

2.2 Input and Output Specifications

2.2.1 Input Specifications

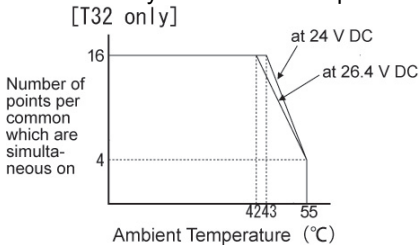
Input specifications (for all types)

Item	Description
Insulation method	Optical coupler
Rated input voltage	24 V DC
operating voltage range	21.6 V DC to 26.4 V DC
Rated input current	Approx. 2.6 mA
Output points per common	For C10: 6 points/common For C14, C16: 8 points/common For C32, T32, F32: 16 points/common (Either the positive or negative of the input power supply can be connected to common terminal.)
Min. on voltage/Min. on current	19.2 V DC/2 mA
Max. off voltage/Max. off current	2.4 V DC/1.2 mA
Input impedance	9.1 k Ω
Response time	OFF→ON 20 μ s or less Note) The input time constant can be set using system registers. (0.1 ms to 64 ms)
	ON→OFF Same as above
Operating mode indicator	LED display

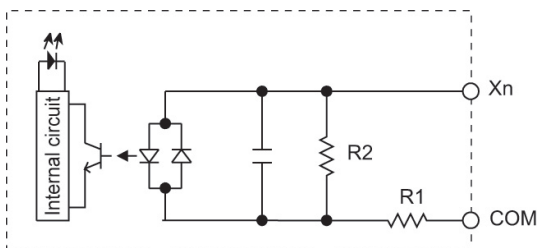
Note) This specification is applied when the rated input a voltage is 24 V DC and the temperature is 25°C.

Limitations on number of simultaneous input on points

Keep the number of input points per common which are simultaneously on within the following range as determined by the ambient temperature.



Circuit diagram



R1=9.1 k Ω R2=1 k Ω

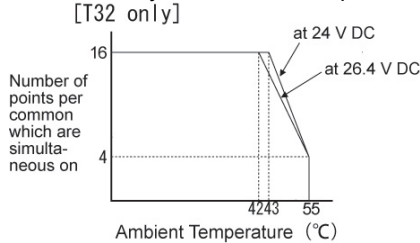
2.2.2 Output Specifications

Transistor output specifications

Item	Description	
	NPN	PNP
Insulation method	Optical coupler	
Output type	Open collector	
Rated load voltage	5 V DC to 24 V DC	24 V DC
Operating load voltage range	4.75 V DC to 26.4 V DC	21.6 V DC to 26.4 V DC
Max. load current	0.2A	
Output points per common	For C16: 8 points/common For C32, T32, F32: 16 points/common	
Off state leakage current	1 μ A or less	
On state voltage drop	0.2 V DC or less	
Response time	OFF \rightarrow ON	20 μ s or less (Load current: 5 mA or more) 0.1 ms or less (Load current: 0.5 mA or more)
	ON \rightarrow OFF	40 μ s or less (Load current: 5 mA or more) 0.2 ms or less (Load current: 0.5 mA or more)
External power supply (+ and - terminals)	Voltage	21.6V DC to 26.4V DC
	Current	C16: 30 mA or less C32, T32, F32: 60 mA or less
Surge absorber	Zener diode	
Operating mode indicator	LED display	

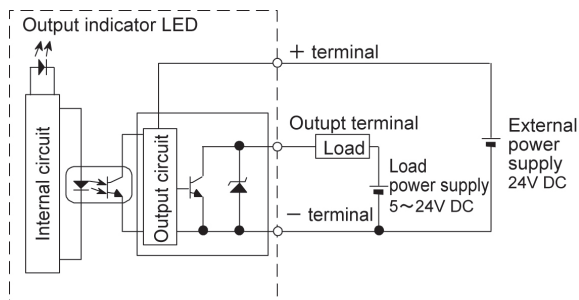
Limitations on number of simultaneous output on points

Keep the number of output points per common which are simultaneously on within the following range as determined by the ambient temperature.

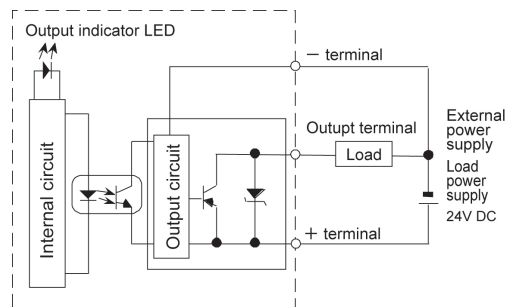


Circuit diagram

[NPN]



[PNP]

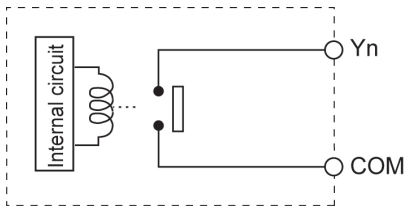


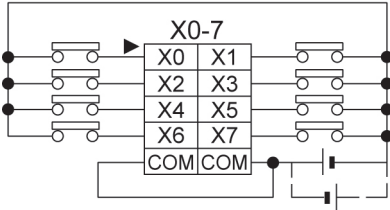
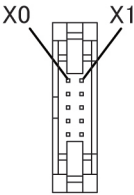
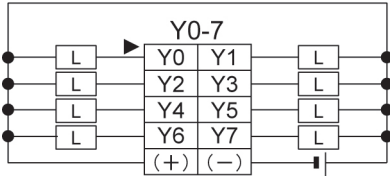
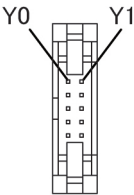
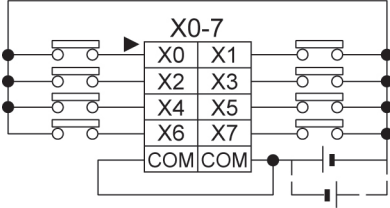
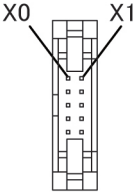
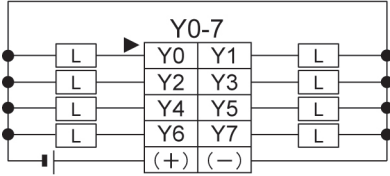
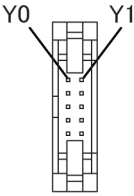
Relay output specifications (C10/C14)

Item	Description	
Output type	1a output	
Rated control capacity	2 A 250 V AC, 2 A 30 V DC (4.5 A or less/common) ^{Note)}	
Output points per common	C10:2 points/common+1 point/common+1 point/common C14:4 points/common+1 point/common+1 point/common	
Response time	OFF → ON	Approx. 10 ms
	ON → OFF	Approx. 8 ms
Lifetime	Mechanical	Min. 20,000,000 operations (Switching rate: 180 times/min.)
	Electrical	Min. 100,000 operations (Switching rate: 20 times/min. at rated control capacity)
Surge absorber	None	
Operating mode indicator	LED display	

Note) Resistance load

Circuit diagram



Model No.	Terminal layout diagrams
C16T C16CT C16MT	<p data-bbox="305 282 364 311">Input</p>   <p data-bbox="305 575 385 604">Output</p>   <p data-bbox="724 792 950 817">(Front view of connector)</p> <p data-bbox="305 846 1119 909">Note: Two COM terminals of the input circuit are connected internally.</p>
C16P C16CP C16MP	<p data-bbox="305 973 364 1002">Input</p>   <p data-bbox="305 1267 385 1296">Output</p>   <p data-bbox="724 1483 950 1508">(Front view of connector)</p> <p data-bbox="305 1537 1119 1601">Note: Two COM terminals of the input circuit are connected internally.</p>