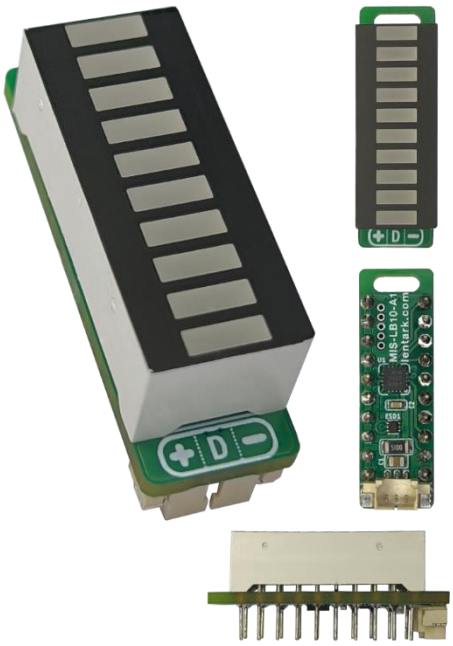
LENTARK®

# LED BAR
*LB10-A1*

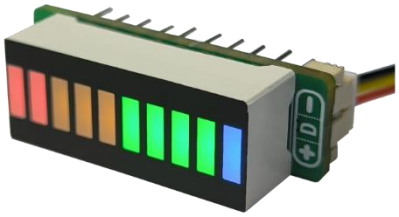
## 1. GENERAL FEATURES



- Sequential 10 LEDs:
  - 2 Red. (Top)
  - 3 Orange.
  - 4 Green.
  - 1 Blue. (Bottom)
- Easy Operation with Just 3 Wires:
  - 2 Wires: Supply. (5V)
  - 1 Wire: 0~5V Analog Input
- Low Power Consumption: 50 mW (Max.)
- LED Switching Characteristics:
  - Switching Frequency: 5 KHz
  - Duty Cycle: 10%
- Data Reading Speed: 20 Data per Second.
- Compact: Multiple products can be stacked side by side.

## 2. APPLICATION AREAS

- Status Indicators.
- Analog Sensor Indicators.
- Battery or Power Level Indicators.
- Audio Level Indicators (VU Meter).
- Industrial Control Panels.
- Game or Entertainment Equipment.
- Portable Devices.



## 3. GENERAL DESCRIPTION

MIS-LB10 is a compact and efficient sequential LED indicator that can be used for various status and level indicators. This indicator, consisting of 10 LEDs, is designed to visually monitor analog signals and provide instant feedback to the user. The 2 red LEDs at the top represent high levels or critical conditions, while the 3 orange and 4 green LEDs indicate intermediate levels. The 1 blue LED at the bottom represents low levels. When all LEDs are active, it consumes a maximum of 50mW.

The MIS-LB10 can be easily integrated with just three wires (two for power supply and one for analog input) and operates at a data reading speed of 20 data per second. With a 5 kHz switching frequency and a 10% duty cycle, it provides high precision. Additionally, its compact design allows for multiple products to be used side by side to create broader indicators.

The MIS-LB10 is suitable for a wide range of applications, from status indicators to audio level indicators, battery level to industrial control panels. Its compact and flexible design offers an ideal solution for many different applications.

# 4. PORT DESCRIPTION

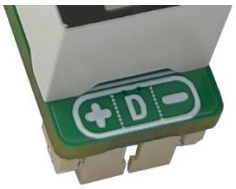



**Figure 1:** *Display of the connection port.*

**Table 1:** *Introduction of ports.*

| ***Port*** | ***Explanation*** |
|---|---|
| **+** | 5 Volt positive supply voltage input. |
| **D** | Analog signal input in the range of 0 – 5V. |
| **−** | Reference level. |

# 5. OPERATION

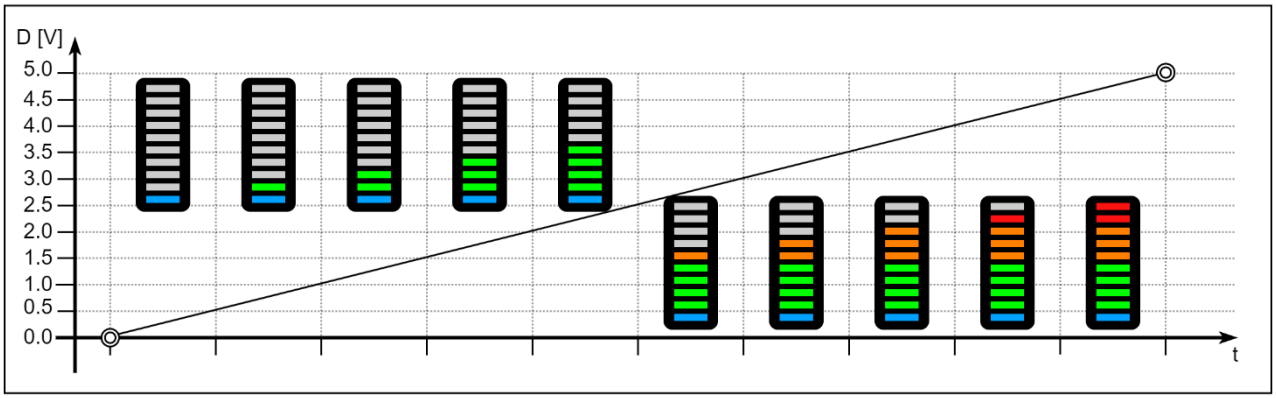



**Figure 2:** *Display of the bar LED change according to the amplitude of the analog signal at the D connection.*

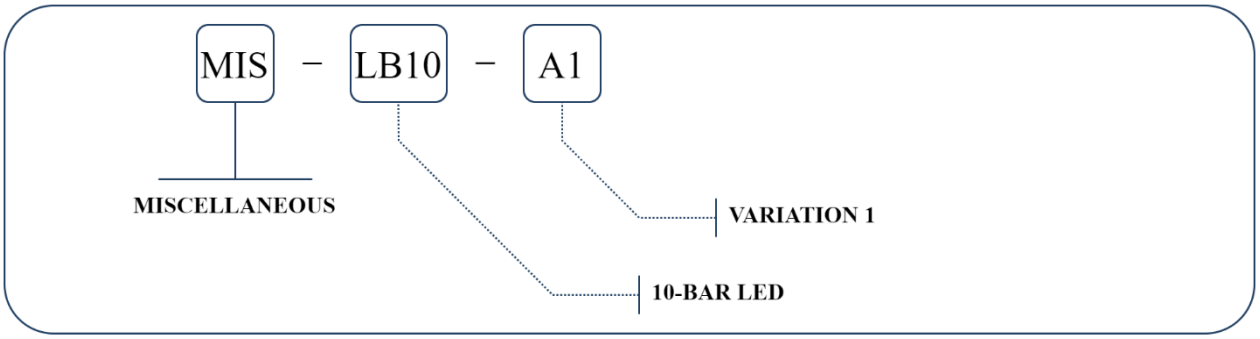
# 6. ELECTRICAL CHARACTERISTICS

∏ Forcing the device to operate beyond the levels specified as "Maximum" in the table below may cause the device to overheat and result in permanent damage. The device is not expected to function outside the operating limits specified in this technical document. Prolonged exposure to "Maximum" rating conditions may affect device reliability.

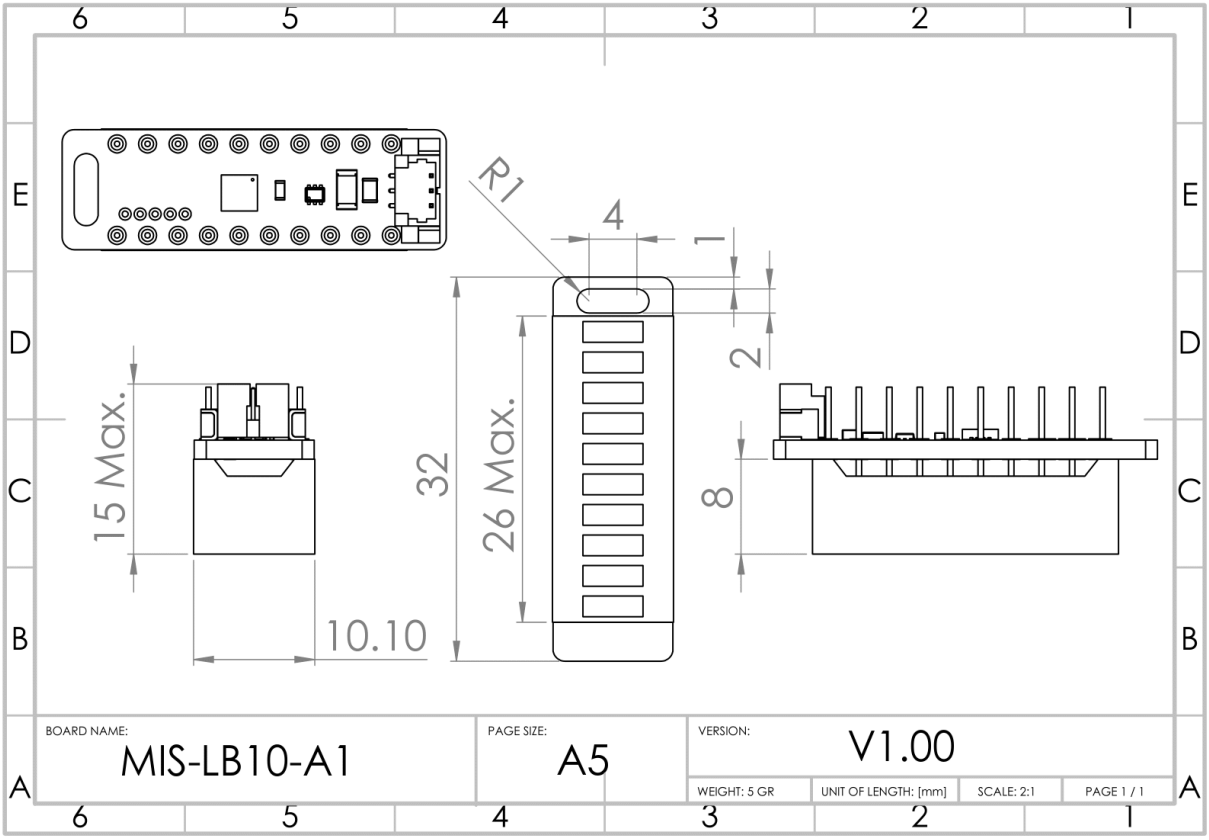
**Table 2:** *Electrical Characteristics.*

| Conditions: Unless Otherwise Specified, $T_O = +25^oC, V_+ = 5V$ | | | | | | |
|---|---|---|---|---|---|---|
| **Parameters** | **Symbol** | **Min** | **Nom** | **Max** | **Unit** | **Test Condition** |
| Supply Voltage | $V_+$ | 4.65 | 5 | 5.35 | V | DC |
| Supply Current | $I_+$ | —<br>— | 9.85<br>5.76 | —<br>— | mA<br>mA | *All the LEDs on.*<br>*Only blue LED on.* |
| LED Switching Frequency | $f_{SW}$ | 4.96 | 5 | 5.03 | KHz | |
| LED Switching Duty | $D_{SW}$ | — | 10 | — | % | |
| ADC Sampling Frequency | $f_{SAMP}$ | — | 20 | — | Samp. | |

## 7. PRODUCT CODE




## 8. TECHNICAL DRAWING




## 9. CONTACT

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