



**TMS LITE SDN. BHD.** (Co. No. 671971V)  
*LED ILLUMINATION SOLUTION PARTNER*

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## 1 Channel Analog Controller: SD-1000-D1

# USER MANUAL

Rev 1.3

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### Revision Notes

Rev	Date/Author	Comment
1.0	YVONNE	First Editor
1.1	YVONNE	Update revision
1.2	KWNG	Update Information
1.3	KWNG	Updates Drawing Layout & Photo

## General Description

### Introduction

The SD-1000-D1 controller provides analog intensity control of LED lighting for machine vision applications. The SD-1000-D1 provides single channel output, with current output selection.

### Front Panel



The front panel consists of VR KNOB (Control LED Intensity range from 1~10) and Dip Switch 4 Way (Current Selector)

### Specification of SD-1000-D1

Power	Controller Supply Voltage	12/24V DC
	Lighting Output	12/24V DC
	Input Current	Min 2.2A
	Output current	Max 2.0A / channel
Function	No. of Channel	1
	Intensity Control	VR Adjustable
	Intensity Range	1 ~ 10 steps
	Current Output Selection	200mA – 2000mA

### Specification of Adaptor

#### 24VDC

Input Power Supply	Input Power rating	100V - 240V AC, 50/60 Hz, 2.0A
	Output Power rating	24VDC, 2.5A

#### 12VDC

Input Power Supply	Input Power rating	100V - 240V AC, 50/60 Hz, 2.0A
	Output Power rating	12VDC, 3.33A

#### Remark:

- The Intensity of light is affected by the length of the lighting cable.

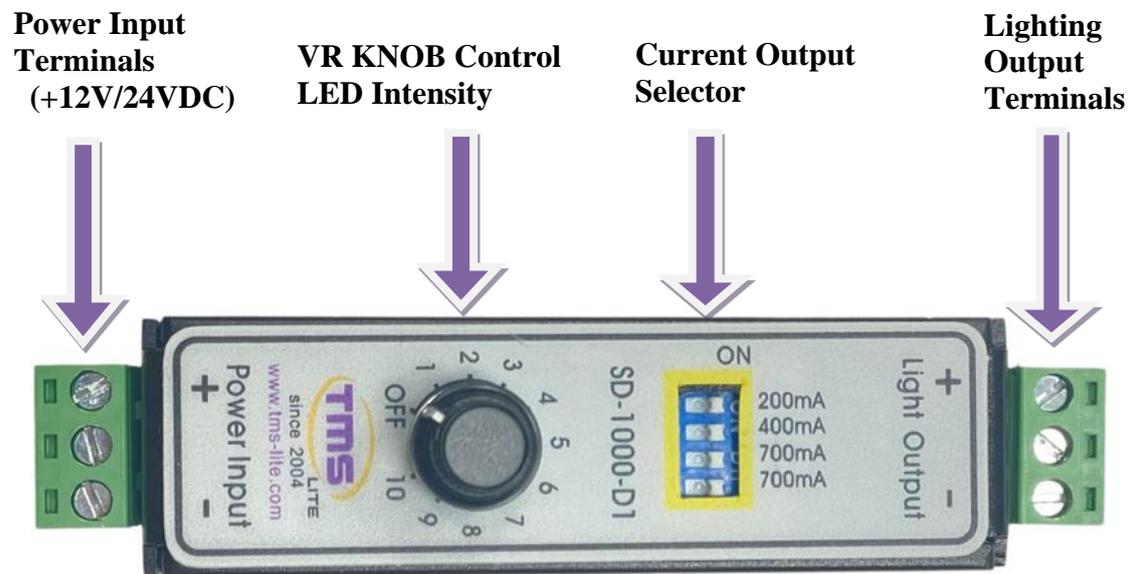
## Configuration

### Connections

For SD-1000-D1 to operate properly, the unit terminals must be connected correctly. The terminals voltage polarity must be followed accordingly to prevent damage to the unit.

- **Power Input Terminals**  
These terminals are to be connected to a 12V / 24V DC power supply with minimum 2200mA capability.
- **Light Output Terminals**  
These terminals are to be connected to 12V / 24V-Lightings for a 12V / 24V DC power supply at Lightings Input Power Terminals.

### Panel Label:



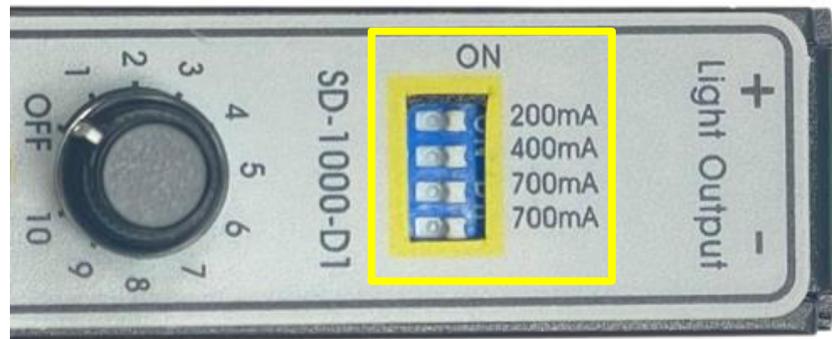
(TOP View)

## Current DIP Switch Settings

The DIP Switches sets the maximum output current to the Lighting Output for over current protection for each respective channel.

Factory default for each channel is 600mA.

**Caution: Make sure the selected maximum current output is suitable for lighting to prevent damage to both the lightings & Controlle**



Switch				Output Current (mA)
1 (200mA)	2 (400mA)	3 (700mA)	4 (700mA)	
OFF	OFF	OFF	OFF	INVALID
ON	OFF	OFF	OFF	200
OFF	ON	OFF	OFF	400
ON	ON	OFF	OFF	600
OFF	OFF	ON	OFF	700
OFF	ON	ON	OFF	1100
ON	ON	ON	OFF	1300
OFF	OFF	ON	ON	1400
ON	OFF	ON	ON	1600
OFF	ON	ON	ON	1800
ON	ON	ON	ON	2000

*DIP Switch Settings for Maximum Lighting Output Current*

## Power ON

The default current setting for the controller is 600mA. If other current settings are desired, please make sure LED Lighting Current can support before power on the unit.

Connect the lighting connectors to the lighting connection terminals.

Connect a power +12/24 VDC to terminal block with label **POWER INPUT ( + )** and **( - )** at casing. The POWER LED at Board will be ON when user have switch "ON" the VR by turning.

## Operating Modes

- Constant (Analog VR intensity control)

### Constant

The unit has constant mode intensity from 1 to 10 (Analog).

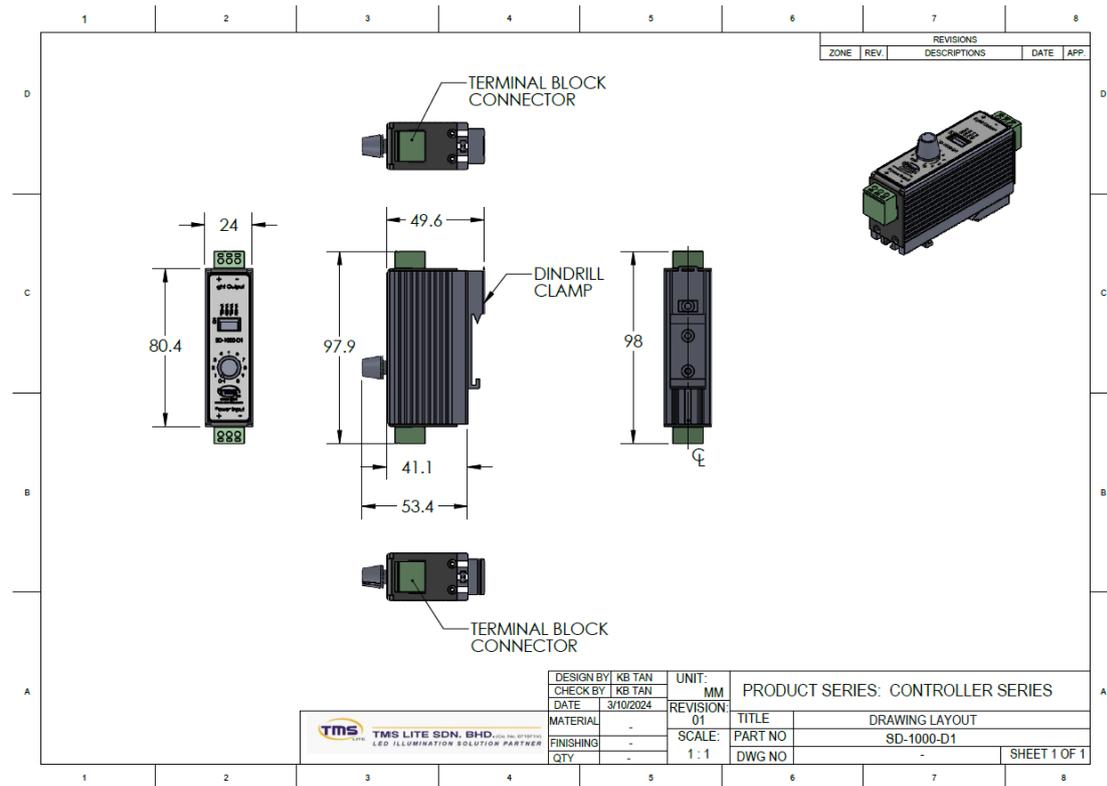
Independent VR controls the lightings intensity of each channel.

The Lightings intensity is set by manually adjust the position of VR Knob (label 1-10) on the casing.

When VR Knob position at '1', it sets the lightings intensity at minimum.

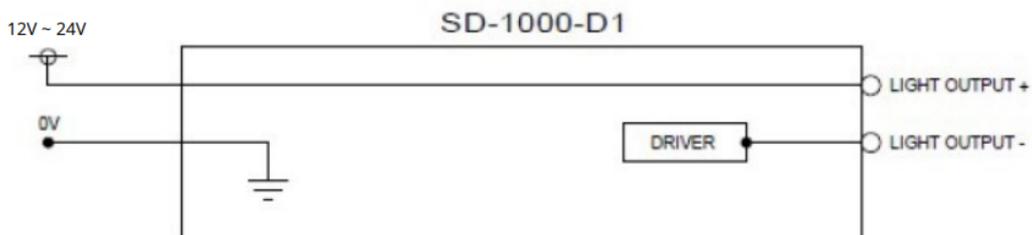
When VR Knob position at '10', it sets the lightings intensity at maximum.

## Dimension Layout



Unit = mm

## Schematic SD-1000-D1



## Accessories

Additional accessories that can be used with SD-1000-D1 controllers.

Selection Power Supply

### 24V

- 24V Adaptor power supply
- Choose one Power Cord UK, US or EU

MODEL	SPECIFICATIONS
 <p data-bbox="244 1715 799 1774"><b>24V ADAPTOR POWER SUPPLY WITH POWER CORD</b></p>	<ul style="list-style-type: none"> <li>• SD-1000-D1-PS2.5A-UK (CONTROLLER WITH 24V ADAPTOR AND UK POWER CORD)</li> <li>• SD-1000-D1-PS2.5A-US (CONTROLLER WITH 24V ADAPTOR AND US POWER CORD)</li> <li>• SD-1000-D1-PS2.5A-EU (CONTROLLER WITH 24V ADAPTOR AND EU POWER CORD)</li> </ul>

**12V**

- 12V Adaptor power supply
- Choose one Power Cord UK, US or EU

MODEL	SPECIFICATIONS
 <p><b>12V ADAPTOR POWER SUPPLY WITH POWER CORD</b></p>	<ul style="list-style-type: none"> <li>• SD-1000-D1-PS12V-UK (CONTROLLER WITH 12V ADAPTOR AND UK POWER CORD)</li> <li>• SD-1000-D1-PS12V-US (CONTROLLER WITH 12V ADAPTOR AND US POWER CORD)</li> <li>• SD-1000-D1-PS12V-EU (CONTROLLER WITH 12V ADAPTOR AND EU POWER CORD)</li> </ul>

## Power Cord Information

The cable length is 1.8 Meter length of power cord.

### 240VAC Power Cord (UK)



### 220VAC Power Cord (EU)



### 110VAC Power Cord (US)





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