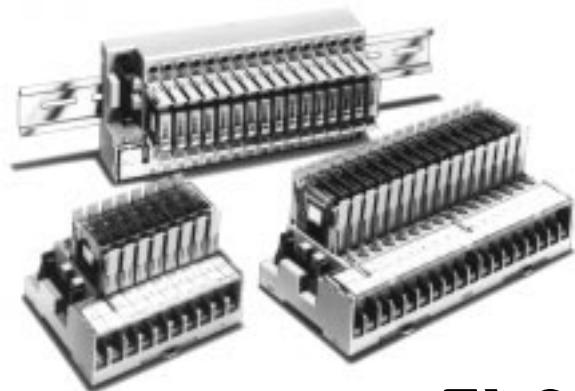


Single Cable Connection to PLC Means Space is Saved and Less Control Panel Wiring is Required.

- Compact size: 182 (W) × 85 (D) × 68 (H) mm (8-point Output Block width is 102 mm).
- Connects to the PC through the connecting cable (G79 Series) and connector, and requires only a snap-in operation.
- Surge suppressor circuit built-in.
- Immediate recognition of I/O signal status using LED operation indicators.
- G3TA I/O Solid-state relay can be mounted instead of G7T.
- Mounts easily on a DIN track.
- Approved by UL, CSA (except for G7TC-OC16-1).



Ordering Information

Model Number Legend

A G7TC I/O Block is a combination of (8 or 16) G7T I/O Relays with SPST-NO specifications and a P7TF I/O Terminal.

G7TC-

1 2 3 4

1. Input/Output Classification

I : For input
O : For output

2. Type of I/O Signal

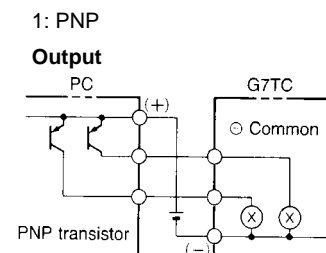
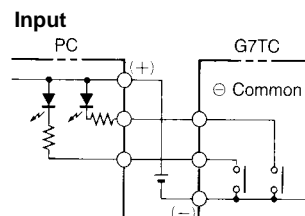
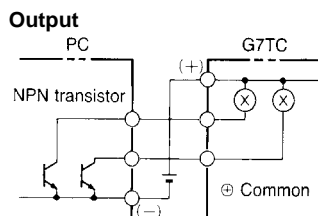
A : AC coil type for input relays mounted (Input/Output Classification: I)
D : DC coil type for input relays mounted (Input/Output Classification: I)
C : Contact output for output relays mounted (Input/Output Classification: O)

3. Number of I/O Points

16: 16 points
08: 8 points (for output only)

4. Internal I/O Circuit Common

Blank: NPN
1: PNP



I/O Block

| I/O classification | I/O points | Internal I/O circuit common | Rated voltage | Model |
|--------------------|------------|-----------------------------|---------------|--------------------------|
| Input | 16 | NPN (– common) | 12 VDC | G7TC-ID16 |
| | | | 24 VDC | |
| | | | 100/110 VDC | |
| | | | 100/110 VAC | G7TC-IA16 |
| | | | 200/220 VAC | |
| Output | 16 | NPN (+ common) | 12 VDC | G7TC-OC16 |
| | | | 24 VDC | |
| | | PNP (– common) | 12 VDC | G7TC-OC16-1 (see note 1) |
| | | | 24 VDC | |
| | 8 | NPN (+ common) | 12 VDC | G7TC-OC08 |
| | | | 24 VDC | |

Note: 1. Not approved by UL, CSA.

2. When ordering, add the rated coil voltage to the model number.

Example: G7TC-ID16 24 VDC

Rated coil voltage

Specifications

■ Coil Ratings (Common to Input/Output per Relay)

| Item Rated voltage (V) | | Rated current (mA) | | Coil resistance (Ω) | Must operate | Must release | Maximum voltage | Power consumption | |
|-------------------------------|---------------------|--------------------|-------------------|------------------------|------------------|--------------|-----------------|-------------------|---------------|
| | | 50 Hz | 60 Hz | | of rated voltage | | | per Relay | per 16 Relays |
| AC | 100/110 200/220 | 8.2 4.1 | 7/7.7 3.5/3.85 | 8,700 33,300 | 80% max. | 30% min. | 105% | 0.7 VA | 11 VA |
| DC | 12 24 100/110 | 42 21 5 | | 290 1,150 20,000 | 80% max. | 10% min. | 105% | 0.5 W | 8 W |

Note: 1. The rated current and coil resistance are measured at a coil temperature of +23°C with a tolerance of +15%/–20% for AC rated current and ±15% for coil resistance.

2. The operating characteristics are measured at a coil temperature of +23°C.

3. The value for maximum voltage is the maximum value within the allowable voltage fluctuation range for the relay coil's operating power supply. Continuous operation at this voltage is not within product specifications.

4. Approx. 4 mA flows into each LED indicator. To calculate the power supply capacity, add the current value of each LED indicator.

■ Contact Ratings (G7T I/O Relay)

| Classification Item | For input | | For output | |
|--|--|---|---|------------------------------------|
| | Resistive load (cosφ=1) | Inductive load (cosφ=0.4 L/R=7 ms) | Resistive load (cosφ=1) | Inductive load (cosφ=0.4 L/R=7 ms) |
| Rated load | 1 A at 24 VDC | 0.5 A at 24 VDC | 5 A at 24 VDC 2 A at 220 VAC | 2 A at 24 VDC 1 A at 220 VAC |
| Rated carry current | 1 A | | 5 A | |
| Max. switching voltage | 250 VAC, 125 VDC | | | |
| Max. switching current | 1 A | 0.5 A | 5 A | 2 A |
| Error rate (reference value) (See note.) | 100 μA at 1 V | | 10 mA at 5 V | |
| Electrical life expectancy | 10,000,000 operations (at 10 mA) 50,000 operations (at 1 A) | 2,500,000 operations (at 10 mA) 20,000 operations (at 1 A) | 1,000,000 operations (under rated load) | |
| Mechanical life expectancy | 50,000,000 operations | | | |

Note: The above values are for a switching frequency of 120 operations/min.

■ Characteristics

| | | Model | G7TC-IA16 (Input, AC coil) | G7TC-ID16 (Input, DC coil) | G7TC-OC16 (–1) (output, DC coil) | G7TC-OC08 (output, DC coil) |
|---|--------------------------------|-------|--|-------------------------------|-------------------------------------|--|
| Item | | | | | | |
| Contact form | | | SPST-NO × 16 | | | SPST-NO × 8 |
| Contact mechanism | | | Bifurcated crossbar contact | | | Single contact |
| Contact material | | | Au cladding + Ag | | | AgInSn |
| Contact resistance (See note 2.) | | | 50 mΩ max. | | | |
| Must Operate time (See note 3.) | | | 15 ms max. | | | |
| Release time (See note 3.) | | | 15 ms max. | | | |
| Max. switching frequency | Mechanical limit | | 18,000 operations/hour | | | |
| | At rated load | | 1,800 operations/hour | | | |
| Insulation resistance | | | 100 MΩ (at 500 VDC) | | | |
| Dielectric strength | Between coil and contact | | 2,000 VAC, 50/60 Hz for 1 minute | | | |
| | Between same polarity contacts | | 1,000 VAC, 50/60 Hz for 1 minute | | | |
| | Between paired connectors | | 250 VAC, 50/60 Hz for 1 minute | | | |
| Vibration resistance | | | 10 to 55 to 10 Hz with 0.5-mm single amplitude (1.0-mm double amplitude) | | | |
| Shock resistance | | | 200 m/s ² | | | |
| Noise immunity | | | Noise level: 1.5 kV; pulse width: 100 ns to 1 μs | | | |
| Rated voltage between positive and negative terminal blocks | | | Rated voltage of controller's (PLC or other) input circuit | | | 12 VDC ± 5% 24 VDC ± 5% |
| Rated current between positive and negative terminal blocks | | | Input circuit current of controller (PLC or other) × number of ON points | | | 12 VDC: 46 mA × number of ON points 24 VDC: 25 mA × number of ON points |
| Cable length (See note 4.) | To controller | | 5 m max. (reference value) | | | |
| | To I/O devices | | 50 m max. (reference value, for 2-mm ² CVV cable) | | | Dependent on load |
| Ambient operating temperature | | | 0 to 55°C | | | |
| Ambient operating humidity | | | 35% to 85% (with no icing or condensation) | | | |
| Tightening torque for external connections | | | 0.78 to 1.18 N·m | | | |
| Tensile strength | | | No damage when a tensile force of 49 N is applied in each direction. In the direction of the track, the tensile strength is 9.8 N min. | | | |
| I/O terminal tightening torque | | | Tightening strength: 0.98 N·m; Tensile strength 49 N per minute | | | |
| LED color | | | Red | | Green | |
| Case color | | | Transparent red | | Transparent green | |
| Coil surge absorber | | | Varistor | | Diode (1 A, 400 V) | |
| Weight | | | Approx. 640 g | | Approx. 670 g | |
| | | | | | Approx. 350 g | |

- Note:**
1. The above values are initial values.
 2. Measurement condition: 1 A at 5 VDC.
 3. Ambient temperature: 23°C.
 4. Connecting cables up to 5 m are available as standard products. For longer cables, enquire separately.

UL and CSA Standards

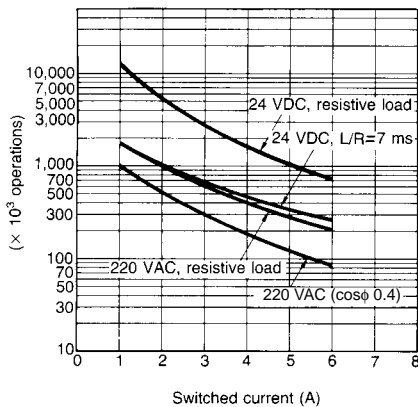
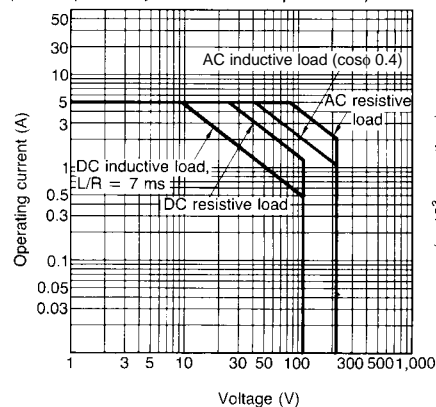
Standard G7TC I/O Blocks, except for the G7TC-OC16-1 and the G7TC-OC08, have met UL and CSA standards (UL file no. E95399; CSA file no. LR35535).

Note that the following UL- and CSA-qualifying ratings differ from the performance characteristics of the individual models:

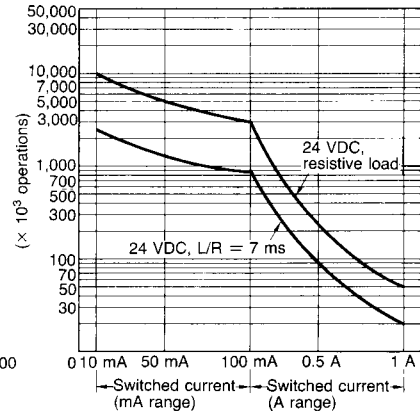
| Model | Coil ratings | Contact ratings |
|----------------------|----------------------------|--|
| G7TC-ID16, G7TC-IA16 | 10 mA/point, 24 VDC | 250 VAC max. |
| G7TC-OC16 | Coil drive current, 24 VDC | Inductive load: 10 A, 250 VAC Resistive load: 10 A, 30 VDC Rated horsepower: 1/2 HP, 240 VAC |

Engineering Data

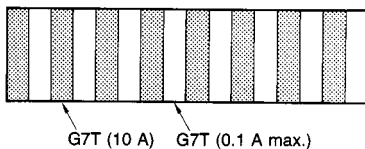
Life Expectancy of Output

Max. Switching Capacity of Output
(Life expectancy : 1,000,000 Operations)

Life Expectancy of Input

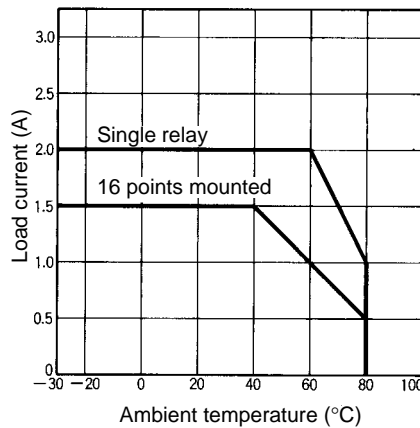
Example for Output Block
(for Reference)

If a G7T I/O Relay is mounted in every other position on an Output Block (see drawing), a resistive load of 10 A (24 VDC) can be switched. Note that the service life is reduced to 150,000 operations in this case.

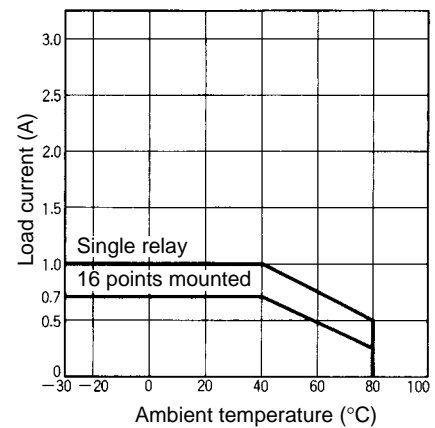


Load Current vs. Ambient Temperature

G3TA-OA202SZ
G3TA-OA202SL
G3TA-ODX02S



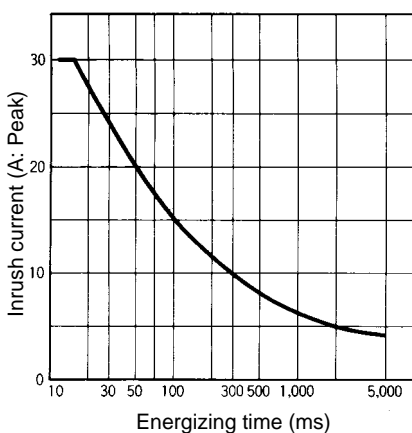
G3TA-OA201S



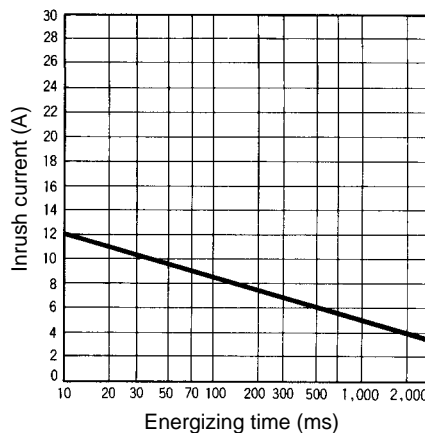
Inrush Current

The following graphs show the maximum inrush currents that can be withstood for non-repetitive operation. For repetitive operation, the figures should be reduced by half.

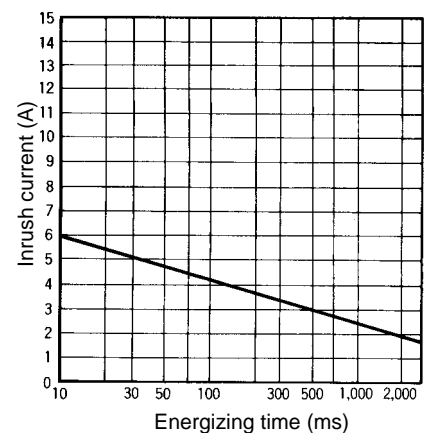
G3TA-OA202SZ
G3TA-OA202SL



G3TA-ODX02S

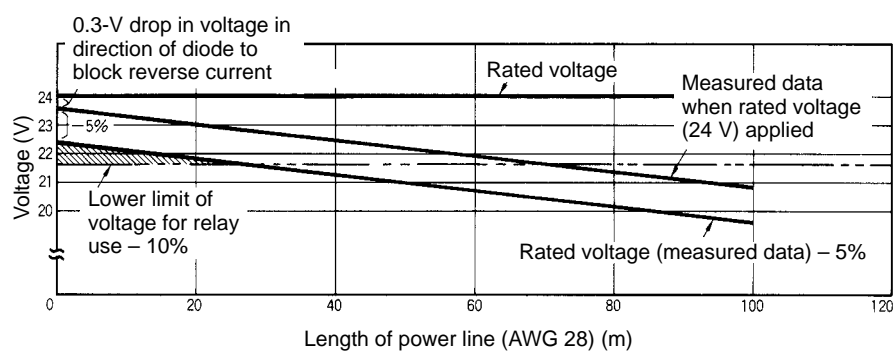


G3TA-OD201S



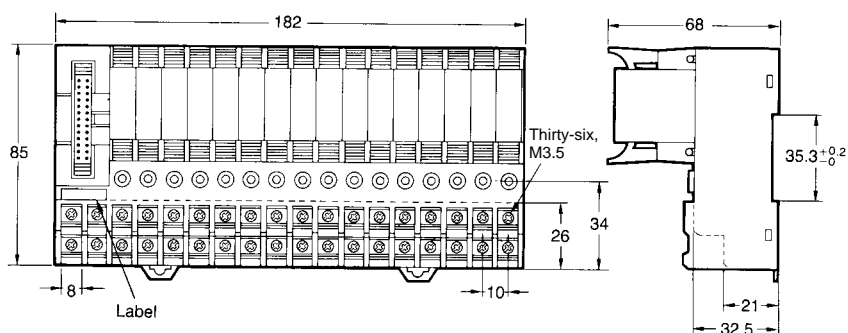
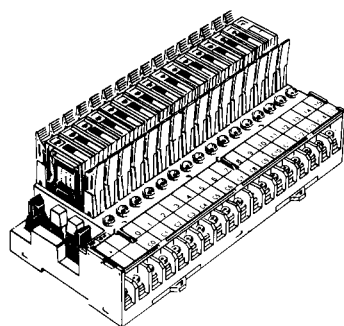
Cable Length

The following graph gives reference values for the relationship between cable length and voltage in the case where the voltage fluctuation of the power supply is 5%.

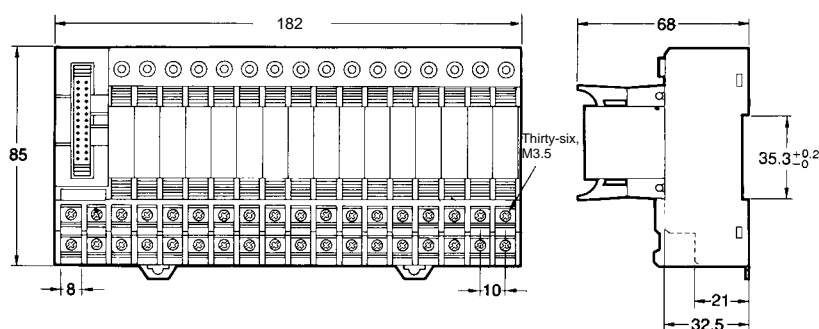
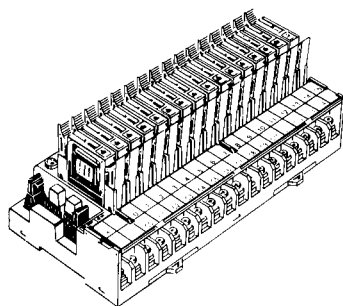


Dimensions

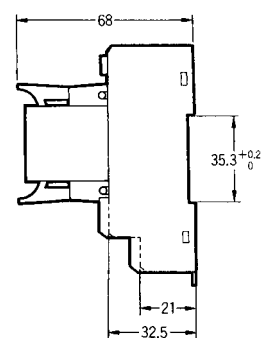
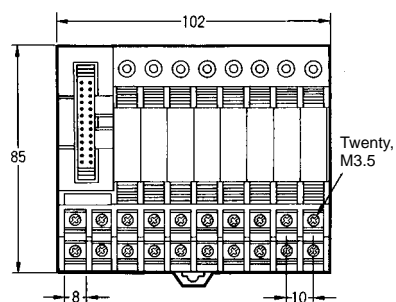
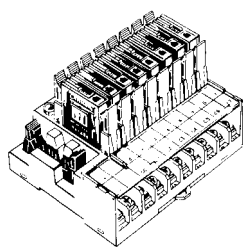
G7TC-ID16
G7TC-IA16



G7TC-OC16
G7TC-OC16-1

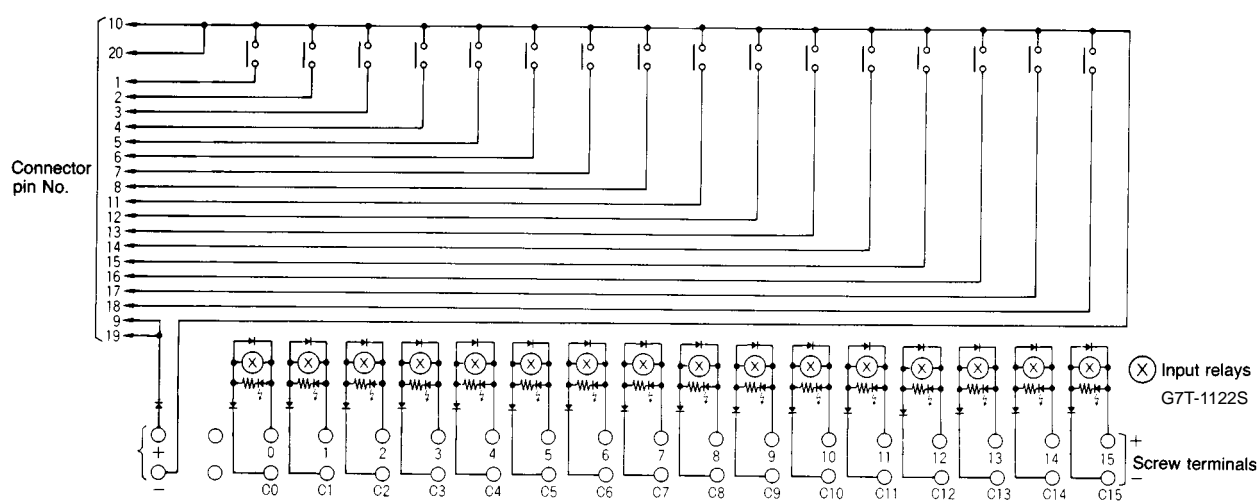


G7TC-OC08

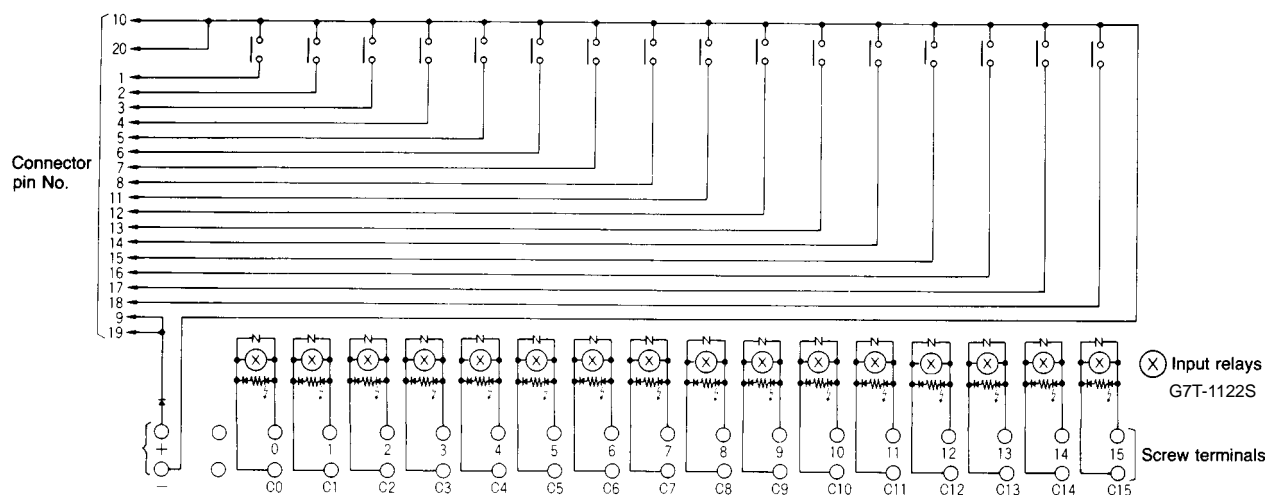


■ Terminal Arrangement/Internal Connection

G7TC-ID16 (NPN input/- common)

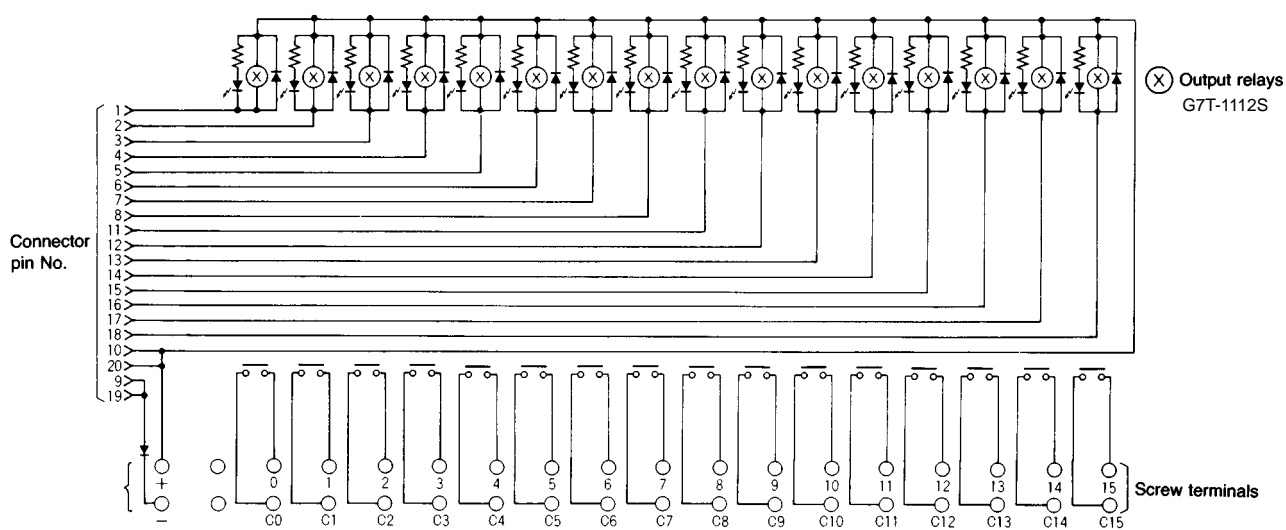


G7TC-IA16 (NPN input/- common)

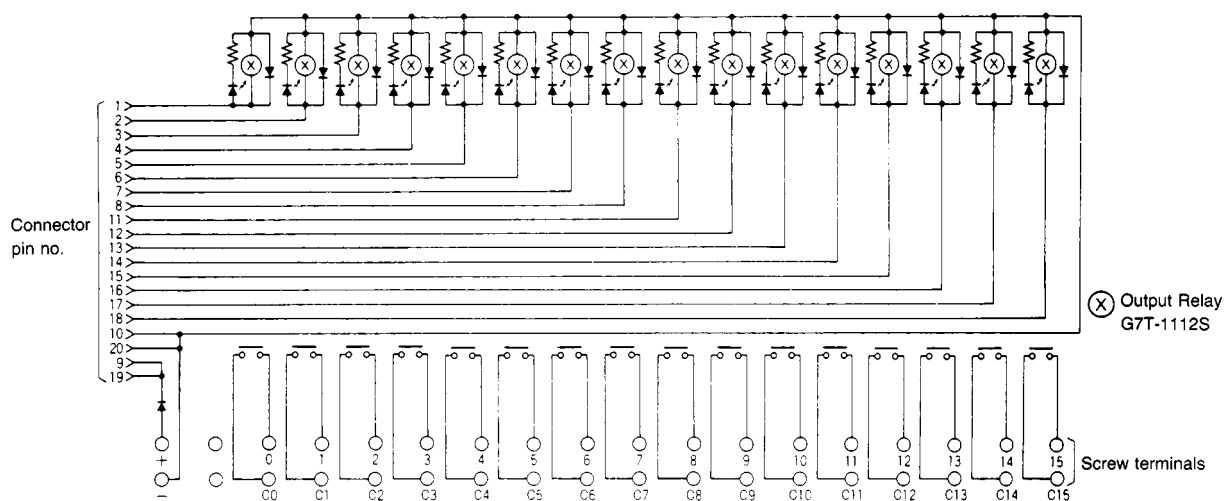


G7TC-OC16

Note: A controller with an NPN transistor, common output can be connected to the G7TC-OC16.

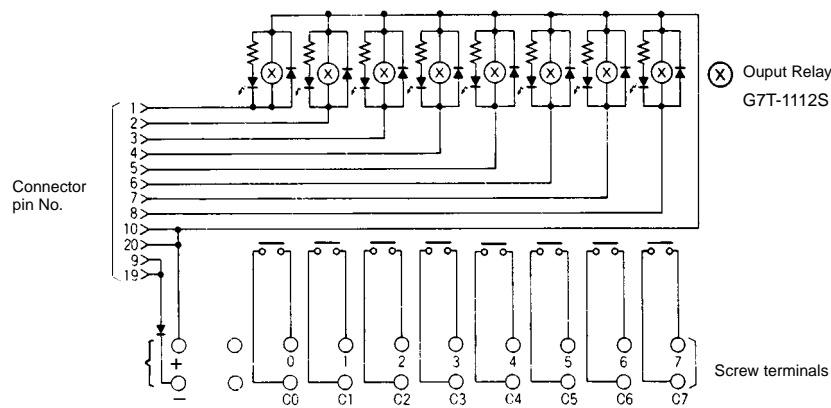
**G7TC-OC16-1**

Note: A controller with a PNP transistor, + common output can be connected to the G7TC-OC16-1. Do not connect the G71 Remote Interface to the G7TC-OC16-1. Due to the difference in polarity, the G71 will be damaged if the G7TC-OC16-1 and the G71 are connected to each other. Use the G7TC-OC16 (NPN output/+ common) instead, to connect to the G71.

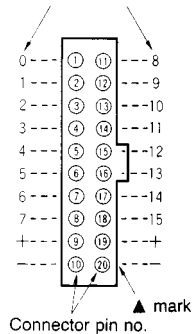


G7TC-OC08 (NPN output/+ common)

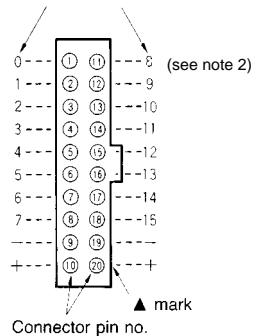
Note: A controller with an NPN transistor, – common output can be connected to the G7TC-OC08.


Connector Pin Configuration
Top View

I/O indications on Screw Terminals of G7TC-ID16,
G7TC-IA16, G7TC-OC16-1



I/O Numbers Allocated to Screw Terminals of
G7TC-OC16 and G7TC-OC08



- Note:**
1. Pin numbers are indicated for convenience. The ▲ mark can be used to determine orientation.
 2. The G7TC-OC08 does not have terminals 8 to 15.

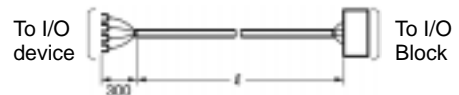
Accessories (Order Separately)

■ G79 Connecting Cables

G79-Y□C Connecting Cable with Crimp-type Hooks

This Cable is convenient for connecting I/O Blocks to devices equipped with screw terminals.

| Length (ℓ) | Model |
|------------|-----------|
| 1,000 mm | G79-Y100C |
| 1,500 mm | G79-Y150C |
| 2,000 mm | G79-Y200C |
| 3,000 mm | G79-Y300C |
| 5,000 mm | G79-Y500C |



- Note:**
1. Power line capacity must be within 50 mA per I/O point. Always check driver capacity and I/O relay power consumption when using an Output Block.
 2. Hooks are labeled with corresponding connector pin numbers.
 3. Connect terminals 9 and 19 and terminals 10 and 20 together when using the G7TC-OC08.
 4. The separate wires at the device end of the Cable each have a diameter of AWG 28 (10/0.38).

G79-A□C Connecting Cable

This Cable has separate wires at the device end.

| Length (ℓ) | Model |
|------------|-----------|
| 2,000 mm | G79-A200C |
| 5,000 mm | G79-A500C |



- Note:**
1. The separate wires at the device end of the Cable each have a diameter of AWG 24 (7/0.203).
 2. Connect terminals 9 and 19 and terminals 10 and 20 together when using the G7TC-OC08.

G79-□C Connecting Cable with One Connector

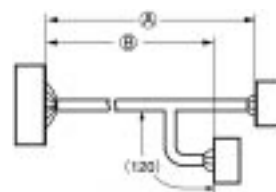
This Cable is convenient for connecting an I/O Block to a single device equipped with one connector socket.

| Length (ℓ) | Model |
|------------|----------|
| 1,000 mm | G79-100C |
| 1,500 mm | G79-150C |
| 2,000 mm | G79-200C |
| 3,000 mm | G79-300C |
| 5,000 mm | G79-500C |

**G79-O□C-□ and G79-I□C□ Connecting Cables with Two Connectors**

Cables for both Output Blocks (for connection to SYSMAC I/O Units; tape color: red) and Input Blocks (for connection to SYSMAC I/O Units; tape color: yellow) are available.

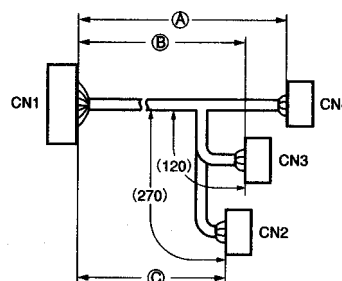
| Length | | Cables for Input Blocks | Cables for Output Blocks |
|----------|----------|-------------------------|--------------------------|
| A | B | | |
| 1,000 mm | 750 mm | G79-I100C-75 | G79-O100C-75 |
| 1,500 mm | 1,250 mm | G79-I150C-125 | G79-O150C-125 |
| 2,000 mm | 1,750 mm | G79-I200C-175 | G79-O200C-175 |
| 3,000 mm | 2,750 mm | G79-I300C-275 | G79-O300C-275 |
| 5,000 mm | 4,750 mm | G79-I500C-475 | G79-O500C-475 |



- Note:** The 32-point card-type connector for Input Block Cables and that for Output Block Cables have different pin arrangements.

G79-□C-□-□ Connecting Cable with Three Connectors

| Length | | | Model |
|----------|----------|----------|------------------|
| A | B | C | |
| 1,500 mm | 1,250 mm | 1,000 mm | G79-150C-125-100 |
| 2,000 mm | 1,750 mm | 1,500 mm | G79-200C-175-150 |
| 3,000 mm | 2,750 mm | 2,500 mm | G79-300C-275-250 |



The lengths given are for straight lines and do not take bends into account.

Applicable Sockets

| OMRON C200H, C500, C1000H, or C2000H PCs | | | I/O Block | | |
|---|---|--|-------------------------------------|-----------------------------------|---|
| I/O Unit | Plug | Socket | Model | Plug | Socket |
| C200H-ID215 C200H-OD215 C200H-MD215 C500-ID218CN C500-OD415CN | Fujitsu FCN-365P024-AU (two required) | Two of any of the following sets (made by Fujitsu). Set number 1 included. 1. FNC-361J024-AU (solder-type) FNC-360C024-B (connector cover) 2. FNC-363J024-AU (crimp-type) FNC-360C024-B (connector cover) 3. FNC-367J24-AU/F (crimp-type, 1 A max. for common) Set No. 1 is included with the PC. Set No. 3 is included with the G79 cable. | G7TC-IA16 G7TC-ID16 G7TC-OC16 | OMRON XG4A-2031 (See note.) | OMRON XG4M-2030 (See note.) XG4T-2004 (See note.) (included with Cable.) |

Note: Meets MIL standard

The following OMRON Sockets and Covers can also be used on the G7TC side when manufacturing a connecting cable.

Socket: XG5M-2035 (applicable wire: AWG 26 to AWG 28 (UL-1007))

XG5M-2032 (applicable wire: AWG 24 (UL-1061))

Cover: XG5S-1001 (two required)

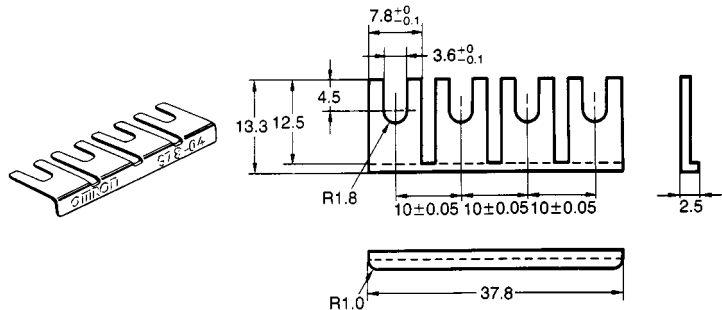
XG5S-2012 (one required)

■ Shorting Bar

G78-04

Use this piece for short-circuiting across terminals.

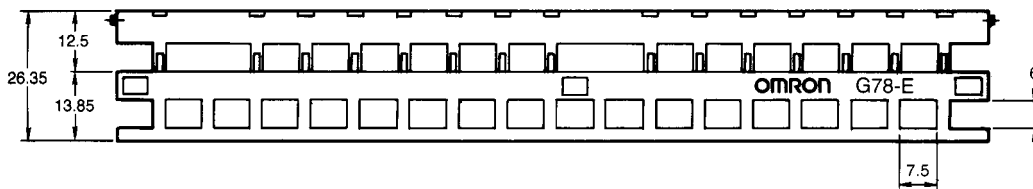
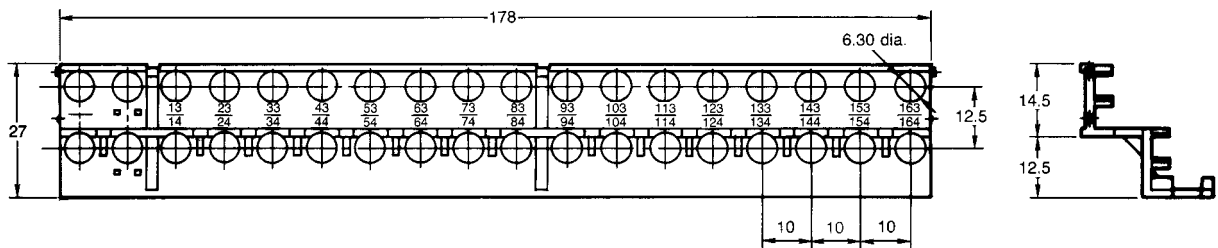
Max. current flow: 20 A



■ Finger Protection Cover for G7TC or P7TF (Meets VDE 0106 Part 100)

G78-E

Note: This cover cannot be used with an 8-point type unit.



I/O Block Details

Input Blocks

G7TC-ID16

G7TC-IA16

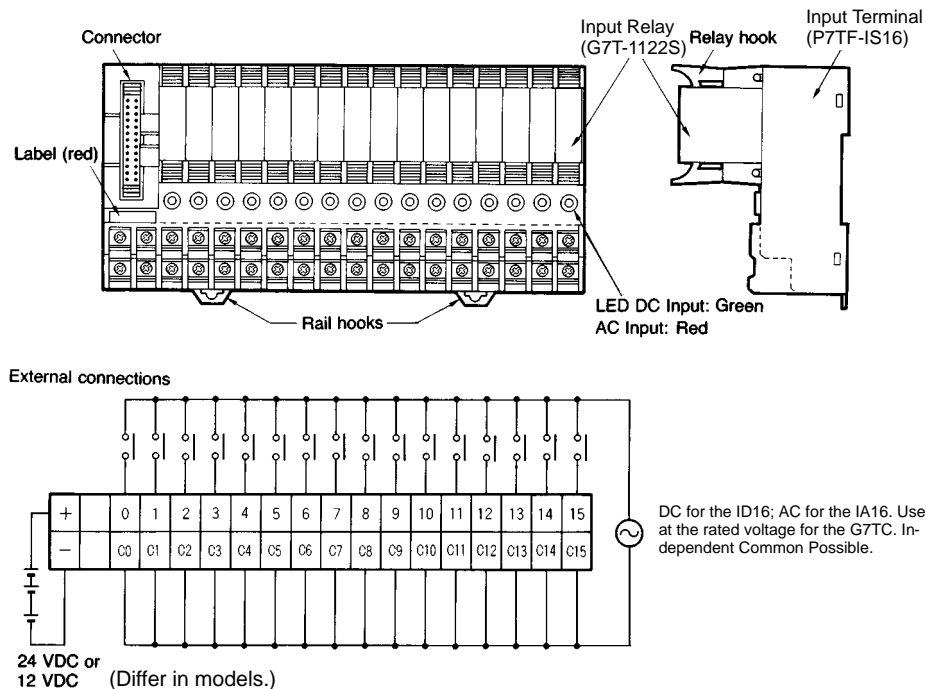
Supply power to terminals 0 through 15 and C0 through C15 according to the voltage specifications of the I/O Relays and I/O Block. Do not reverse positive and negative terminals on the DC Input Block (0 through 15 are positive; C0 through C15, negative). Shorting bars are available.

Supply to the power terminal (positive and negative) the rated voltage of the controller's input circuits (24 VDC or 12 VDC). Use a low-noise power source.

When using a Connecting Cable with two connectors, be sure to use the Cable for Input Blocks. Using the Cable for Output Blocks may result in malfunction or damage to the product.

Connecting Cable: G79-I□C-□

Tape Color: Red



Output Block

G7TC-OC16(-1)

G7TC-OC08

There are voltage specifications for the Relays and Terminals. Depending on the controller connected, select either 12 or 24 VDC.

Supply power to contact output terminals 0 through 15 and C0 through C15 according to the requirements of the loads. A 4 terminal Shorting Bar is available.

Supply to the power terminals (positive and negative) power both for driving the relays and for controller output transistors. Match the controller and I/O block voltage specifications. Use a low-noise power source.

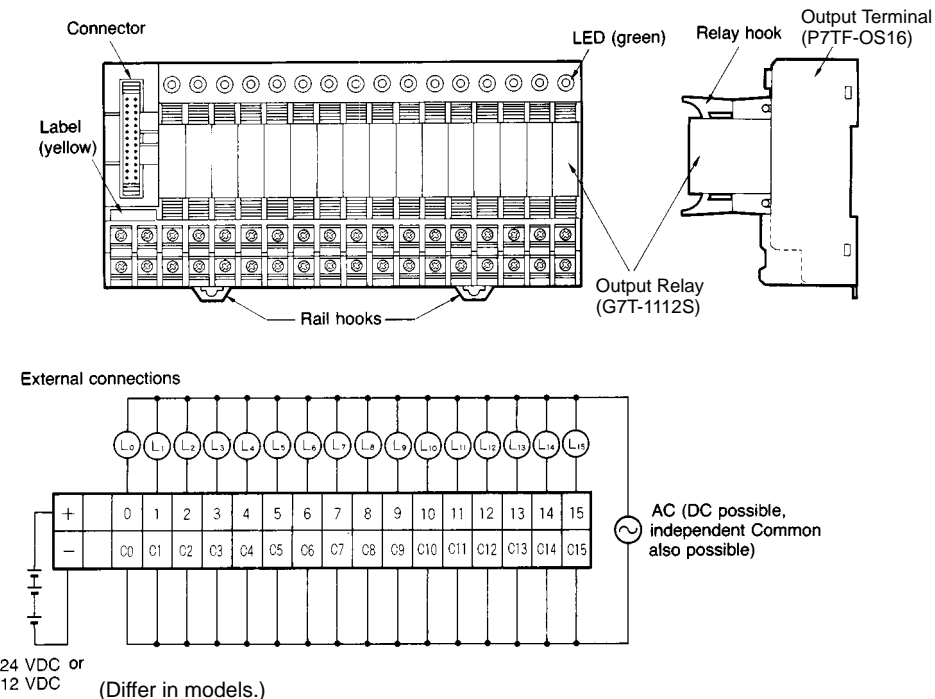
When using a Connecting Cable with two connectors, be sure to use the Cable for Output Blocks. Using the Cable for Input Blocks may result in malfunction or damage to the product.

Connecting Cable: G79-O□C-□

Tape Color: Yellow

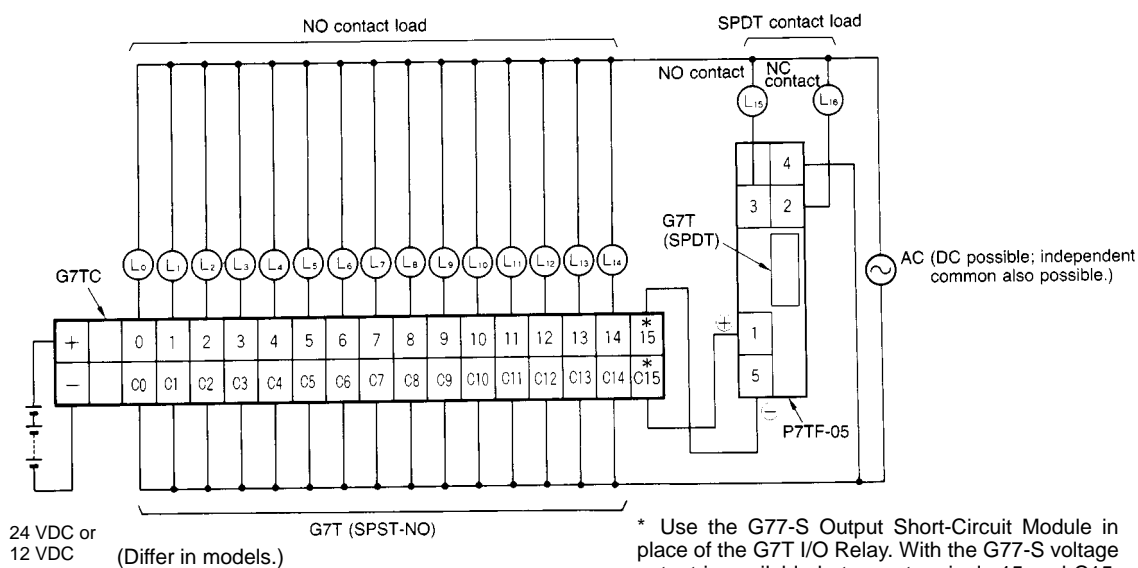
Output Block Unit G7TC-OC08 does not have terminals 8 through 15 and C8 through C15. Although a 20-pin connector is used, pins 11 through 18 are not connected.

When an I/O SSR (G3TA-OD□□) is mounted, terminals 0 to 15 will be positive.



Connection Example for SPDT Relays

The following is an application example for the P7TF-05 using an SPDT Relay on a terminal of the G7TC-16(-1).



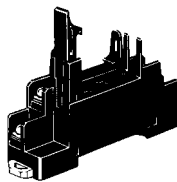
* Use the G77-S Output Short-Circuit Module in place of the G7T I/O Relay. With the G77-S voltage output is available between terminals 15 and C15. The maximum current is determined according to the controller.

Note: If more than one G77-S Output Short-Circuit Module is employed, the voltage output of the terminals on the G7TC is as follows:
 G7TC-OS16: The positive side (the lower row) connects to the common line internally.
 G7TC-OS16-1: The negative side (the upper row) connects to the common line internally.

■ P7TF-05 Socket

The G7T (SPST-NO, SPST-NC, and SPDT types) and the G3TA I/O Relays can be mounted on the P7TF-05 Socket.

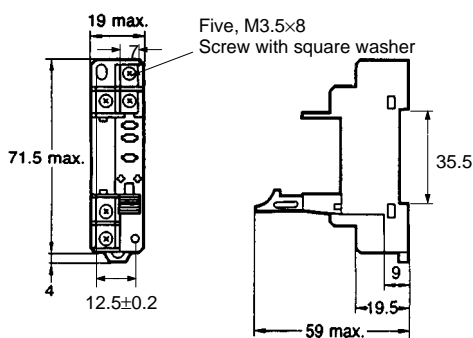
The P7TF-05 can be used for applications involving sequences that require slim relays, or to enable use of SPDT relays with the I/O Block. To use part of the I/O Block with SPDT specifications, insert an Output Short-Circuit Module into the I/O Block, and use the P7TF-05 Socket in combination with an SPDT Relay for the Module's output.



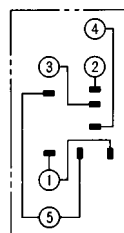
Specifications

| | |
|------------------------------|--------------------------------------|
| Contact resistance | 10 mΩ max. |
| Dielectric strength | 2,000 VAC for 1 minute |
| Insulation resistance | 100 MΩ (at 500 V) |
| Vibration resistance | 10 to 55 Hz, 1.0 mm double amplitude |
| Shock resistance | 200 m/s ² |
| Ambient temperature | Operating: 0 to 55°C |
| Ambient humidity | 35% to 85% |
| Weight | Approx. 28 g |

Dimensions

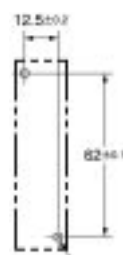


Internal Connections (Top View)



Note: Terminal 1 is positive when the I/O SSR is employed.

Mounting Hole Dimensions

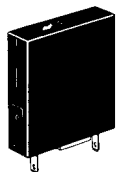


4 dia. or M3

Note: Terminal 1 is positive when the G3TA or Indicator Module is employed.

■ P70 Indicator Module (With Surge Suppressing Function)

Remove the transparent style strip of the P7TF-05 socket and mount this module and it will function as an operation indicator with the surge suppression.

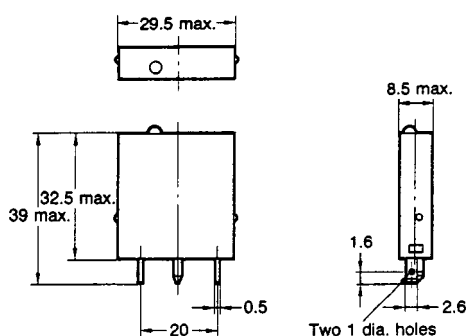


Ordering Information

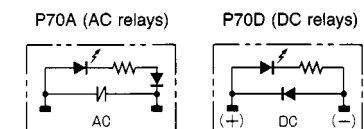
| Model | | Applicable relay coil voltage | Remarks |
|--------------|------|-------------------------------|--|
| For AC relay | P70A | 100 (110) VAC | Surge suppressing system with varistor |
| | | 200 (220) VAC | |
| For DC relay | P70D | 12/24 VDC | Surge suppressing system with diode |

Note: 1. Order the indicator module suitable for the relay coil voltage.
2. The indicator module for DC relays has a multiple power supply common to both 12 and 24 VDC.

Dimensions



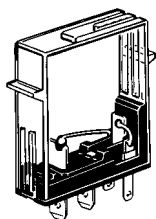
Internal Connection



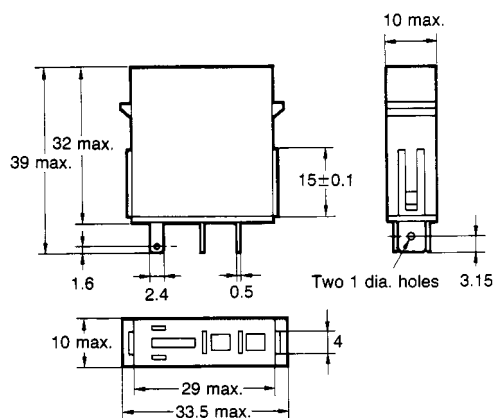
(There is no coil polarity for AC relays.)

■ G77-S Output Short-Circuit Module

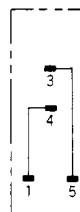
The output of the I/O Block can be obtained without relays through the G77-S Output Short-Circuit Module. Note that the G77-S Output Short-Circuit Module is not available for inputs.



Dimensions



Terminal Arrangement/Internal Connections (Bottom View)

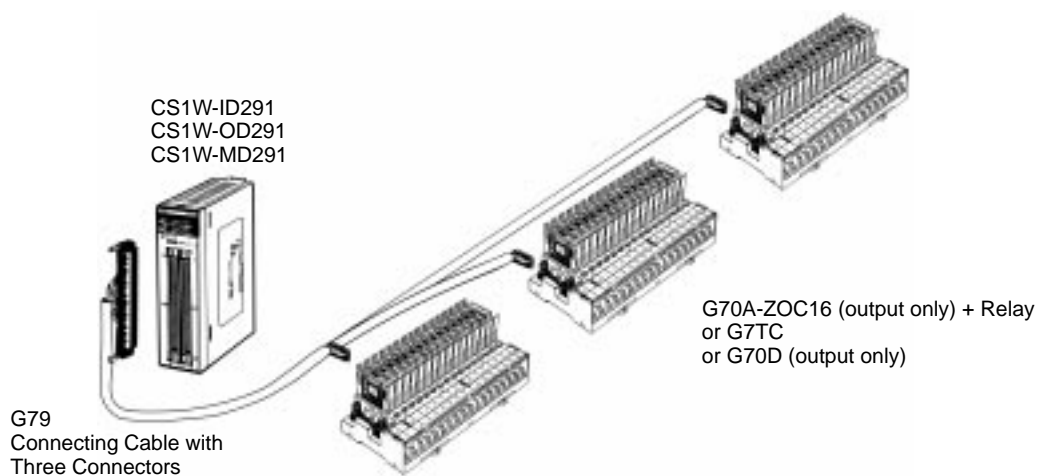


(There is no coil polarity.)

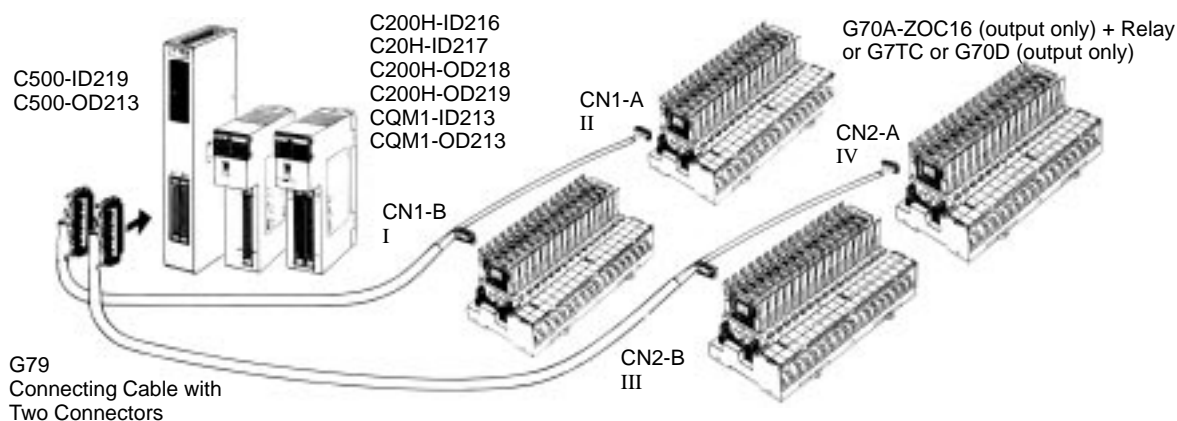
System Configuration

Connector-equipped cables can be used as shown below to quickly connect I/O Blocks to I/O Units.

■ Connecting Cables with Three Connectors

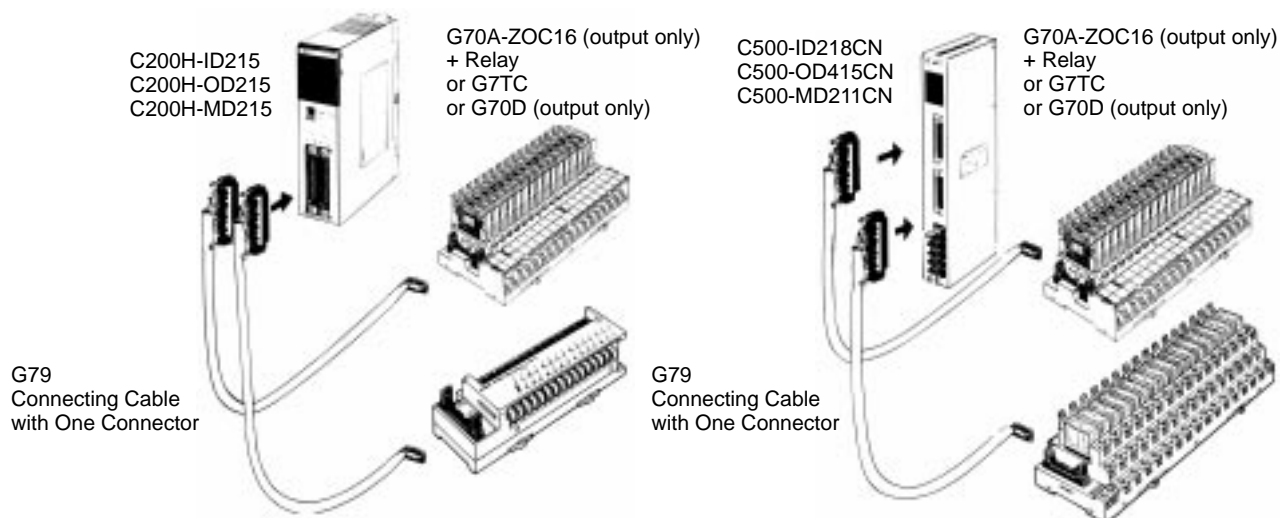


■ Connecting Cables with Two Connectors



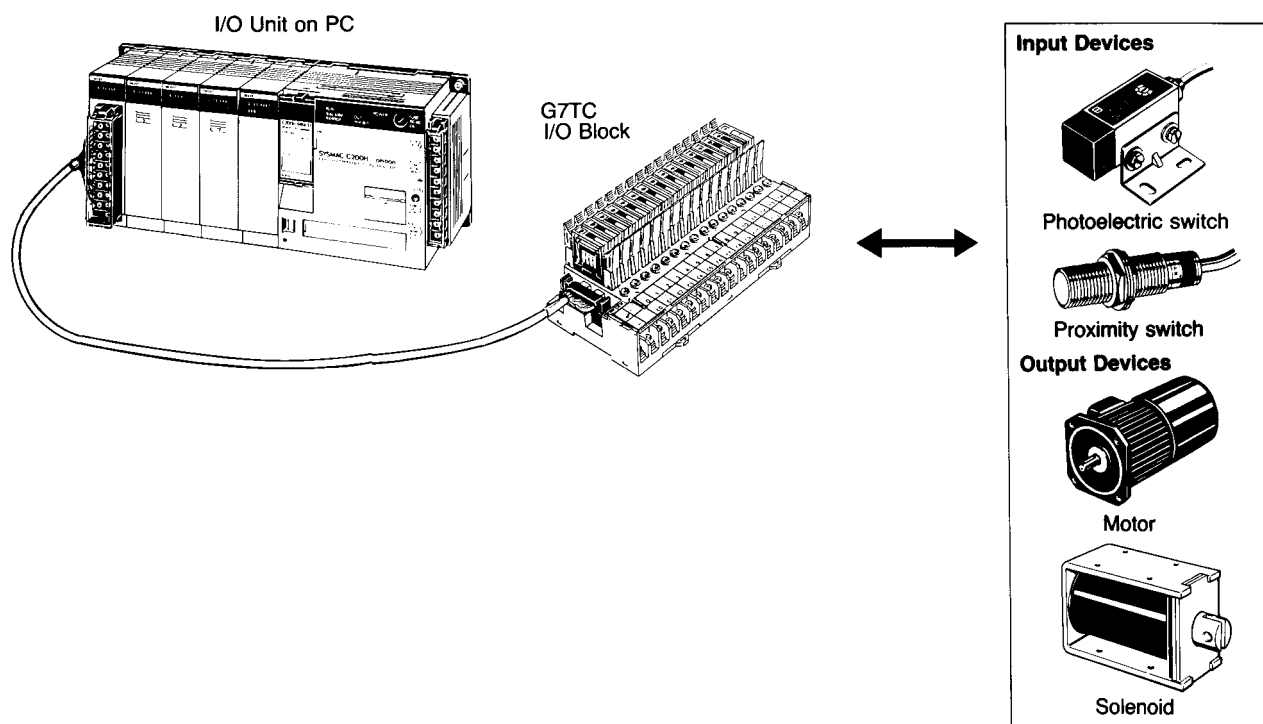
- Note:** 1. In the above diagram, I to IV indicate the column numbers for C500 I/O Unit connector pins.
2. In the above diagram, CN1-A/-B and CN2-A/-B indicate the column numbers for C200H I/O Unit connector pins.

■ Connecting Cables with One Connector



■ Connecting to Programmable Controller through Crimp-type Hooks

I/O Units without connectors can be easily connected to the I/O Block through the connecting cable equipped with crimp-type hooks.



Precautions

■ General

I/O Relays and I/O Block Bases can be combined as follows to form I/O Blocks:

| | Combinations (See note.) | Block Base | I/O Relay | I/O SSR | |
|-----------|---------------------------------------|---------------------------------------|-----------|---------|------------------------------|
| DC output | G7TC-OC16 G7TC-OC16-1 G7TC-OC08 | P7TF-OS16 P7TF-OS16-1 P7TF-OS08 | G7T-1112S | AC | G3TA-OA202SZ G3TA-OA202SL |
| | | | | DC | G3TA-ODX02S G3TA-OD201S |
| DC input | G7TC-ID16 | P7TF-IS16 (DC type) | G7T-1122S | AC | G3TA-IDZ002 (M) |
| AC input | G7TC-IA16 | P7TF-IS16 (AC type) | | DC | G3TA-IAZR02S |

Note: The model numbers given under "Combinations" are for combinations with I/O Relays. To use I/O SSRs, either replace an I/O Relay with the SSR, or purchase an I/O Terminal (Block Base) and an I/O SSR (i.e., not the combined Unit).

- Combinations of AC Input Relays/SSRs and DC Input Relays/SSRs cannot be used with the same Terminal. This is because specifications for coil surge suppression elements are different.

Relays/SSRs with different voltage specifications cannot be used with the same Terminal. (For example, a 100-VAC Input Relay and a 200-VAC Input Relay, or a 12-VDC Output Relay and a 24-VDC Output Relay cannot be used with the same Terminal.) This is because specifications of operation indicator circuits are different.

- Only use I/O Terminals, I/O Relays, and I/O SSRs with the same specifications for rated voltage.

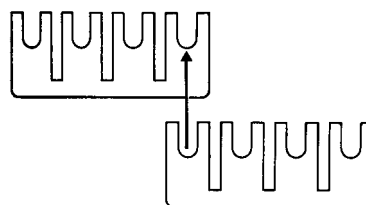
■ General

- I/O Blocks are color coded, as shown below, according to input/output and AC/DC specifications.

| | I/O Terminal label | I/O Terminal indicators | I/O Relay case |
|-------------------|--------------------|-------------------------|----------------|
| Output Block (DC) | Yellow | Green | Transparent |
| Input Block | DC | Green | Green |
| | AC | Red | Red |

- Both Input and Output Blocks do not have internal power supplies. For an Output Block, supply the relay drive power to the positive and negative terminals (either 12 or 24 VDC). Loads (terminal contacts 0 through 15) must also be supplied with appropriate power. For an Input Block, supply, to the positive and negative terminals, power for input signals to the controller.
- The same Connecting Cable, G79-Y, is used for the G7TC-OC08 eight-point Output Block as for other I/O Blocks; leave 8 points unconnected.
- Indicators indicate the presence or absence of signals.
Use the display lever inside each relay for fault diagnosis. (Some relays do not have this lever depending on the specifications.)
- Each relay must be pressed down until its hold-down hooks engage completely. Heating or malfunction can result if relays are not mounted properly.
- Unlabeled terminals are not electrically connected. Use these for repeater terminals.
- Indicator positions and relay orientation differ between Input and Output Blocks. This is to aid in differentiating Input Blocks from Output Blocks and in following signal flow.
- DC Input Blocks and Output Blocks with G3TA-OD□□□□ have positive and negative terminals, with the positive terminals normally being on the top of the I/O Block. Reversing positive and negative terminals will prevent operation.

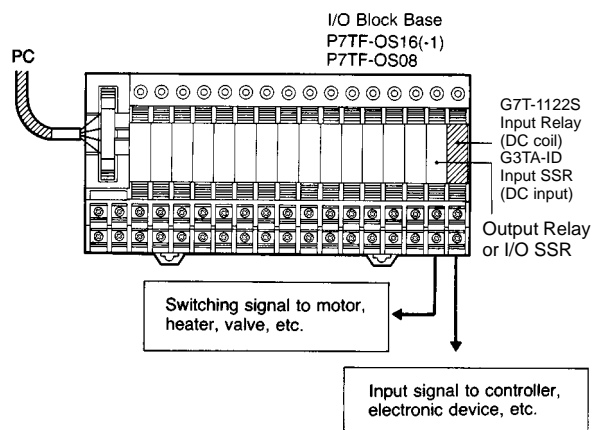
- DIN tracks are generally used to mount I/O Blocks. For screw mounting, a 210-mm DIN track is available that can be used as an adapter in combination with End Plates (PFP-M, two required).
- A Shorting Bar is provided to connect four terminals. The current capacity of the shorting bar is 20 A. As long as this current capacity is not exceeded, the shorting bar can be used in combination as shown at the right to connect more than four terminals.



- Special Connecting Cables are provided for connections to OMRON SYSMAC I/O Units with Connectors. Connecting Cables with two connectors, however, come in two types: Cables for Input Blocks (G79-I) and Cables for Output Blocks (G79-O). Be sure to purchase the correct Cable for the application.

■ Microload Switching

Input Relays (DC coil type) and I/O SSRs (DC input type) can be mounted onto an Output Block. Doing so enables using controller programming to simultaneously switch on or off two outputs (DPST-NO operation) to switch a SPST-NO load that in turn switches another SPST-NO load. One configuration for this is shown below.



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To convert millimeters into inches, multiply by 0.03937. To convert grams into ounces, multiply by 0.03527.

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Printed in Japan
0101-1M (0796) (A)

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