# CXA-0420

**Dimming/Connector Type**

## ■ Features

- ●2-output
- ●Applicable panel size*: 5 to 8 inches
- ●With brightness control function (Pulse Wide Modulation mode).
- ●With shut down function.
- ●With a sensing function for running out of lamp (alarm output).
- ●In the high-voltage generator(a terminal and a pattern), an anti-dust measure by silicone application is taken.

(Notice) Applicable panel size becomes a standard.

## ■ Applications

F  A    MED   MEASURE

## CXA-0420 Specifications (Please refer to each specification before use)

### Electrical Characteristics

| Item | Unit | Symbol | Specification | | | Condition | | | | | | Remark |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | min | typ | max | Vin(V) | Vrmt(V) | Vbr(V) | Rbr(kΩ) | Ta(℃) | RL(kΩ) | |
| Output Current | mArms | Iout (Maximum dimmer) | 4.5 | 5.0 | 5.5 | 4.5 to 13.2 | 5 | 2.5 | - | -10 to +75 | 70 | Voltage dimmer (*1) |
| | | | 4.5 | 5.0 | 5.5 | 4.5 to 13.2 | 5 | - | 10 | -10 to +75 | 70 | Volume dimmer (*1) |
| | | Iout (Minimum dimmer) | 2.0 | 2.5 | 3.0 | 4.5 to 13.2 | 5 | 0 | - | -10 to +75 | 70 | Voltage dimmer (*1) |
| | | | 2.0 | 2.5 | 3.0 | 4.5 to 13.2 | 5 | - | 0 | -10 to +75 | 70 | Volume dimmer (*1) |
| Input Current | A | Iin1 | - | 1.05 | 1.35 | 5±0.05 | 5 | 2.5 | 10 | -10 to +75 | 70 | |
| | A | Iin2 | - | 0.50 | 0.63 | 12±0.05 | 5 | 2.5 | 10 | -10 to +75 | 70 | Remote ON |
| | mA | Iin3 | - | 0.5 | 1.0 | 4.5 to 13.2 | 0 | 2.5 | 10 | -10 to +75 | 70 | Remote OFF |
| Frequency | kHz | Freq1 | 50 | 55 | 60 | 4.5 to 13.2 | 5 | 2.5 | 10 | -10 to +75 | 70 | |
| | Hz | Freq2 (Duty frequency) | 240 | 255 | 269 | 4.5 to 13.2 | 5 | 0 | | -10 to +75 | 70 | |
| Open Circuit Voltage | Vrms | Vopen | 1100 | 1300 | 1600 | 4.5min. | 5 | 2.5 | 10 | -10 to +75 | ∞ | Open load |
| Alarm Signal | V | Vst | 4.5 | 5.0 | 5.5 | 4.5 to 13.2 | 5 | 2.5 | 10 | -10 to +75 | ∞ | In case of lamp anomaly (*2) |
| | | | - | 0 | 0.5 | 4.5 to 13.2 | 5 | 2.5 | 10 | -10 to +75 | 70 | On a normal operation (*2) |

(*1) Please refer to the connection diagram for details of a dimming method.
(*2) Please refer to the connection diagram for details of alarm output.
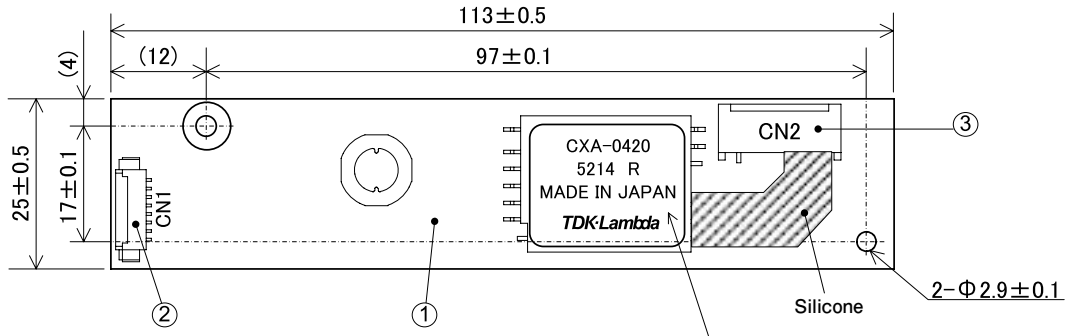
### Other Specifications

| | | |
|---|---|---|
| Dimming Function | ℃ | Yes |
| Operating Temperature | ℃ | -10 to +75 |
| Storage Temperature | ℃ | -20 to +85 |
| Operating Humidity Ratio | RH% | 95Max |
| Safety Standard | | — |
| Weight | g | 20 |
| Dimensions(WxDxH) | mm | 113x25x8.5 (*3) |
| Fused Input | | Yes |
| Remote ON／OFF | | Yes |
| Alarm Signal Function | | Yes |
| Shutdown Function | | Yes |
| Silicone Coating on High Voltage Area | | Yes |

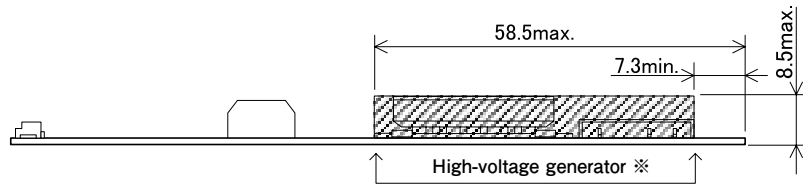(*3) These dimensions are indicated the maximum only H. Others are typical values.

## ■Conformity to RoHs Directive

This means that, in conformity with EU Directive 2002/95/EC, lead, cadmium, mercury, hexavalent chromium, and specific bromine-based flame retardants, PBB and PBDE, have not been used, except for exempted applications.
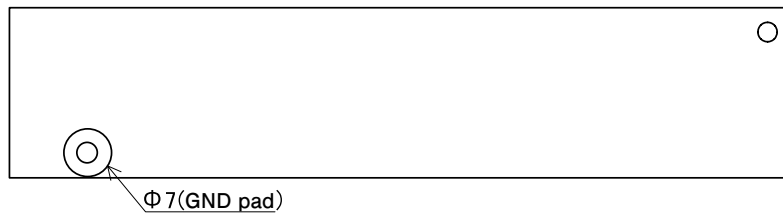
# Outline Drawing

113±0.5
97±0.1
(12)
(4)
25±0.5
17±0.1

CN1

CXA-0420
5214 R
MADE IN JAPAN
*TDK·Lambda*

CN2

③

②

①

Silicone

2－Φ2.9±0.1

Example of label marking
Product name, Lot No., Country of origin, TDK-Lambda logotype

58.5max.
7.3min.
8.5max.

High-voltage generator ※

※From high-voltage generator, please secure space distance more than 3mm in top and bottom right and left.

Φ7(GND pad)

unit:mm

## Connector

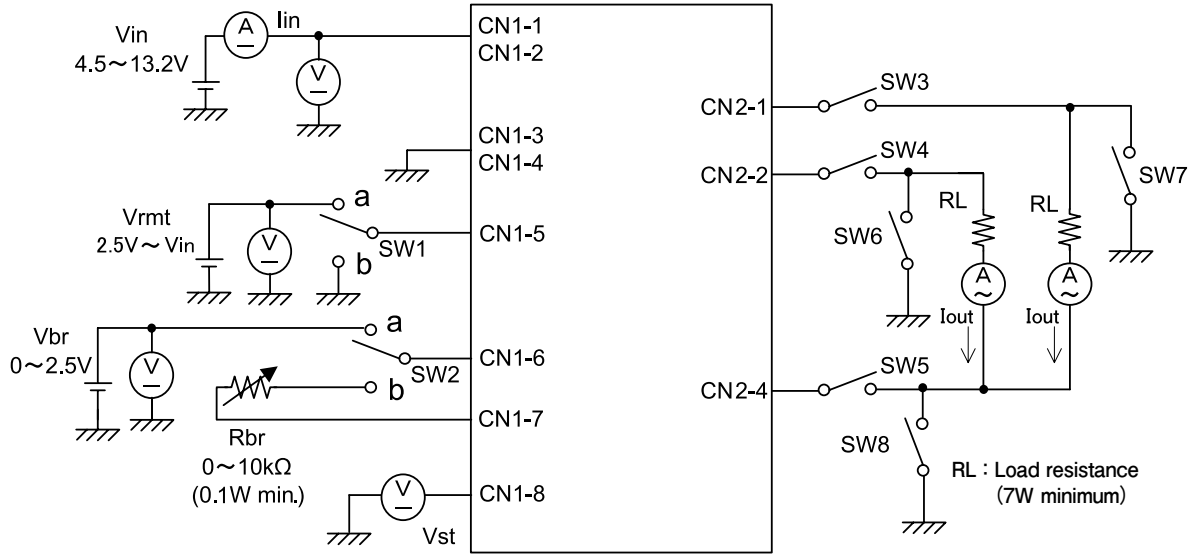| Connector number | Part number | Model/Material | Quantity | Remarks | Recommended applicable connector |
|---|---|---|---|---|---|
| ① | Printed circuit board PCB | Composite (CEM-3) | 1 | UL94V-0  t=1.0 | — |
| ② | Input connector  CN1 | 53261-0871 | 1 | Molex Inc. | 51021-0800 |
| ③ | Output connector CN2 | SM03(7-D1)B-BHS-1-TB (LF)(SN) | 1 | JST Mfg. Co., Ltd. | BHR-04VS-1 |

## Terminal Numbers And Functions

### Input side CN1

| Terminal number | Symbol | Rated voltagex | Remarks |
|---|---|---|---|
| CN1-1 | Vin | 4.5 to 13.2V | Power input |
| CN1-2 | | | |
| CN1-3 | GND | 0V | Ground |
| CN1-4 | | | |
| CN1-5 | Vrmt | 0V/2.5V to Vin | Remote terminal<br>0 to 0.8V : OFF<br>2.0V to Vin : ON<br>Open : ON |
| CN1-6 | Rbr1/Vbr | 0 to 2.5V/0 to 10kΩ | Dimmer terminal 1<br>(Input voltage/Resistance connection) |
| CN1-7 | Rbr2 | 0 to 10kΩ | Dimmer terminal 2<br>(Resistance connection) |
| CN1-8 | Vst(Output) | 0V/5V | Alarm output  Lump open : 5V |

### Output side CN2

| Terminal number | Symbol | Rated voltage | Remarks |
|---|---|---|---|
| CN2-1 | $V_{HIGH}1$ | 360Vrms | Output 1 |
| CN2-2 | $V_{HIGH}2$ | 360Vrms | Output 2 |
| CN2-3 | N.C. | — | N.C. |
| CN2-4 | $V_{LOW}$ | (2V) | Output 1, 2 return |

# Connections



Operate as follows by switching SW1.

| SW1 | Unit operation |
|-----|----------------|
| a | Operation |
| b | Does not operate |
| Open | Operation |

Operate as follows by switching SW2.

| SW2 | Unit operation |
|-----|----------------|
| a | Voltage dimmer<br>Vbr=0 to 2.5V<br>(2.5V: Maximum brightness) |
| b | Volume dimmer<br>VR=0 to 10kΩ<br>(10kΩ: Maximum brightness) |

Operate by a switch of SW3 to 8 as follows.

| SW3 to 5 | Alarm output |
|----------|--------------|
| Open | Operation (5V output) |
| Close | Does not operate (0V output) |

| SW6 to 8 | Alarm output |
|----------|--------------|
| Open | Does not operate (0V output) |
| Close | Operation (5V output) |

· All specifications are subject to change without notice.