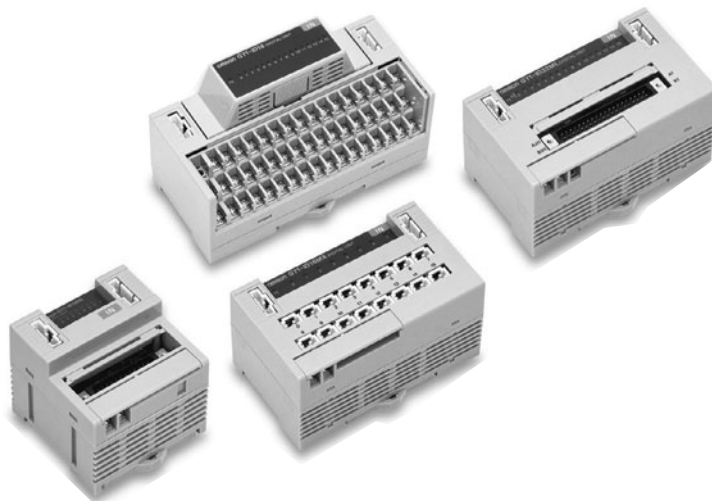


Digital I/O Units

GT1-□D16(-1)/□D16MX(-1)/□D16ML(-1)/□D32ML(-1)/□D16DS(-1)

Digital I/O Units Compatible with MULTIPLE I/O TERMINAL

- Terminal block, connector, and high-density connector models are available.
- The circuit block of the terminal block model can be mounted or dismantled for ease of maintenance without disconnecting the wires.
- DIN track mounting.



Ordering Information

| Unit | I/O classification | Internal I/O common | I/O points | I/O connections | Power supply voltage | I/O specification | Model | | | |
|------------------------------|------------------------------|---------------------|-------------------|----------------------|----------------------|----------------------|------------------------|--------------|---------------|--------------|
| Terminal block model | Digital input | NPN (+ common) | 16 | M3 terminal board | 24 VDC | DC/transistor | GT1-ID16 | | | |
| | | PNP (- common) | | | | | GT1-ID16-1 | | | |
| | Digital output | NPN (- common) | | | | 0.5 A, DC/transistor | GT1-OD16 | | | |
| | | PNP (+ common) | | | | GT1-OD16-1 | | | | |
| Connector model | Digital input | NPN (+ common) | | Molex connector | | 24 VDC | DC/transistor | GT1-ID16MX | | |
| | | PNP (- common) | | | | | | GT1-ID16MX-1 | | |
| | Digital output | NPN (- common) | | | | | 0.5 A, DC/transistor | GT1-OD16MX | | |
| | | PNP (+ common) | | | | | GT1-OD16MX-1 | | | |
| | Digital input | NPN (+ common) | Fujitsu connector | | DC/transistor | | GT1-ID16ML | | | |
| | | PNP (- common) | | | | | GT1-ID16ML-1 | | | |
| | Digital output | NPN (- common) | | 0.5 A, DC/transistor | GT1-OD16ML | | | | | |
| | | PNP (+ common) | | GT1-OD16ML-1 | | | | | | |
| | High-density connector model | Digital input | | NPN (+ common) | 32 | | D-sub 25-pin connector | 24 VDC | DC/transistor | GT1-ID16DS |
| | | | | PNP (- common) | | | | | | GT1-ID16DS-1 |
| | | Digital output | NPN (- common) | 0.5 A, DC/transistor | | | | | GT1-OD16DS | |
| | | | PNP (+ common) | GT1-OD16DS-1 | | | | | | |
| High-density connector model | Digital input | NPN (+ common) | 32 | Fujitsu connector | | 24 VDC | DC/transistor | | GT1-ID32ML | |
| | | PNP (- common) | | | | | | | GT1-ID32ML-1 | |
| | Digital output | NPN (- common) | | | | | 0.5 A, DC/transistor | | GT1-OD32ML | |
| | | PNP (+ common) | | | | | GT1-OD32ML-1 | | | |

General Specifications

| | | | |
|--------------------------------------|---|---------------|------------------|
| I/O power supply voltage | 20.4 to 26.4 VDC (24 VDC -15%/+10%) | | |
| Current consumption * | Model | I/O Interface | Internal circuit |
| | GT1-ID16(-1) | 35 mA max. | -- |
| | GT1-OD16(-1) | 35 mA max. | 9 mA max. |
| | GT1-ID16MX(-1) | 35 mA max. | -- |
| | GT1-OD16MX(-1) | 35 mA max. | 9 mA max. |
| | GT1-ID16ML(-1) | 35 mA max. | -- |
| | GT1-OD16ML(-1) | 35 mA max. | 9 mA max. |
| | GT1-ID16DS(-1) | 35 mA max. | -- |
| | GT1-OD16DS(-1) | 35 mA max. | 9 mA max. |
| | GT1-ID32ML(-1) | 55 mA max. | -- |
| GT1-OD32ML(-1) | 65 mA max. | 11 mA max. | |
| Dielectric strength | 500 VAC | | |
| Noise immunity | Conforms to IEC61000-4-4 2 kV (power line) | | |
| Vibration resistance | 10 to 150 Hz, 1.0-mm double amplitude or 70 m/s ² | | |
| Shock resistance | 200 m/s ² | | |
| Mounting method | DIN 35 mm-track mounting | | |
| Mounting strength | No damage when 100 N pull load was applied in all directions (10 N min. in the DIN track direction) | | |
| Terminal strength | No damage when 100 N pull load was applied | | |
| Screw tightening torque | 0.3 to 0.5 N·m | | |
| Ambient operating temperature | -10°C to 55°C (with no icing or condensation) | | |
| Ambient operating humidity | 25% to 85% (with no icing or condensation) | | |
| Ambient storage temperature | -25°C to 65°C | | |
| Accessories | I/O Unit Connecting Cable (40 mm) | | |

* The above current consumption is a value with all 16 and 32 points turned ON excluding the current consumption of the external sensor connected to the Input Unit and the current consumption of the load connected to the Output Unit.

Applicable Connectors

| Type | | Model | Remarks | |
|-------------------------------|-------------------------------|-----------------|----------------------|-------------------------------|
| Molex connector | Solderless terminal | Housing | 51030-0330 | |
| | | Chain terminal | 70058-0004 | Corresponding to 24 to 30 AWG |
| | | | 70058-0022 | Corresponding to 22 to 24 AWG |
| | | Loose terminal | 70058-0204 | Corresponding to 24 to 30 AWG |
| | | | 70058-0272 | Corresponding to 22 to 24 AWG |
| | | Press-fit tool | 57036-5000 | Corresponding to 22 to 26 AWG |
| 57037-5000 | Corresponding to 24 to 30 AWG | | | |
| Fujitsu connector (16 points) | Solder terminal | FCN361J024-AU | | |
| | Press-fit terminal | FCN367J024-AU/F | | |
| | Solderless terminal | FCN363J024-AU | | |
| Fujitsu connector (32 points) | Solder terminal | FCN361J040-AU | | |
| | Press-fit terminal | FCN367J040-AU/F | | |
| | Solderless terminal | FCN363J040-AU | | |
| OMRON D-sub Connector | Plug | XM2A-2501 | | |
| | Hood | XM2S-2513 | #4-40UNC inch screws | |

Cables with High-density Connectors (Fujitsu-compatible Connectors)

| I/O classification | Model |
|----------------------------|-----------|
| Digital input (16 points) | XW2Z-□□□A |
| | G79-□C |
| Digital output (16 points) | XW2Z-□□□A |
| | G79-□C |
| Digital input (32 points) | XW2Z-□□□B |
| | G79-□C□ |
| Digital output (32 points) | XW2Z-□□□B |
| | G79-□C□ |

Note: Refer to page 162 for ordering information.

Input Specifications

| Item | Model | GT1-ID□□ |
|--------------------------|-------|--|
| ON delay | | 1.5 ms max. |
| OFF delay | | 1.5 ms max. |
| ON voltage | | 15 V min. (between each input terminal and V or G) |
| OFF voltage | | 5 V max. (between each input terminal and V or G) |
| OFF current | | 1 mA max. |
| Insulation method | | Photocoupler |
| Input indicators | | LED (yellow) |

Output Specifications

| Item | Model | GT1-OD□□ |
|-----------------------------|-------|---------------|
| Rated output current | | 0.5 A/point * |
| ON delay | | 0.5 ms max. |
| OFF delay | | 1.0 ms max. |
| Residual voltage | | 1.2 V max. |
| Leakage current | | 0.1 mA max. |
| Insulation method | | Photocoupler |
| Output indicators | | LED (yellow) |

* Ensure that the total external load current does not exceed the values given in the following table.

| Model | Total external load current |
|------------------------|-----------------------------|
| GT1-OD16/16MX/32ML(-1) | 4 A |
| GT1-OD16ML/16DS(-1) | 2.5 A |

Cables for I/O Connector

Cables for Connector Terminal Conversion Units (16 Points)

| I/O classification | Model | Applicable cable | Connectable model | Remarks |
|----------------------------|----------------|------------------|-------------------|--|
| Digital input (16 points) | GT1-ID16ML(-1) | XW2Z-□□□A | XW2D-20G6 | Slim-type Connector Terminal Conversion Unit |
| | | | XW2E-20G5-IN16 | Common terminal (3-tier input type) |
| Digital output (16 points) | GT1-OD16ML(-1) | | XW2D-20G6 | Slim-type Connector Terminal Conversion Unit |

Cables for Connector Terminal Conversion Units (32 Points)

| I/O classification | Model | Applicable cable | Connectable model | Remarks |
|----------------------------|----------------|------------------|-------------------|--|
| Digital input (32 points) | GT1-ID32ML(-1) | XW2Z-□□□B | XW2D-40G6 | Slim-type Connector Terminal Conversion Unit |
| Digital output (32 points) | GT1-OD32ML(-1) | | | |

Cables for I/O Blocks (16 Points)

| I/O classification | Model | Applicable cable | Connectable model | Remarks |
|-----------------------------------|--------------|---------------------------|--|----------------------|
| Digital input (16 points) NPN | GT1-ID16ML | G79-□C | G7TC-ID16 G7TC-IA16 | For I/O Block input |
| Digital input (16 points) PNP | GT1-ID16ML-1 | | G7TC-ID16-1 G7TC-IA16-1 | For I/O Block output |
| Digital output (16 points) NPN | GT1-OD16ML | | G7TC-OC16 G7TC-OC08 G70D-SOC16 G70D-FOM16 G70D-VSOC16 G70D-VFOM16 G70A-ZOC16-3 | For I/O Block output |
| | | | M7E Series M7F-□N□□□ | Digital Display Unit |
| Digital output (16 points) PNP | GT1-OD16ML-1 | | G7TC-OC16-1 G70D-SOC16-1 G70A-ZOC16-4 | For I/O Block output |
| | | M7E-01MB□-□□ M7F-□P□□□ | Digital Display Unit | |

Cables for I/O Blocks (32 Points)

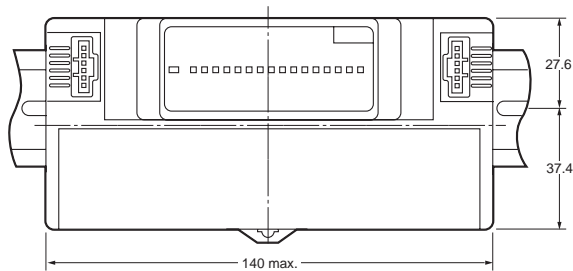
| I/O classification | Model | Applicable cable | Connectable model | Remarks |
|-----------------------------------|--------------|------------------|--|----------------------|
| Digital input (32 points) NPN | GT1-ID32ML | G79-I□C-□ | G7TC-ID16 G7TC-IA16 | For I/O Block input |
| Digital input (32 points) PNP | GT1-ID32ML-1 | | G7TC-ID16-1 G7TC-IA16-1 | For I/O Block input |
| Digital output (32 points) NPN | GT1-OD32ML | G79-O□C-□ | G7TC-OC16 G7TC-OC08 G70D-SOC16 G70D-FOM16 G70D-VSOC16 G70D-VFOM16 G70A-ZOC16-3 | For I/O Block output |
| | | | G7TC-OC16-1 G70D-SOC16-1 G70D-FOM16-1 G70A-ZOC16-4 | For I/O Block output |

Note: For details of applicable cables and connectors, refer to pages 162 to 163.

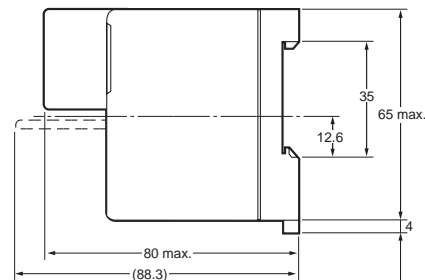
Dimensions

● Terminal Block Model

- GT1-ID16
- GT1-ID16-1
- GT1-OD16
- GT1-OD16-1

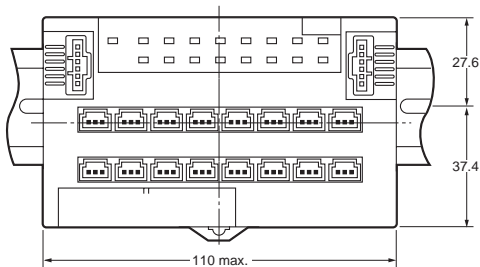


Note: Accessory cable included.

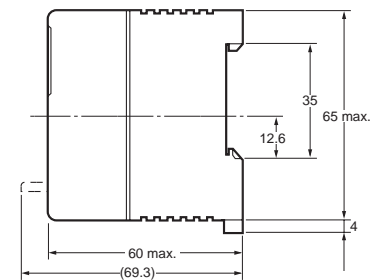


● Connector Model

- GT1-ID16MX
- GT1-ID16MX-1
- GT1-OD16MX
- GT1-OD16MX-1

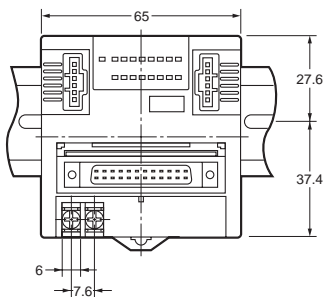


Note: Accessory cable included.

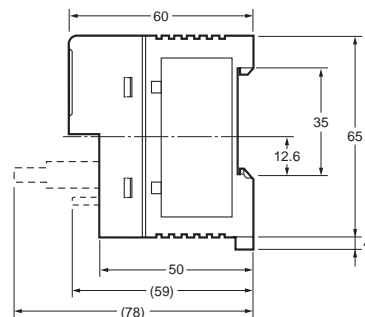


● Connector Model

- GT1-ID16ML
- GT1-ID16ML-1
- GT1-OD16ML
- GT1-OD16ML-1

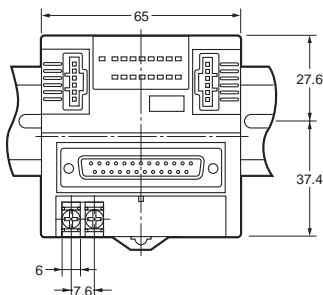


Note: Accessory cable included.

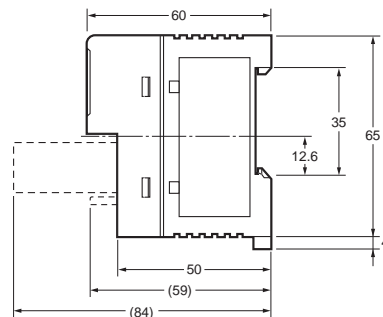


● Connector Model

- GT1-ID16DS
- GT1-ID16DS-1
- GT1-OD16DS
- GT1-OD16DS-1

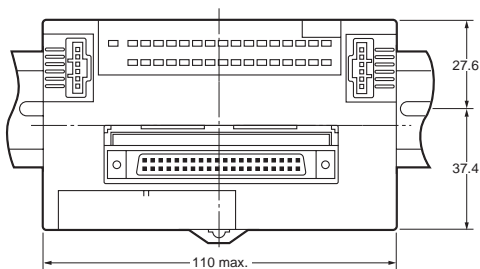


Note: Accessory cable included.

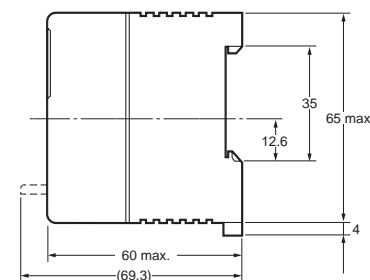


● High-density Connector Model

- GT1-ID32ML
- GT1-ID32ML-1
- GT1-OD32ML
- GT1-OD32ML-1

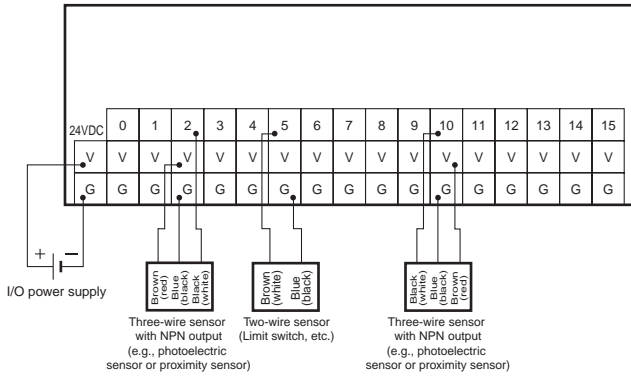


Note: Accessory cable included.

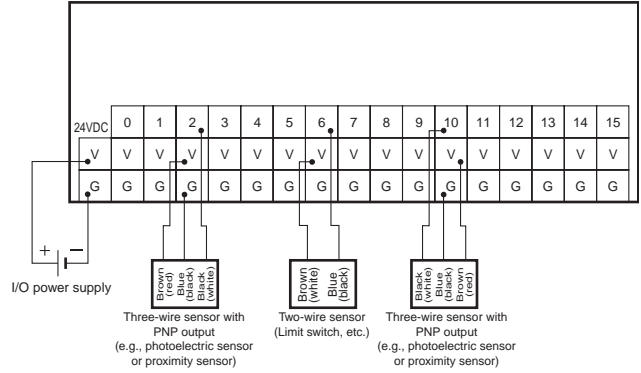


Wiring Diagrams

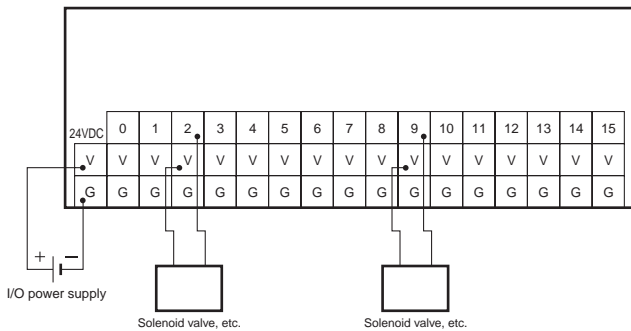
GT1-ID16



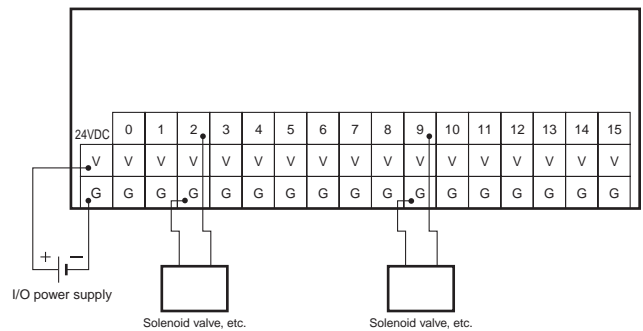
GT1-ID16-1



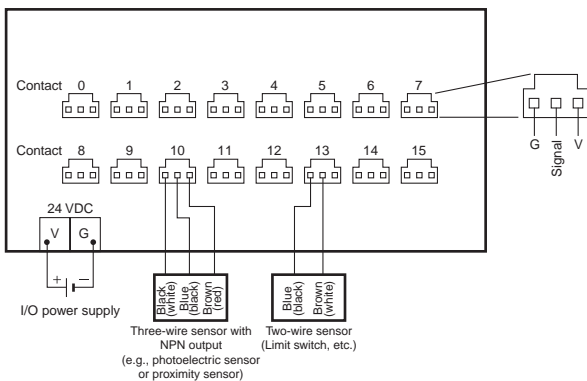
GT1-OD16



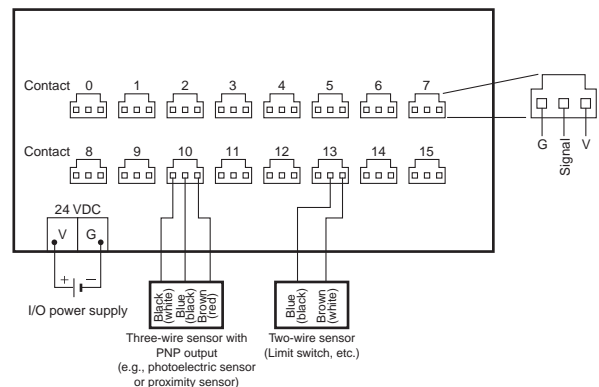
GT1-OD16-1



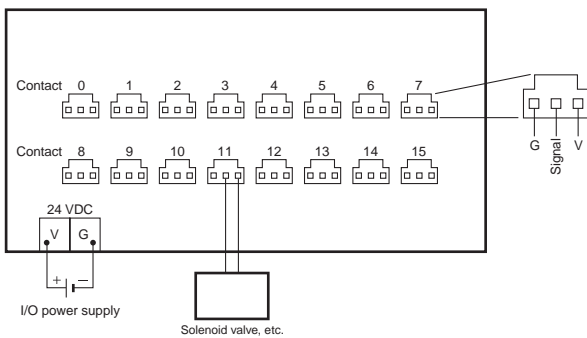
GT1-ID16MX



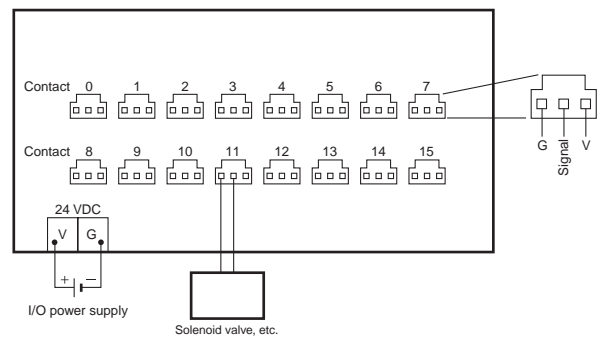
GT1-ID16MX-1



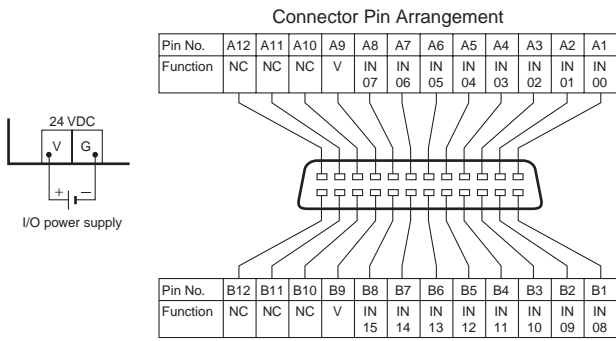
GT1-OD16MX



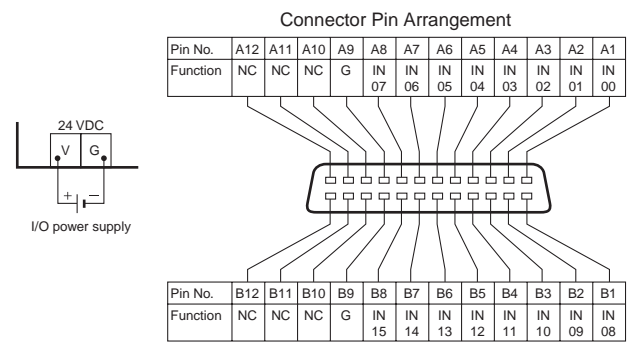
GT1-OD16MX-1



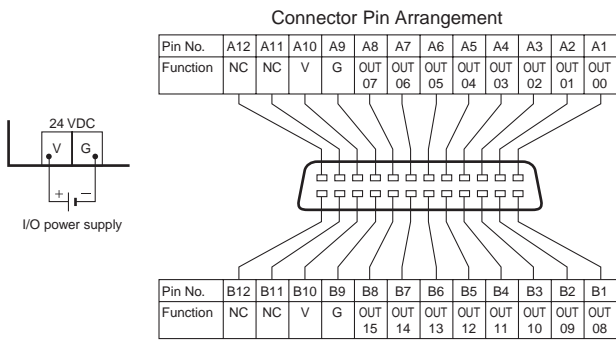
GT1-ID16ML



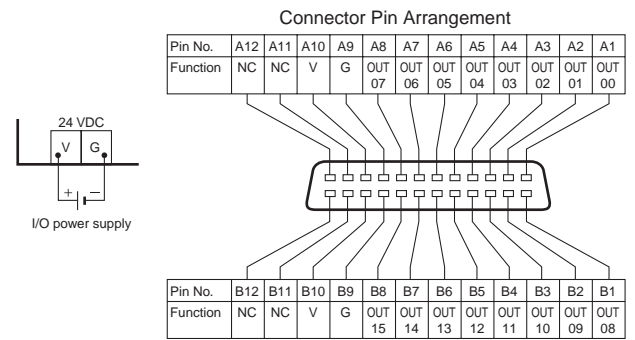
GT1-ID16ML-1



GT1-OD16ML



GT1-OD16ML-1



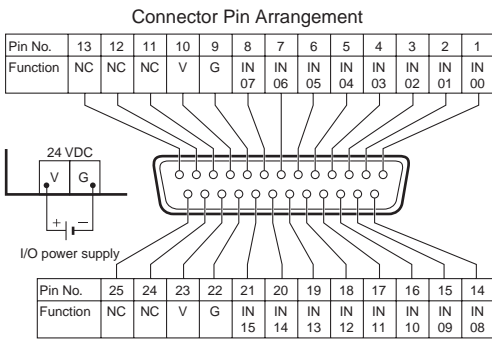
GT1-ID16DS



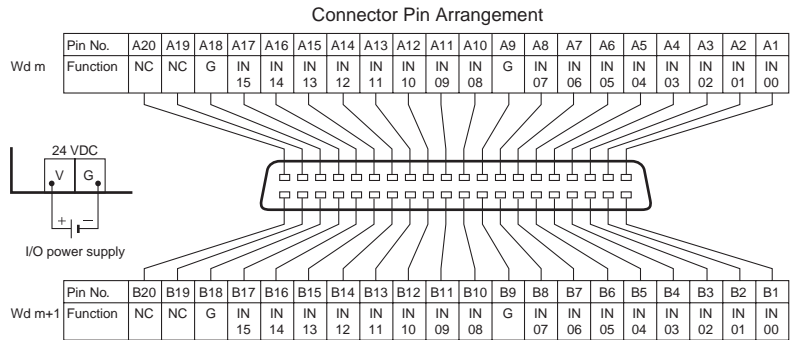
GT1-ID32ML



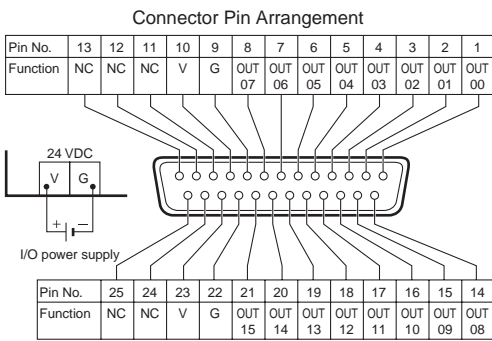
GT1-ID16DS-1



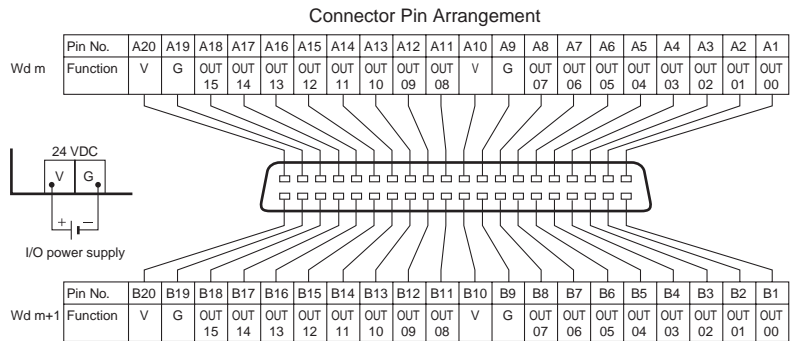
GT1-ID32ML-1



GT1-OD16DS



GT1-OD32ML



GT1-OD16DS-1



GT1-OD32ML-1



Компания «Океан Электроники» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

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- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
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- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Поставка электронных компонентов под контролем ВП;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- При необходимости вся продукция военного и аэрокосмического назначения проходит испытания и сертификацию в лаборатории (по согласованию с заказчиком);
- Поставка специализированных компонентов военного и аэрокосмического уровня качества (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Actel, Aeroflex, Peregrine, VPT, Syfer, Eurofarad, Texas Instruments, MS Kennedy, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

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JONHON

«JONHON» (основан в 1970 г.)

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Телефон: 8 (812) 309-75-97 (многоканальный)

Факс: 8 (812) 320-03-32

Электронная почта: ocean@oceanchips.ru

Web: <http://oceanchips.ru/>

Адрес: 198099, г. Санкт-Петербург, ул. Калинина, д. 2, корп. 4, лит. А