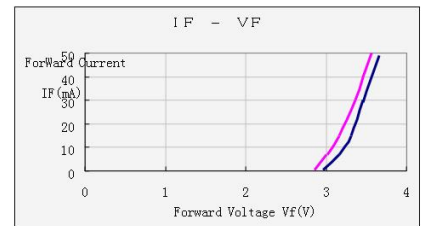
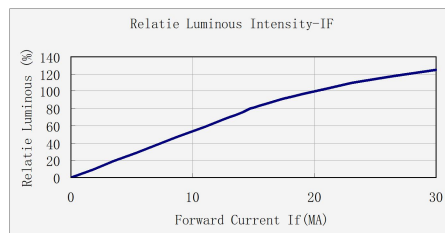
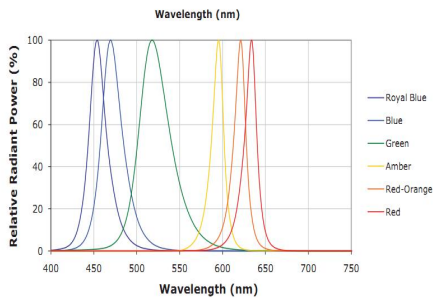
| Item                            | Symbol | Rated Value              | Unit |
|---------------------------------|--------|--------------------------|------|
| Maximum Forward Current         | IFP    | 20                       | mA   |
| Reverse Voltage                 | VR     | 5                        | V    |
| Power                           | PD     | 60                       | mW   |
| Working Temp.                   | TOPR   | -40~+80                  | °C   |
| Storage temperature             | TSTG   | -40~+100                 | °C   |
| Lead-free Soldering temperature | TSOL   | Max. 260°C for 3sec Max. |      |

### Notes:

- 1) Product photoelectric performance level, different levels of product photoelectric performance is different, please customers according to their own conditions of use to decide the use method.
- 2) The measurement of light intensity and dominant wavelength is corrected according to the CIE international standard of the human eye response curve.
- 3) When the brightness of the central axis is 50%, the luminous angle of one side is  $\theta_{1/2}$ ,  $2\theta_{1/2} = \theta_{1/2} + \theta_{1/2}$ .
- 4) The measurement tolerance of luminous intensity is  $\pm 15\%$ .
- 5) The voltage is measured with a tolerance of  $\pm 0.1$  V.
- 6) The measurement tolerance of color coordinates X and Y is  $\pm 0.015$ .

## 6.2 Product Optoelectronic Characteristics ( Ta = 25°C)

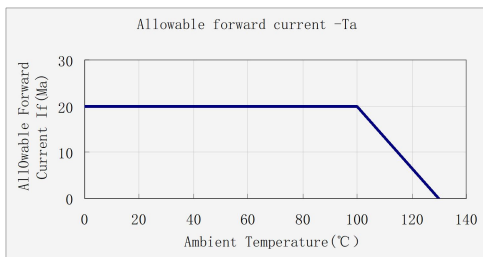
| Item                 | Symbol          | Condition            | Min. | Average Value | Max. | Unit |
|----------------------|-----------------|----------------------|------|---------------|------|------|
| Forward Voltage      | V <sub>F</sub>  | I <sub>F</sub> =20mA | 2.8  | --            | 3.2  | V    |
| Reverse Current      | I <sub>R</sub>  | V <sub>R</sub> =5v   | --   | --            | 5    | μA   |
| Angle                | 2θ1/2           | I <sub>F</sub> =20mA | --   | 60            | --   | deg  |
| Brightness           | φ V             | I <sub>F</sub> =20mA | 500  | --            | 800  | mcd  |
| Recommend Current    | I <sub>F</sub>  | --                   | --   | 20            | --   | mA   |
| Color                | cct& λ d        | I <sub>F</sub> =20mA | 520  | --            | 525  | nm   |
| Junction Temperature | T <sub>J</sub>  | I <sub>F</sub> =20mA | --   | 125           | --   | °C   |
| Thermal Resistance   | R <sub>JP</sub> | I <sub>F</sub> =20mA | --   | 8             | --   | °C/W |



Wavelength characteristics

Light intensity and forward current curves

Reverse current vs. forward voltage plot



Maximum Forward DC vs. Temperature Graph

