OMRON DVI Connectors

XM4M

Transfer High-resolution Video Signals with OMRON's DVI-compliant Digital Visual Interface Connectors.

- Used for both digital video (TMDS) and conventional analog (RGB) signals.
- OMRON's DVI Connector is an analog interface capable of up to 2.5-GHz bandwidths.
- Transfers broadband data up to 9.9 Gbps (dual link) to ensure full compatibility with advanced broadband applications.
- Shielded against EMI for high-speed data transfer.
- Digital and digital/analog models available.

RoHS Compliant

■ Terminology

• DVI

Abbreviation for Digital Visual Interface. One of the specifications for connecting a PC and display. Using the DVI, you can directly send digital signals from a PC to the display.

• TMDS

Abbreviation for Transition Minimized Differential Signaling. A digital transmission method of the display video signal used for the DVI.

• RGB

Three video signals of R (Red), G (Green) and B (Blue).

■ Ordering Information



• bps

Abbreviation of Bits Per Second. Unit of data speed expressing the number of bits that can be transmitted in one second. 1 bps means 1 bit of data can be transmitted per second.

• EMI

Abbreviation of ElectroMagnetic Interference (noise).

Туре	Digital		Digital/Analog	
Accessories	No anchors	Inch screws, length = 5.8 mm	No anchors	Inch screws, length = 5.8 mm
Model	XM4M-2432-5012	XM4M-2432-1312	XM4M-2932-5012	XM4M-2932-1312
Appearance				

Ratings and Characteristics

Туре	Digital	Digital/Analog	
Item			
Rated current	1.5 A		
Rated voltage	40 VAC		
Contact resis- tance	30 m Ω max. (at 20 mVDC, 100 mA max.)		
Insulation resis- tance	1,000 MΩ min. (at 500 VDC)		
Dielectric strength	500 VDC for 1 min (leakage current: 0.5 mA max.)		
Insertion durability	100 times		
Ambient operating temperature	 20 to 85°C (with no condensation or icing) 		

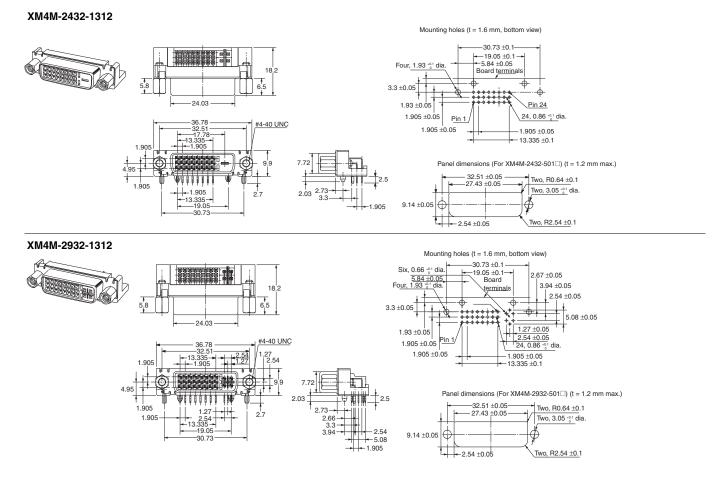
■ Materials and Finish

Housing		PBT (UL94 V-0)/natural	
Cover		PBT (UL94 V-0)/natural	
Con- tact	Mating end	Copper alloy/nickel base, gold plating	
	Termi- nal	Copper alloy/nickel base, tin plating	
Shell		Steel/nickel plated	
Anchors		Steel/nickel plated	
Grounding Fix- ture		Copper alloy/tin plated	

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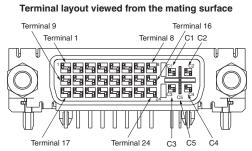
Dimensions

(unit: mm)



Terminal layout

Digital/Analog sharing type terminal Arrangement



Note: The digital type does not have C1 to C5.

Precautions

Precautions for Correct Use

Automated Soldering

Soldering

2

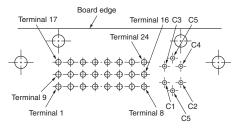
- Automated Soldering Conditions (Jet Flow)

 - Soldering temperature: 250 ±5°C
 Continuous soldering time: Within 5±1 s

Tightening torque for anchors

To install an anchor on the connector body, tighten it with 0.49 N·m. Also, use a proper size tool to do this work.

Board terminal arrangement (BOTTOM VIEW)



About panel mount

Use anchor 3 (XM4Z-002 series) to lock connectors without anchors. (For anchor 3, refer to XM3-L/XM-2L/XM4K/XM4L.)

Mating

Do not connect the Connectors in the wrong direction, otherwise it may be damaged.

Application examples provided in this document are for reference only. In actual applications, confirm equipment functions and safety before using the product.
 Consult your OMRON representative before using the product under conditions which are not described in the manual or applying the product to nuclear control systems, railroad systems, aviation systems, vehicles, combustion systems, medical equipment, answernet machines, safety equipment, and other systems or equipment that may have a serious influence on lives and property if used improperly. Make sure that the ratings and performance characteristics of the product provide a margin of safety for the system or equipment, and be sure to provide the system or equipment with double safety mechanisms.

Note: Do not use this document to operate the Unit.

OMRON Corporation Electronic and Mechanical Components Company

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