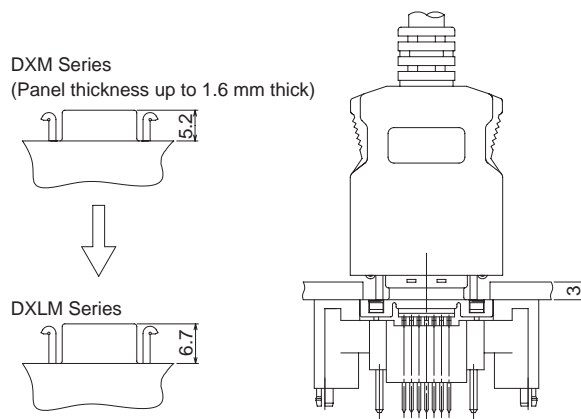


# D-configuration Connectors for Digital Broadcasting Equipment

## DXLM Series



### Accepts panel thickness up to 3 mm



### ■ Features

#### 1. Increased range of the mounting panel thickness

Extension of the mating and locking area by 1.5 mm has allowed the DXLM Series to be mounted on panels up to 3mm thick.

#### 2. Effective protection against electrostatic discharge

Unique Hirose Electric design makes reliable ground connection in sequence, with metal shell first, then the board circuit.

#### 3. Temporary board holding feature

Deflecting force of the side protrusion of the insulator's posts against the walls of holes provides superior retention to the board, preventing leaning forward during handling.

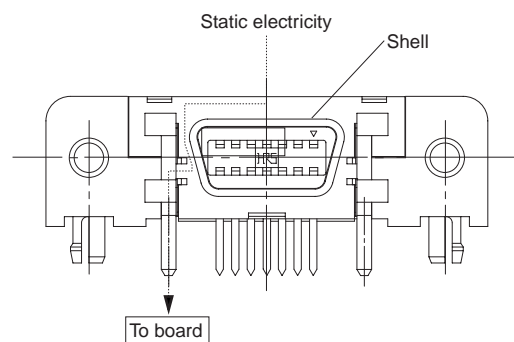
#### 4. Superior stability and retention to the board

Solid metal grounding posts are soldered to the board. This creates extremely strong retention to the board, allowing the assembly to retain reliable connections, even when large forces are applied when miss-mating or pulling.

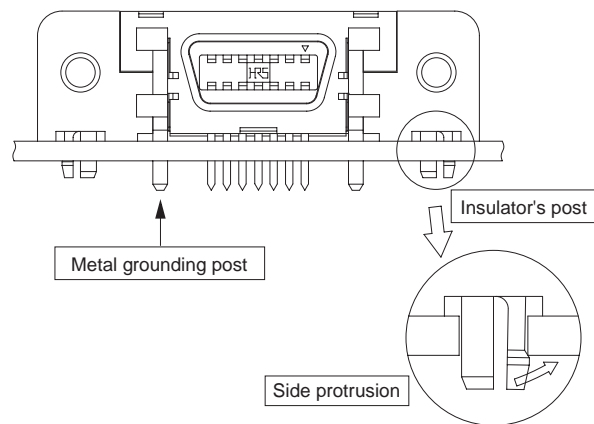
#### 5. RC-5237, EIAJ Standard

Conforms to the requirements for D-configuration connector used in connections for digital image broadcast.

### Effective protection against electrostatic discharge



### Superior stability and retention to the board



### ■ Applications

TV, STB, DVD, LCD TV and other equipment supporting digital broadcasts

## Product Specifications

|        |                |          |                             |                |
|--------|----------------|----------|-----------------------------|----------------|
| Rating | Current rating | 1 A DC   | Operating temperature range | -25°C to +70°C |
|        | Voltage rating | 250 V AC |                             |                |

| Item                             | Specification  | Conditions  |
|----------------------------------|--|---|
| 1. Contact resistance            | 80 m ohms max.   | 100mA DC  |
| 2. Insulation resistance         | 500 M ohms min.  | 500 V DC  |
| 3. Withstanding voltage          | No flashover or insulation breakdown   | 500 V AC / one minute   |
| 4. Mating/un-mating forces       | 30N max. (mating)<br>4.2N min. (un-mating)   | With corresponding connector assembly.  |
| 5. Durability (mating/un-mating) | Contact resistance: 25 m ohms max. variation from initial value<br>No damage, cracks, or parts dislocation | 500 cycles  |
| 6. Vibration                     | No electrical discontinuity of 1 ms or more<br>No damage, cracks, or parts dislocation                     | Frequency: 10 to 55 Hz, single amplitude of 0.75 mm,<br>2 hours / 3 axis  |
| 7. Shock                         |  | Acceleration of 490 m/s <sup>2</sup> ; 6 ms duration, sine half-wave wave form, 3 cycles in each of the 3 axis                            |
| 8. Humidity (Steady state)       | Contact resistance: 25 m ohms max. variation from initial value<br>Insulation resistance: 100 M ohms min.  | 96 hours at 40°C, humidity of 90% to 95%  |
| 9. Temperature cycle             | Contact resistance: 25 m ohms max. variation from initial value<br>Insulation resistance: 100 M ohms min.  | Temperature: -25 °C --> +5 °C to +35 °C --> +70 °C --> +5 °C to +35 °C<br>Duration: 30 --> 2 to 3 --> 30 --> 2 to 3 (Minutes)<br>5 cycles |
| 10. Salt Spray                   | Contact resistance: 25 m ohms max. variation from initial value  | 5% salt water solution for 48 hours   |

## Material

| Part                   | Material        | Finish                 | Remarks |
|------------------------|-----------------|------------------------|---------|
| Contact: Receptacle    | Brass           | Selective gold plating | —       |
| Contact: Plug          | Phosphor bronze | Selective gold plating | —       |
| Insulator              | PBT             | Color: Black           | UL94V-0 |
| Shell                  | Stainless steel | —                      | —       |
| Cover                  | Non-Halogen     | Color: Gray            | —       |
| Cable outer insulation | Non-Halogen     | Color: Gray            | —       |

## Ordering Information

### ● Receptacles

**DX** **10** **LM** **1** — **14** **S** **E (50)**

① ② ① ③ ④ ⑤ ⑥ ⑩

### ● Plugs

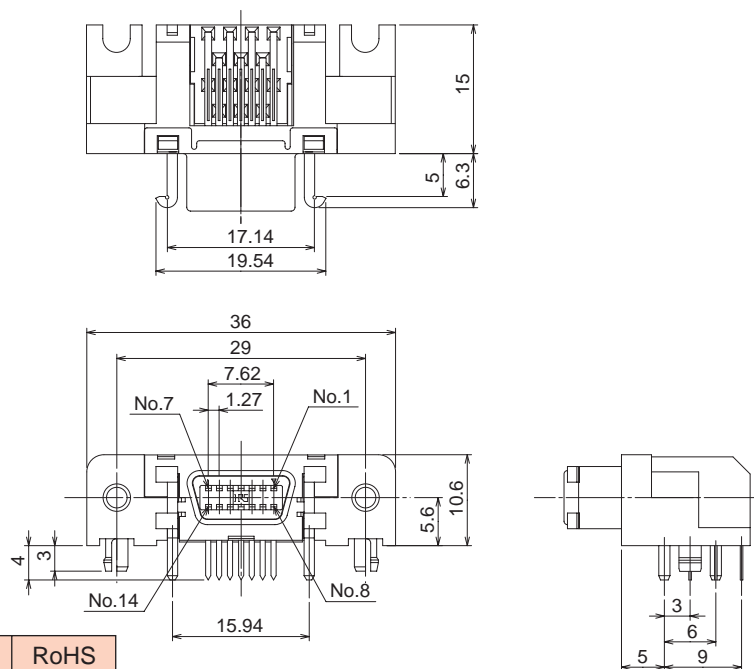
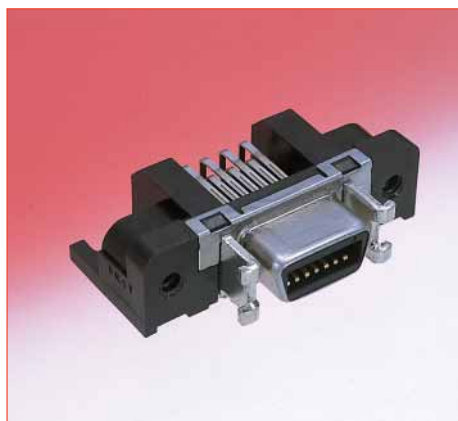
**DX** **40** **LM** — **14** **PP** — **150** **CV (50)**

① ② ① ④ ⑦ ⑧ ⑨ ⑩

|  |  |
|--|--|
| ① Series name: DXLM  | ⑥ Board mounting type E: Temporary insulator's post  |
| ② Termination type 10: PCB Right-angle through hole type<br>20: PCB Straight through hole type<br>40: Soldering type | ⑦ Cable Harness type<br>PP: D-configuration connector at both ends<br>P: D-configuration connector on one end/single audio connectors on other end |
| ③ Form type Blank: Standard item<br>1: Miniature type<br>2: Miniature panel single screw panel attachment            | ⑧ Overall length 150: 150 cm<br>300: 300 cm  |
| ④ Number of Positions: 14  | ⑨ Cover type CV: Standard  |
| ⑤ Configuration of mating side S: Receptacle   | ⑩ Plating (50) : Gold plating  |

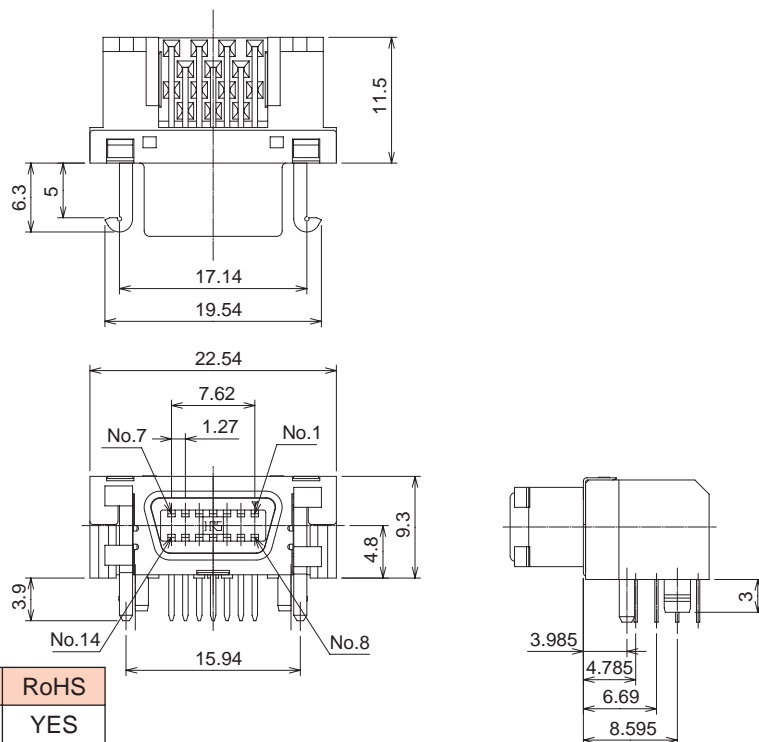
## Receptacles

### ● PCB Right-angle through hole type



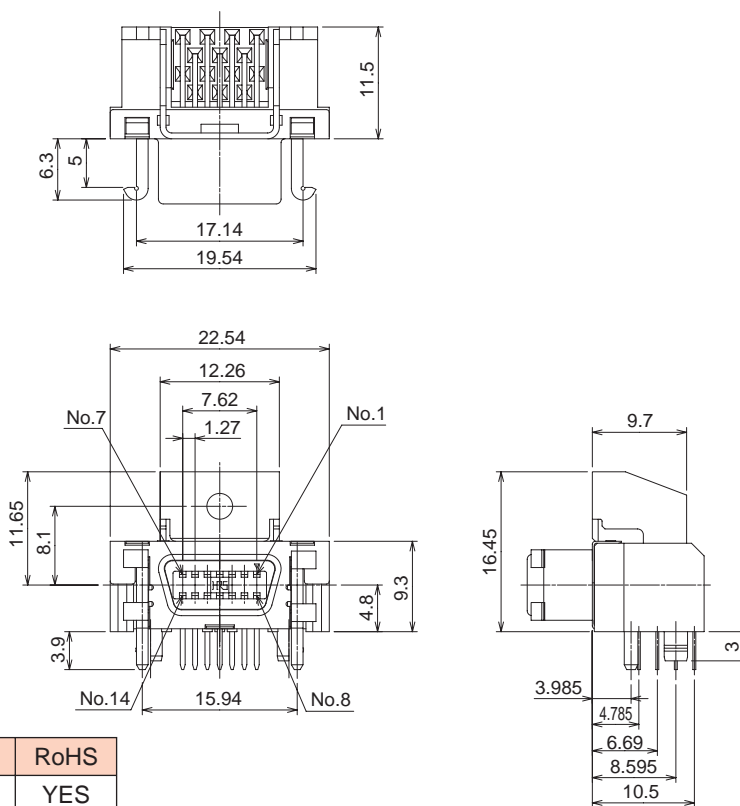
| Part Number     | CL No.        | RoHS |
|-----------------|---------------|------|
| DX10LM-14SE(50) | 230-5256-0-50 | YES  |

### ● Miniature PCB Right-angle through hole type



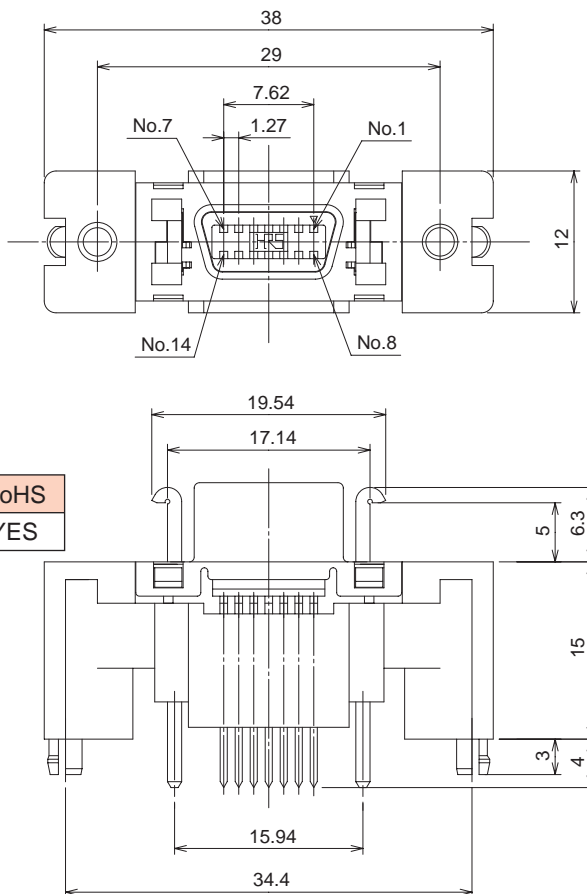
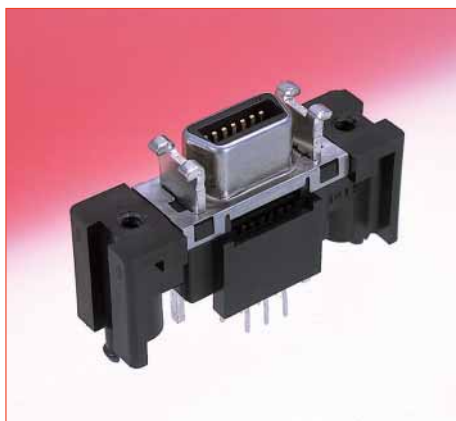
| Part Number      | CL No.        | RoHS |
|------------------|---------------|------|
| DX10LM1-14SE(50) | 230-5258-5-50 | YES  |

● Miniature PCB Right-angle through hole type (Single panel screw)



| Part Number      | CL No.        | RoHS |
|------------------|---------------|------|
| DX10LM2-14SE(50) | 230-5262-2-50 | YES  |

● PCB Straight through hole type (Double panel screws)



| Part Number     | CL No.        | RoHS |
|-----------------|---------------|------|
| DX20LM-14SE(50) | 230-5257-2-50 | YES  |

## ■ Plug Connectors (Cable assemblies)

### ● D-configuration connector to D-configuration connector

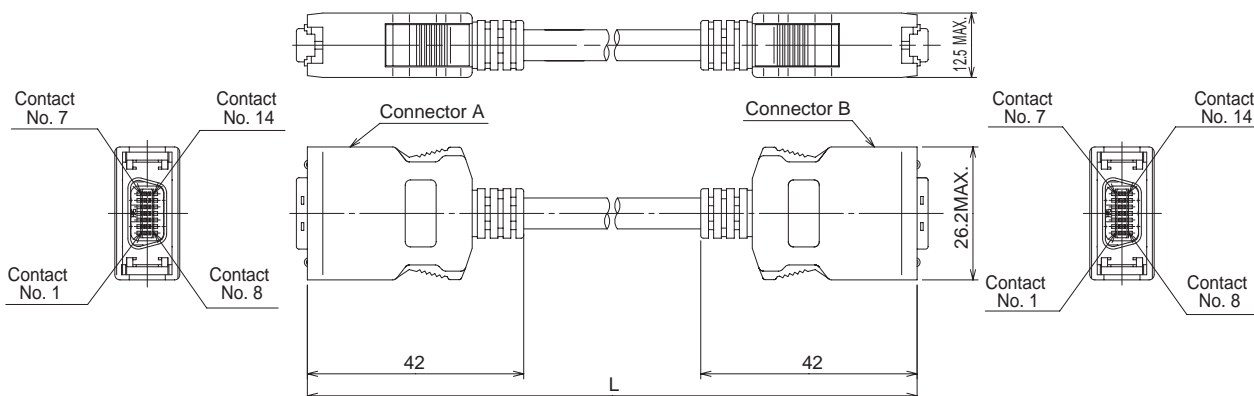


Wiring Table

| Connector A Contact No. | Connector B Contact No. | Pin assignment   |
|-------------------------|-------------------------|------------------|
| 1                       | 1                       | Y                |
| 2                       | 2                       | Y-GND            |
| 3                       | 3                       | Pb               |
| 4                       | 4                       | Pb-GND           |
| 5                       | 5                       | Pr               |
| 6                       | 6                       | Pr-GND           |
| 7                       | 7                       | Auxiliary line 1 |
| 8                       | 8                       | Line 1           |
| 9                       | 9                       | Line 2           |
| 10                      | 10                      | Auxiliary line 2 |
| 11                      | 11                      | Line 3           |
| 12                      | 12                      | Switch GND       |
| 13                      | 13                      | Auxiliary line 3 |
| 14                      | 14                      | Switch           |

Unit: cm

| Part Number           | CL No.        | L   | RoHS |
|-----------------------|---------------|-----|------|
| DX40LM-14PP-150CV(50) | 230-5260-7-50 | 150 | YES  |
| DX40LM-14PP-300CV(50) | 230-5268-9-50 | 300 |      |

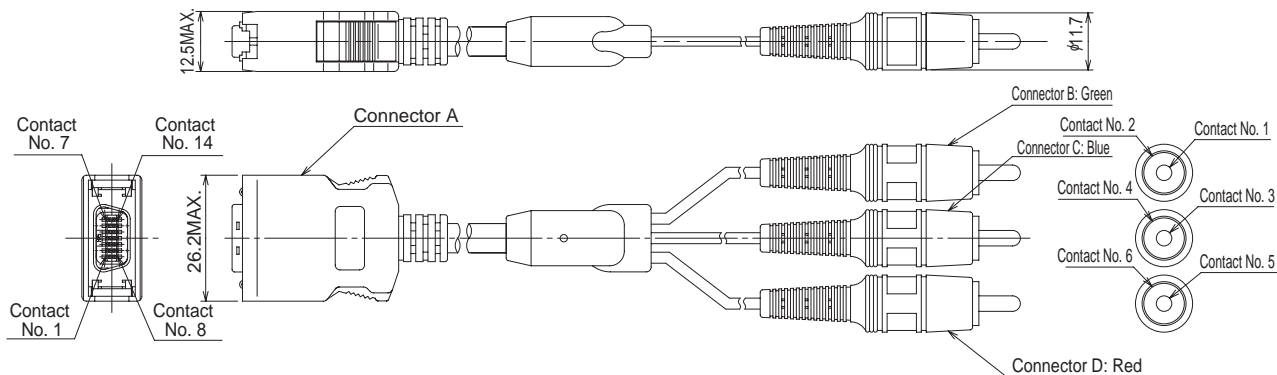


Wiring Table

| Connector A Contact No. | Connector B: Green Contact No. | Connector C: Blue Contact No. | Connector D: Red Contact No. | Pin assignment |
|-------------------------|--------------------------------|-------------------------------|------------------------------|----------------|
| 1                       | 1                              | —                             | —                            | Y              |
| 2                       | 2                              | —                             | —                            | Y-GND          |
| 3                       | —                              | 3                             | —                            | Pb             |
| 4                       | —                              | 4                             | —                            | Pb-GND         |
| 5                       | —                              | —                             | 5                            | Pr             |
| 6                       | —                              | —                             | 6                            | Pr-GND         |
| 7                       | —                              | —                             | —                            | —              |
| 8                       | —                              | —                             | —                            | —              |
| 9                       | —                              | —                             | —                            | —              |
| 10                      | —                              | —                             | —                            | —              |
| 11                      | —                              | —                             | —                            | —              |
| 12                      | —                              | —                             | —                            | —              |
| 13                      | —                              | —                             | —                            | —              |
| 14                      | —                              | —                             | —                            | —              |

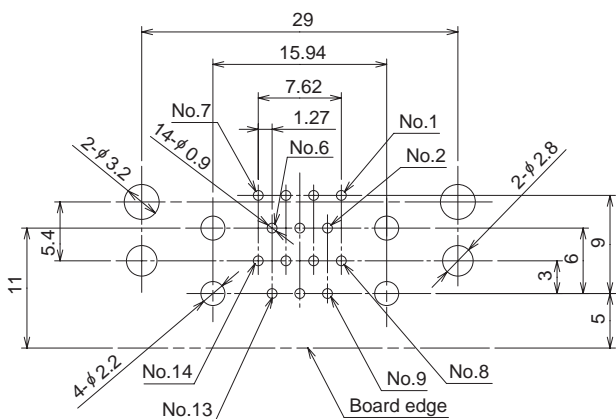
Unit: cm

| Part Number          | CL No.        | L   | RoHS |
|----------------------|---------------|-----|------|
| DX40LM-14P-150CV(50) | 230-5261-0-50 | 150 | YES  |
| DX40LM-14P-300CV(50) | 230-5269-1-50 | 300 |      |

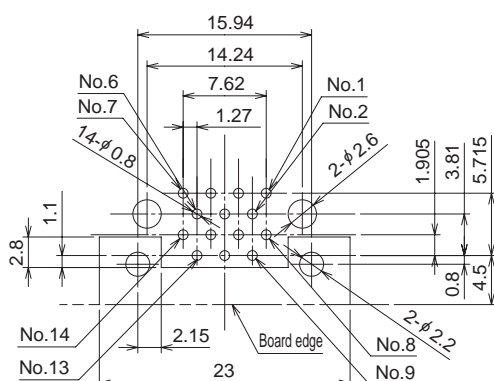


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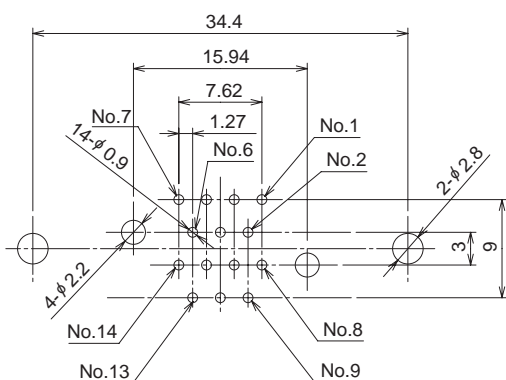
### ◆ Board Mounting Pattern



DX10LM-14SE(50)

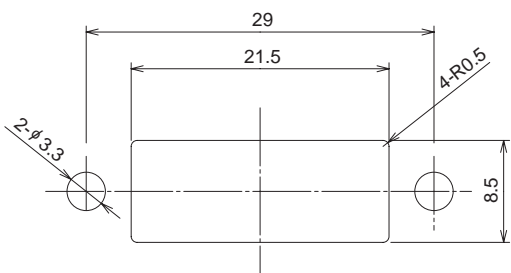


DX10LM1-14SE(50)  
DX10LM2-14SE(50)

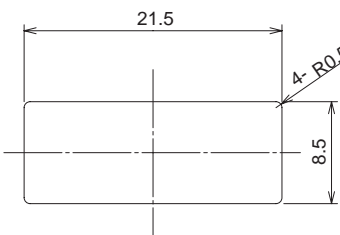


DX20LM-14SE(50)

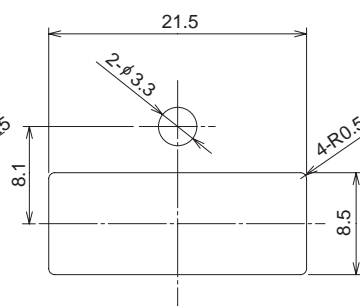
### ◆ Panel Cutout (Panel thickness 3 mm Max.)



DX10LM-14SE(50)  
DX20LM-14SE(50)



DX10LM1-14SE(50)



DX10LM2-14SE(50)

Note: Use screw M3 x 10 ( class 1 or 2).  
 Panel screw fastening torque:  
 For assemblies DX10LM-14SE(50), DX20LM-14SE(50) and DX10LM1-14SE: 0.5 to 0.7 N·m.  
 For assembly DX10LM2-14SE(50): 0.6 to 0.8 N·m.

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