

Digital I/O Slave Units with MIL Connector (Vertical type)

# CRT1-VID32ML(-1)/VOD32ML(-1)/VMD32ML(-1)

## Aggregation of multi-I/O points!

## A compact and little wiring slave with 32 points and MIL connector

MIL connectors expand I/O interface options to include collective connection of multiple I/O points to boards as well as direct connection to actuators via branching cables.

- Super compact slave with 32 points and MIL connector (35 mm wide x 60 mm deep x 80 mm high)
- Aggregation of multi I/O points enables connection to actuators and boards.
- Connector interface between the communications unit and the I/O units greatly reduces wiring man-hour.
- DIN tracks and metal fixtures allow flexible installation.
- Various maintenance data such as operation status and deterioration of equipment can be collected to improve productivity.



## Ordering Information

Name	Specifications			Model
MIL Connector *	Inputs	32 inputs	NPN	CRT1-VID32ML
			PNP	CRT1-VID32ML-1
	Outputs	32 outputs	NPN	CRT1-VOD32ML
			PNP	CRT1-VOD32ML-1
	Inputs/ Outputs	16 inputs/ 16 outputs	NPN	CRT1-VMD32ML
			PNP	CRT1-VMD32ML-1
Mounting Bracket	Unit with MIL Connectors CRT1-V□D32ML(-1)			SRT1-ATT02

\* These Units are also available with a DCN-TB4 Terminal Conversion Adapter included in the package. Add "(-B)" to the end of the model number to receive the Adapter as well.

Slave External I/O Connections in the appendix for applicable connectors.

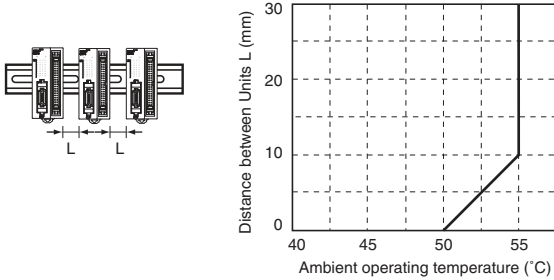
## Performance Specifications

For Basic Performance Specifications of Slave Units, refer to page 32.

**Input Section Specifications**

Item	Specification	
Model	CRT1-VID32ML	CRT1-VID32ML-1
I/O capacity	32 inputs	
Internal I/O common	NPN	PNP
ON voltage	17 VDC min. (between each input terminal and the V terminal)	17 VDC min. (between each input terminal and the G terminal)
OFF voltage	5 VDC max. (between each input terminal and the V terminal)	5 VDC max. (between each input terminal and the G terminal)
OFF current	1.0 mA max.	
Input current	At 24 VDC: 6.0 mA max./input At 17 VDC: 3.0 mA min./input	
ON delay	1.5 ms max.	
OFF delay	1.5 ms max.	
Number of circuits per common	32 inputs/common	
Number of simultaneous inputs	32 max. *	
Isolation method	Photocoupler	
Input indicator	LED (yellow)	
Installation	DIN Track or Mounting Bracket	
Power supply type	Multi-power supply	
Communications power supply current consumption	40 mA max. for 24-VDC power supply voltage 60 mA max. for 14-VDC power supply voltage	
I/O power supply current consumption	2 mA max. for 24-VDC power supply voltage	
Weight	120 g max.	

\* When Units Are Mounted Facing Upwards:  
If 16 points may be turned ON simultaneously, the distance between the Units must be restricted depending on the ambient operating temperature, as shown in the following graph. For example, when the ambient operating temperature is 55°C, a space of at least 10 mm is required between Units.



**Output Section Specifications**

Item	Specification	
Model	CRT1-VOD32ML	CRT1-VOD32ML-1
I/O capacity	32 outputs	
Internal I/O common	NPN	PNP
Rated output current	0.3 A/output, 4 A/common *	
Residual voltage	1.2 V max. (0.3 A DC, between each output terminal and the G terminal)	1.2 V max. (0.3 A DC, between each output terminal and the V terminal)
Leakage current	0.1 mA max.	
ON delay	0.5 ms max.	
OFF delay	1.5 ms max.	
Number of circuits per common	32 outputs/common	
Isolation method	Photocoupler	
Output indicators	LED (yellow)	
Installation	DIN Track or Mounting Bracket	
Power supply type	Multi-power supply	
Communications power supply current consumption	50 mA max. for 24-VDC power supply voltage 80 mA max. for 14-VDC power supply voltage	
I/O power supply current consumption	6.5 mA max. for 24-VDC power supply voltage	
Output handling for communications errors	Select either hold or clear from CX-Integrator.	
Weight	100 g max.	

\* Do not use a total external load current of more than 4 A, and do not use more than 1 A per V terminal or G terminal.

**Input and Output Section Specifications**

● Sixteen-point Input and Sixteen-point Output Units

Common Specifications

Item	Specification	
Model	CRT1-VMD32ML	CRT1-VMD32ML-1
Installation	DIN Track or Mounting Bracket	
Communications power supply current consumption	45 mA max. for 24-VDC power supply voltage 70 mA max. for 14-VDC power supply voltage	
Weight	110 g max.	

**Input Section Specifications**

Item	Specification	
Model	CRT1-VMD32ML	CRT1-VMD32ML-1
I/O capacity	16 inputs	
Internal I/O common	NPN	PNP
ON voltage	17 VDC min. (between each input terminal and the V terminal)	17 VDC min. (between each input terminal and the G terminal)
OFF voltage	5 VDC min. (between each input terminal and the V terminal)	5 VDC min. (between each input terminal and the G terminal)
OFF current	1.0 mA max.	
Input current	At 24 VDC: 6.0 mA max./input At 17 VDC: 3.0 mA min./input	
ON delay	1.5 ms max.	
OFF delay	1.5 ms max.	
Number of circuits per common	16 inputs/common	
Number of simultaneous inputs	16 max. *	
Isolation method	Photocoupler	
Input indicator	LED (yellow)	
Power supply type	Multi-power supply	
I/O power supply current consumption	2 mA max.	

\* When Slave Units are mounted facing upwards, and 16 inputs may all turn ON, leave the specified distance between Units according to the ambient temperature.

**Output Section Specifications**

Item	Specification	
Model	CRT1-VMD32ML	CRT1-VMD32ML-1
I/O capacity	16 outputs	
Internal I/O common	NPN	PNP
Rated output current	0.3 A/output, 2 A/common *	
Residual voltage	1.2 V max. (0.3 A DC, between each output terminal and the G terminal)	1.2 V max. (0.3 A DC, between each output terminal and the V terminal)
Leakage current	0.1 mA max.	
ON delay	0.5 ms max.	
OFF delay	1.5 ms max.	
Number of circuits per common	16 outputs/common	
Isolation method	Photocoupler	
Output indicators	LED (yellow)	
Power supply type	Multi-power supply	
I/O power supply current consumption	6.5 mA max. for 24-VDC power supply voltage	
Output handling for communications errors	Select either hold or clear from CX-Integrator.	

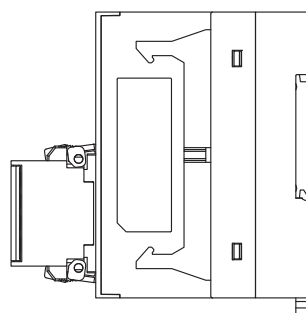
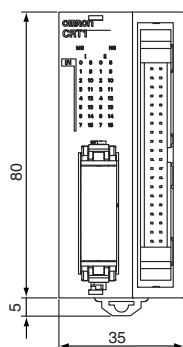
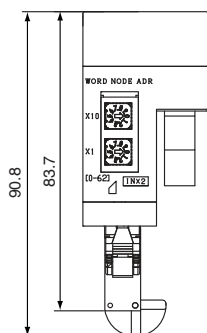
\* Do not use a total external load current of more than 2 A, and do not use more than 1 A per V terminal or G terminal.

**Dimensions**

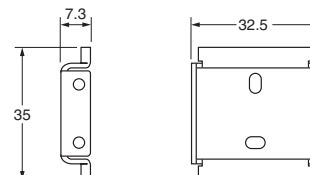
(Unit: mm)

- CRT1-VID32ML (-1)
- CRT1-VOD32ML (-1)
- CRT1-VMD32ML (-1)

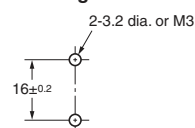
When a DCN4-TB4 Open Type Connectors Is Mounted



**● Mounting Bracket  
SRT2-ATT02**



**Mounting Holes**



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2011.12

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