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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.

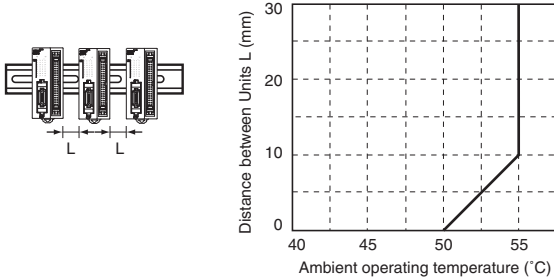
Performance Specifications

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. | |

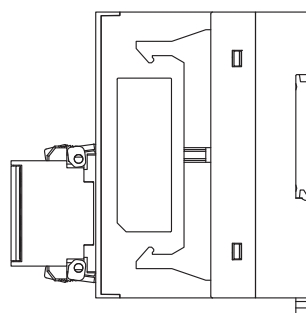
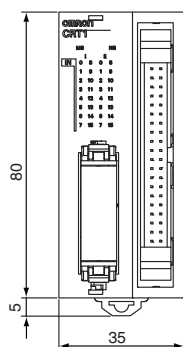
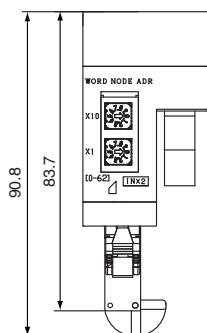
* Do not use a total external load current of more than 2 A, and do not use more than 1 A per V terminal or G terminal.

Dimensions

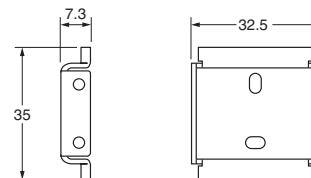
(Unit: mm)

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

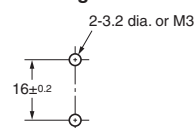
When a DCN4-TB4 Open Type Connectors Is Mounted



● Mounting Bracket SRT2-ATT02



Mounting Holes



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