

Chapter 7 I/O Module

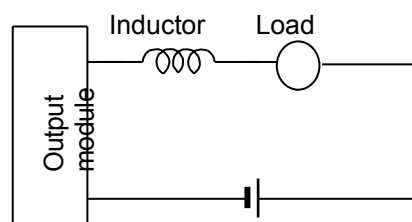
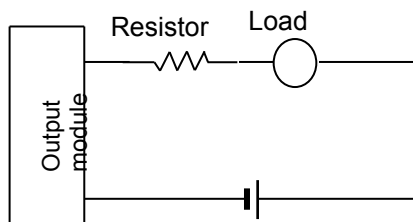
7.1 Notice in Selecting Module

Here describes the notices when selecting digital I/O module used for XG series.

- 1) For the type of digital input, there are two types such as current sink input and current source input.

For DC input module, as the wiring method of external input power varies according to such input type, consider the specification of input connecting device when selecting.

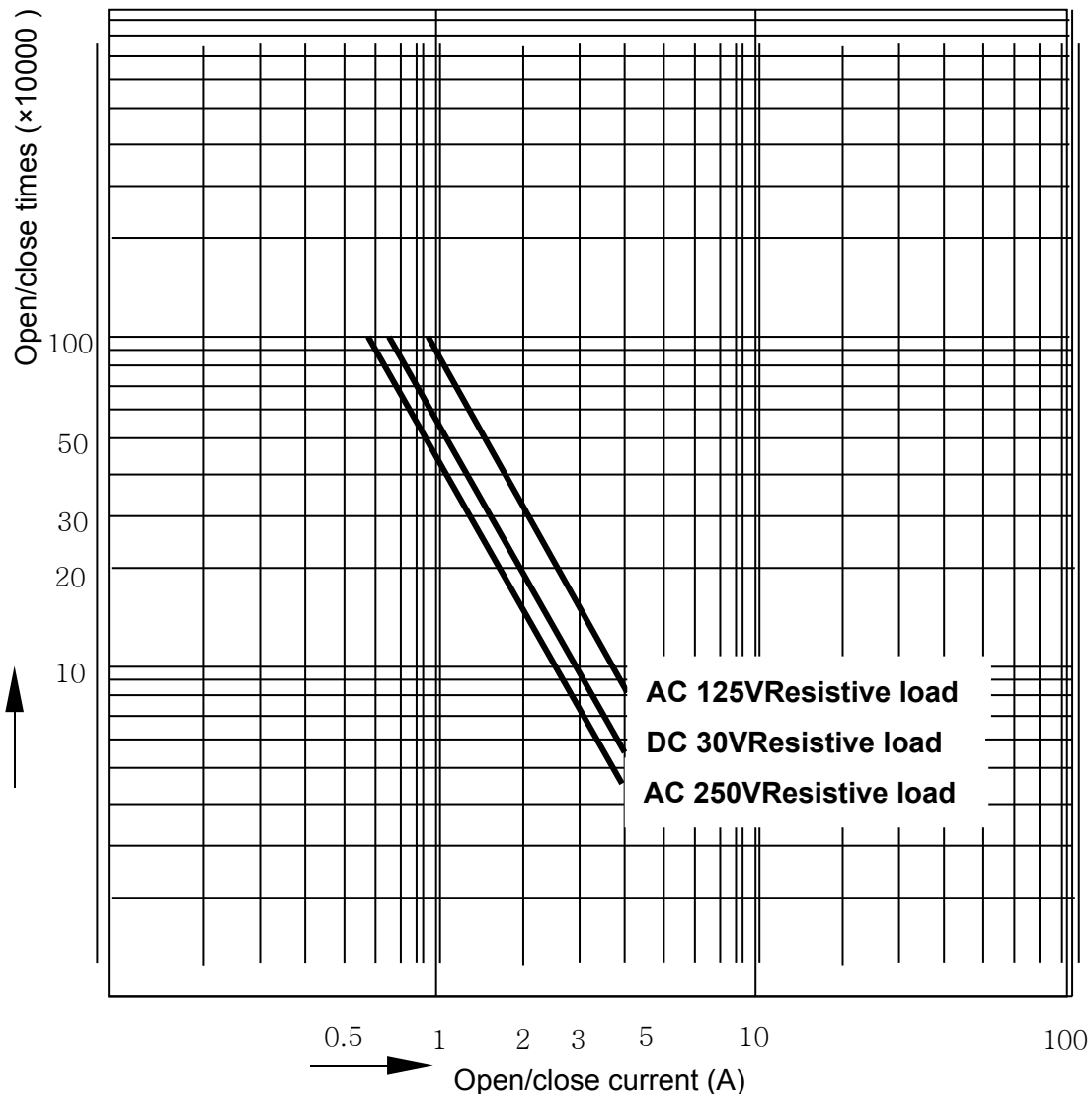
- 2) Max. simultaneous input point depends on the module type. It is subject to input voltage, ambient temperature. Review the specification of input module to apply before using.
- 3) In case that the response of high speed input is required, use Interrupt module.
But, Interrupt module is limited to use by installing only one module for one CPU module.
- 4) In case that open/close frequency is high or it is used for conductive load open/close, use Transistor output module or triac output module as the durability of Relay Output Module shall be reduced.
- 5) For output module to run the conductive (L) load, max. open/close frequency should be used by 1second On, 1 second Off.
- 6) For output module, in case that counter timer using DC/DC Converter as a load was used, Inrush current may flow in a certain cycle when it is ON or during operation. In this case, if average current is selected, it may cause the failure. Accordingly, if the previous load was used, it is recommended to connect resistor or inductor to the load in serial in order to reduce the impact of Inrush current or use the large module having a max. load current value.



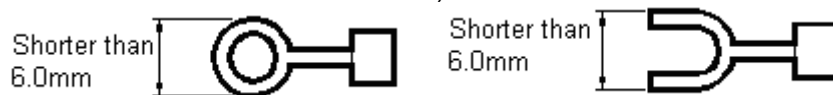
- 7) For output module, fuse is not possible to change. This is to prevent of burnout of external wiring in case of short circuit of module output. This may not protect output module. In case that output module is destroyed in error mode except short circuit, fuse may not work.

8) Relay life of Relay output module is shown as below.

Max. life of Relay used in Relay output module is shown as below.



9) XGK terminal block is not allowed to use the compressed terminal attached with sleeve.
The proper compressed terminal to connect to terminal blocks is as below.
(JOR 1.25-3: DAEDONG Electronic Ltd.)



10) The cable size connected to terminal block should be twisted pair 0.3~0.75mm², thickness less than 2.8mm. As cable varies the allowable current by insulation thickness, cares should be taken.

11) The attachment torque of fixed screw of module and the screw of terminal block should be within the range as below.

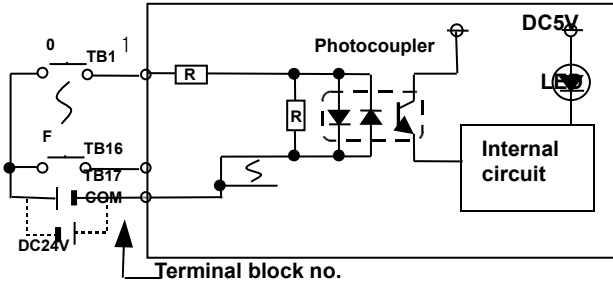
Attachment part	Attachment Torque range
I/O module terminal block screw (M3 screw)	42 ~ 58 N·cm
I/O module terminal block fixed screw (M3 screw)	66 ~ 89 N·cm

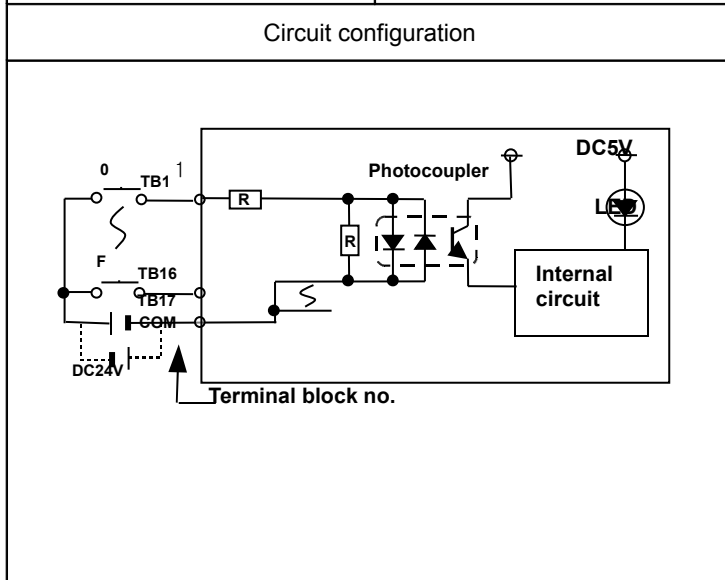
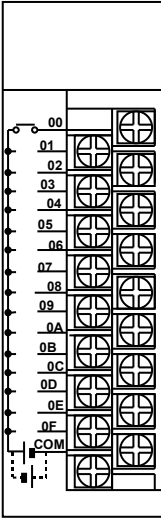
12) Transistor output module (XGQ-TR4A, XGQ-TR8A) has Thermal Protector Function.
Thermal Protector Function is the protection function for overload and overheats.

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7.2.2 16 point DC24V Input Module (Source/Sink Type)

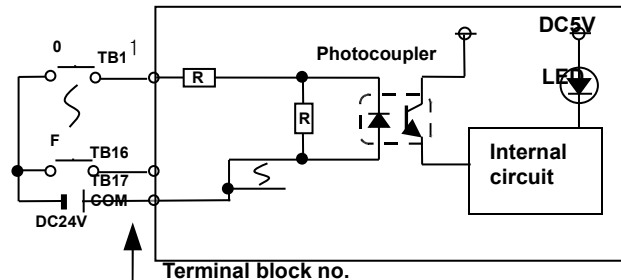
Model		DC input module
Specification		XGI-D22A
Input point		16 point
Insulation method		Photo coupler insulation
Rated input voltage		DC24V
Rated input current		About 4 mA
Operation voltage range		DC20.4~28.8V (ripple rate < 5%)
Input Derating		None
On Voltage/Current		DC19V or higher / 3 mA or higher
Off Voltage/Current		DC11V or lower / 1.7 mA or lower
Input resistance		About 5.6 kΩ
Response time	Off → On	1ms/3ms/5ms/10ms/20ms/70ms/100ms (set by CPU parameter) Default:3ms
	On → Off	1ms/3ms/5ms/10ms/20ms/70ms/100ms (set by CPU parameter) Default:3ms
Insulation pressure		AC560V rms/3 Cycle (altitude 2000m)
Insulation resistance		10MΩ or more by megger
Common Method		16 point / COM
Proper cable size		Twisted pair 0.3~0.75mm ² (external diameter 2.8mm or less)
Proper compressed terminal		R1.25-3 (not allowed to use a sleeve attached compressed terminal.)
Current consumption (mA)		30mA
Operation indicator		Input On, LED On
External connection method		18 point terminal block connector (M3 X 6 screw)
Weight		0.12 kg

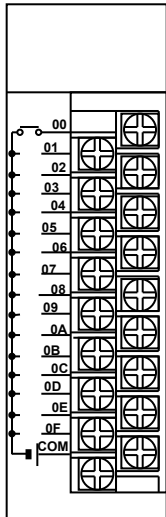
Circuit configuration	Terminal block	Contact
	TB1	P0
	TB2	P1
	TB3	P2
	TB4	P3
	TB5	P4
	TB6	P5
	TB7	P6
	TB8	P7
	TB9	P8
	TB10	P9
	TB11	PA
	TB12	PB
	TB13	PC
	TB14	PD
	TB15	PE
	TB16	PF
	TB17	COM
	TB18	NC



7.2.3 16 point DC24V Input Module (Source Type)

Model		DC input module
Specification		XGI-D22B
Input point		16 point
Insulation method		Photo coupler insulation
Rated input voltage		DC24V
Rated input current		About 4 mA
Operation voltage range		DC20.4~28.8V (ripple rate < 5%)
Input Derating		None
On Voltage/Current		DC19V or higher / 3 mA or higher
Off Voltage/Current		DC11V or lower / 1.7 mA or lower
Input resistance		About 5.6 kΩ
Response time	Off → On	1ms/3ms/5ms/10ms/20ms/70ms/100ms (set by CPU parameter) Default:3ms
	On → Off	1ms/3ms/5ms/10ms/20ms/70ms/100ms (set by CPU parameter) Default:3ms
Insulation pressure		AC560V rms/3 Cycle (altitude 2000m)
Insulation resistance		10MΩ or more by megger
Common Method		16 point / COM
Proper cable size		Twisted pair 0.3~0.75mm ² (external diameter 2.8mm or less)
Proper compressed terminal		R1.25-3 (not allowed to use a sleeve attached compressed terminal.)
Current consumption (mA)		30mA
Operation indicator		Input On, LED On
External connection method		18 point terminal block connector (M3 X 6screw)
Weight		0.12 kg

Circuit configuration	Terminal block	Contact
	TB1	P0
	TB2	P1
	TB3	P2
	TB4	P3
	TB5	P4
	TB6	P5
	TB7	P6
	TB8	P7
	TB9	P8
	TB10	P9
	TB11	PA
	TB12	PB
	TB13	PC
	TB14	PD
	TB15	PE
	TB16	PF
	TB17	COM
	TB18	NC



7.2.4 32 point DC24V Input Module (Source/Sink Type)

Model		DC input module	
Specification		XGI-D24A	
Input point		32 point	
Insulation method		Photo coupler insulation	
Rated input voltage		DC24V	
Rated input current		About 4 mA	
Operation voltage range		DC20.4~28.8V (ripple rate < 5%)	
Input Derating		Refer to the below Derating diagram.	
On Voltage/Current		DC19V or higher / 3 mA or higher	
Off Voltage/Current		DC11V or lower / 1.7 mA or lower	
Input resistance		About 5.6 kΩ	
Response time	Off → On	1ms/3ms/5ms/10ms/20ms/70ms/100ms (set by CPU parameter) Default:3ms	
	On → Off	1ms/3ms/5ms/10ms/20ms/70ms/100ms (set by CPU parameter) Default:3ms	
Insulation pressure		AC560V rms/3 Cycle (altitude 2000m)	
Insulation resistance		10MΩ or more by megger	
Common Method		32 point / COM	
Proper cable size		0.3mm ²	
Current consumption (mA)		50mA	
Operation indicator		Input On, LED On	
External connection method		40 point connector	
Weight		0.1 kg	

Circuit configuration		No	Cont act	No	Cont act
Connector no. On rate (%) Ambient temperature		B20	P00	A20	P10
		B19	P01	A19	P11
		B18	P02	A18	P12
		B17	P03	A17	P13
		B16	P04	A16	P14
		B15	P05	A15	P15
		B14	P06	A14	P16
		B13	P07	A13	P17
		B12	P08	A12	P18
		B11	P09	A11	P19
		B10	P0A	A10	P1A
		B09	P0B	A09	P1B
		B08	P0C	A08	P1C
		B07	P0D	A07	P1D
		B06	P0E	A06	P1E
		B05	P0F	A05	P1F
		B04	NC	A04	NC
		B03	NC	A03	NC
		B02	COM	A02	COM
		B01	COM	A01	COM

7.2.5 32 point DC24V Input Module (Source Type)

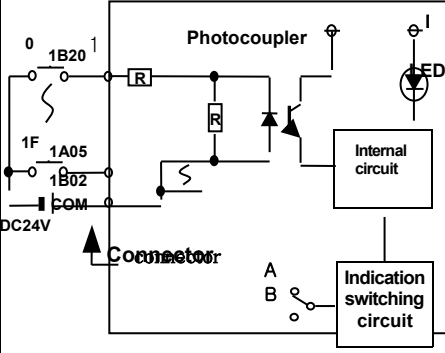
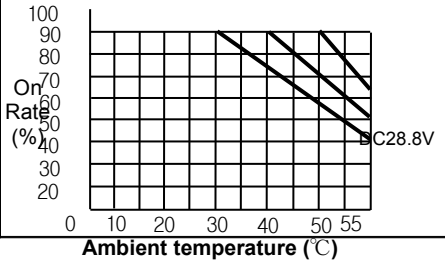
Model		DC input module	
Specification		XGI-D24B	
Input point		32 point	
Insulation method		Photo coupler insulation	
Rated input voltage		DC24V	
Rated input current		About 4 mA	
Operation voltage range		DC20.4~28.8V (ripple rate < 5%)	
Input Derating		Refer to the below Derating diagram.	
On Voltage/Current		DC19V or higher / 3 mA or higher	
Off Voltage/Current		DC11V or lower / 1.7 mA or lower	
Input resistance		About 5.6 kΩ	
Response time	Off → On	1ms/3ms/5ms/10ms/20ms/70ms/100ms (set by CPU parameter) Default:3ms	
	On → Off	1ms/3ms/5ms/10ms/20ms/70ms/100ms (set by CPU parameter) Default:3ms	
Insulation pressure		AC560V rms/3 Cycle (altitude 2000m)	
Insulation resistance		10MΩ or more by megger	
Common Method		32 point / COM	
Proper cable size		0.3mm ²	
Current consumption (mA)		50mA	
Operation indicator		Input On, LED On	
External connection method		40 point connector	
Weight		0.1 kg	

Circuit configuration		No	Cont act	No	Cont act	B20 A20 B19 A19 B18 A18 B17 A17 B16 A16 B15 A15 B14 A14 B13 A13 B12 A12 B11 A11 B10 A10 B09 A09 B08 A08 B07 A07 B06 A06 B05 A05 B04 A04 B03 A03 B02 A02 B01 A01
Connector no. On rate (%) Ambient temperature		B20	P00	A20	P10	
		B19	P01	A19	P11	
		B18	P02	A18	P12	
		B17	P03	A17	P13	
		B16	P04	A16	P14	
		B15	P05	A15	P15	
		B14	P06	A14	P16	
		B13	P07	A13	P17	
		B12	P08	A12	P18	
		B11	P09	A11	P19	
		B10	P0A	A10	P1A	
		B09	P0B	A09	P1B	
		B08	P0C	A08	P1C	
		B07	P0D	A07	P1D	
		B06	P0E	A06	P1E	
		B05	P0F	A05	P1F	
		B04	NC	A04	NC	
		B03	NC	A03	NC	
		B02	COM	A02	COM	
		B01	COM	A01	COM	

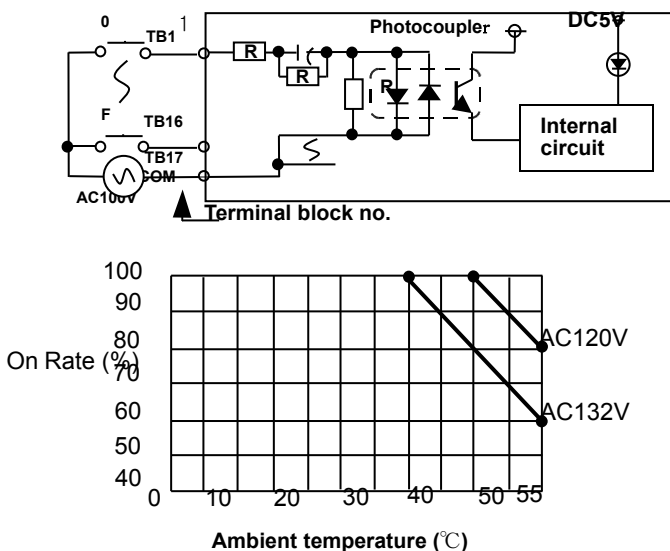
7.2.6 64 point DC24V Input Module (Source/Sink Type)

Specification		Model	DC input module																																																																																																																																																																																							
			XGI-D28A																																																																																																																																																																																							
Input point			64 point																																																																																																																																																																																							
Insulation method			Photo coupler insulation																																																																																																																																																																																							
Rated input voltage			DC24V																																																																																																																																																																																							
Rated input current			About 4 mA																																																																																																																																																																																							
Operation voltage range			DC20.4~28.8V (ripple rate < 5%)																																																																																																																																																																																							
Input Derating			Refer to the below Derating diagram.																																																																																																																																																																																							
On Voltage/Current			DC19V or higher / 3 mA or higher																																																																																																																																																																																							
Off Voltage/Current			DC11V or lower / 1.7 mA or lower																																																																																																																																																																																							
Input resistance			About 5.6 kΩ																																																																																																																																																																																							
Response time	Off → On		1ms/3ms/5ms/10ms/20ms/70ms/100ms (set by CPU parameter) Default:3ms																																																																																																																																																																																							
	On → Off		1ms/3ms/5ms/10ms/20ms/70ms/100ms (set by CPU parameter) Default:3ms																																																																																																																																																																																							
Insulation pressure			AC560V rms/3 Cycle (altitude 2000m)																																																																																																																																																																																							
Insulation resistance			10MΩ or more by megger																																																																																																																																																																																							
Common Method			32 point / COM																																																																																																																																																																																							
Proper cable size			0.3mm ²																																																																																																																																																																																							
Current consumption (mA)			60mA																																																																																																																																																																																							
Operation indicator			Input On, LED On (32 point LED On by switch operation)																																																																																																																																																																																							
External connection method			40 point connector×2ea																																																																																																																																																																																							
Weight			0.15 kg																																																																																																																																																																																							
Circuit configuration			<table><tr><th>No</th><th>Cont act</th><th>No</th><th>Cont act</th><th>No</th><th>Cont act</th><th>No</th><th>Cont act</th></tr><tr><td>1B20</td><td>P00</td><td>1A20</td><td>P10</td><td>2B20</td><td>P20</td><td>2A20</td><td>P30</td></tr><tr><td>1B19</td><td>P01</td><td>1A19</td><td>P11</td><td>2B19</td><td>P21</td><td>2A19</td><td>P31</td></tr><tr><td>1B18</td><td>P02</td><td>1A18</td><td>P12</td><td>2B18</td><td>P22</td><td>2A18</td><td>P32</td></tr><tr><td>1B17</td><td>P03</td><td>1A17</td><td>P13</td><td>2B17</td><td>P23</td><td>2A17</td><td>P33</td></tr><tr><td>1B16</td><td>P04</td><td>1A16</td><td>P14</td><td>2B16</td><td>P24</td><td>2A16</td><td>P34</td></tr><tr><td>1B15</td><td>P05</td><td>1A15</td><td>P15</td><td>2B15</td><td>P25</td><td>2A15</td><td>P35</td></tr><tr><td>1B14</td><td>P06</td><td>1A14</td><td>P16</td><td>2B14</td><td>P26</td><td>2A14</td><td>P36</td></tr><tr><td>1B13</td><td>P07</td><td>1A13</td><td>P17</td><td>2B13</td><td>P27</td><td>2A13</td><td>P37</td></tr><tr><td>1B12</td><td>P08</td><td>1A12</td><td>P18</td><td>2B12</td><td>P28</td><td>2A12</td><td>P38</td></tr><tr><td>1B11</td><td>P09</td><td>1A11</td><td>P19</td><td>2B11</td><td>P29</td><td>2A11</td><td>P39</td></tr><tr><td>1B10</td><td>P0A</td><td>1A10</td><td>P1A</td><td>2B10</td><td>P2A</td><td>2A10</td><td>P3A</td></tr><tr><td>1B09</td><td>P0B</td><td>1A09</td><td>P1B</td><td>2B09</td><td>P2B</td><td>2A09</td><td>P3B</td></tr><tr><td>1B08</td><td>P0C</td><td>1A08</td><td>P1C</td><td>2B08</td><td>P2C</td><td>2A08</td><td>P3C</td></tr><tr><td>1B07</td><td>P0D</td><td>1A07</td><td>P1D</td><td>2B07</td><td>P2D</td><td>2A07</td><td>P3D</td></tr><tr><td>1B06</td><td>P0E</td><td>1A06</td><td>P1E</td><td>2B06</td><td>P2E</td><td>2A06</td><td>P3E</td></tr><tr><td>1B05</td><td>P0F</td><td>1A05</td><td>P1F</td><td>2B05</td><td>P2F</td><td>2A05</td><td>P3F</td></tr><tr><td>1B04</td><td>NC</td><td>1A04</td><td>NC</td><td>2B04</td><td>NC</td><td>2A04</td><td>NC</td></tr><tr><td>1B03</td><td>NC</td><td>1A03</td><td>NC</td><td>2B03</td><td>NC</td><td>2A03</td><td>NC</td></tr><tr><td>1B02</td><td>COM</td><td>1A02</td><td>NC</td><td>2B02</td><td>COM</td><td>2A02</td><td>NC</td></tr><tr><td>1B01</td><td>COM</td><td>1A01</td><td>NC</td><td>2B01</td><td>COM</td><td>2A01</td><td>NC</td></tr></table>																No	Cont act	No	Cont act	No	Cont act	No	Cont act	1B20	P00	1A20	P10	2B20	P20	2A20	P30	1B19	P01	1A19	P11	2B19	P21	2A19	P31	1B18	P02	1A18	P12	2B18	P22	2A18	P32	1B17	P03	1A17	P13	2B17	P23	2A17	P33	1B16	P04	1A16	P14	2B16	P24	2A16	P34	1B15	P05	1A15	P15	2B15	P25	2A15	P35	1B14	P06	1A14	P16	2B14	P26	2A14	P36	1B13	P07	1A13	P17	2B13	P27	2A13	P37	1B12	P08	1A12	P18	2B12	P28	2A12	P38	1B11	P09	1A11	P19	2B11	P29	2A11	P39	1B10	P0A	1A10	P1A	2B10	P2A	2A10	P3A	1B09	P0B	1A09	P1B	2B09	P2B	2A09	P3B	1B08	P0C	1A08	P1C	2B08	P2C	2A08	P3C	1B07	P0D	1A07	P1D	2B07	P2D	2A07	P3D	1B06	P0E	1A06	P1E	2B06	P2E	2A06	P3E	1B05	P0F	1A05	P1F	2B05	P2F	2A05	P3F	1B04	NC	1A04	NC	2B04	NC	2A04	NC	1B03	NC	1A03	NC	2B03	NC	2A03	NC	1B02	COM	1A02	NC	2B02	COM	2A02	NC	1B01	COM	1A01	NC	2B01	COM	2A01	NC
No	Cont act	No	Cont act	No	Cont act	No	Cont act																																																																																																																																																																																			
1B20	P00	1A20	P10	2B20	P20	2A20	P30																																																																																																																																																																																			
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1B18	P02	1A18	P12	2B18	P22	2A18	P32																																																																																																																																																																																			
1B17	P03	1A17	P13	2B17	P23	2A17	P33																																																																																																																																																																																			
1B16	P04	1A16	P14	2B16	P24	2A16	P34																																																																																																																																																																																			
1B15	P05	1A15	P15	2B15	P25	2A15	P35																																																																																																																																																																																			
1B14	P06	1A14	P16	2B14	P26	2A14	P36																																																																																																																																																																																			
1B13	P07	1A13	P17	2B13	P27	2A13	P37																																																																																																																																																																																			
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1B11	P09	1A11	P19	2B11	P29	2A11	P39																																																																																																																																																																																			
1B10	P0A	1A10	P1A	2B10	P2A	2A10	P3A																																																																																																																																																																																			
1B09	P0B	1A09	P1B	2B09	P2B	2A09	P3B																																																																																																																																																																																			
1B08	P0C	1A08	P1C	2B08	P2C	2A08	P3C																																																																																																																																																																																			
1B07	P0D	1A07	P1D	2B07	P2D	2A07	P3D																																																																																																																																																																																			
1B06	P0E	1A06	P1E	2B06	P2E	2A06	P3E																																																																																																																																																																																			
1B05	P0F	1A05	P1F	2B05	P2F	2A05	P3F																																																																																																																																																																																			
1B04	NC	1A04	NC	2B04	NC	2A04	NC																																																																																																																																																																																			
1B03	NC	1A03	NC	2B03	NC	2A03	NC																																																																																																																																																																																			
1B02	COM	1A02	NC	2B02	COM	2A02	NC																																																																																																																																																																																			
1B01	COM	1A01	NC	2B01	COM	2A01	NC																																																																																																																																																																																			
A: P00~P1F indication B: P20~P3F indication																																																																																																																																																																																										

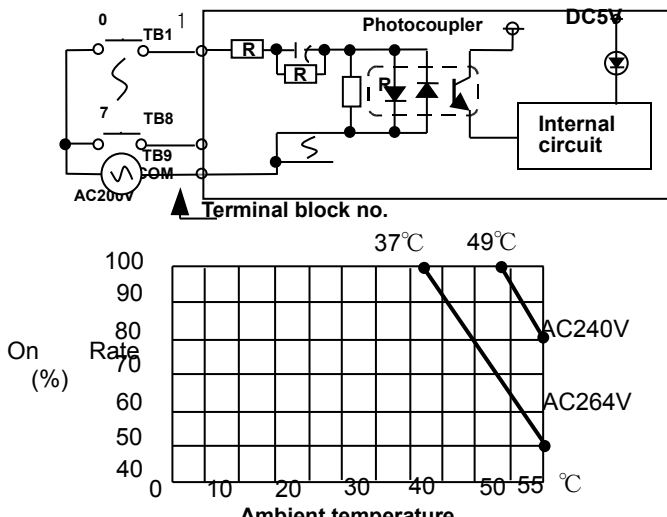
7.2.7 64 point DC24V Input Module (Source type)

Model		DC input module							
Specification		XGI-D28B							
Input point		64 point							
Insulation method		Photo coupler insulation							
Rated input voltage		DC24V							
Rated input current		About 4 mA							
Operation voltage range		DC20.4~28.8V (ripple rate < 5%)							
Input Derating		Refer to the below Derating diagram.							
On Voltage/Current		DC19V or higher / 3 mA or higher							
Off Voltage/Current		DC11V or lower / 1.7 mA or lower							
Input resistance		About 5.6 kΩ							
Response time	Off → On	1ms/3ms/5ms/10ms/20ms/70ms/100ms (set by CPU parameter) Default:3ms							
	On → Off	1ms/3ms/5ms/10ms/20ms/70ms/100ms (set by CPU parameter) Default:3ms							
Insulation pressure		AC560V rms/3 Cycle (altitude 2000m)							
Insulation resistance		10MΩ or more by megger							
Common Method		32 point / COM							
Proper cable size		0.3mm ²							
Current consumption (mA)		60mA							
Operation indicator		Input On, LED On (32 point LED On by switch operation)							
External connection method		40 point connector×2ea							
Weight		0.15 kg							
Circuit configuration		No	Cont act	No	Cont act	No	Cont act	No	Cont act
 A: P00~P1F indication B: P20~P3F indication		1B20	P00	1A20	P10	2B20	P20	2A20	P30
		1B19	P01	1A19	P11	2B19	P21	2A19	P31
		1B18	P02	1A18	P12	2B18	P22	2A18	P32
		1B17	P03	1A17	P13	2B17	P23	2A17	P33
		1B16	P04	1A16	P14	2B16	P24	2A16	P34
		1B15	P05	1A15	P15	2B15	P25	2A15	P35
		1B14	P06	1A14	P16	2B14	P26	2A14	P36
		1B13	P07	1A13	P17	2B13	P27	2A13	P37
		1B12	P08	1A12	P18	2B12	P28	2A12	P38
		1B11	P09	1A11	P19	2B11	P29	2A11	P39
		1B10	P0A	1A10	P1A	2B10	P2A	2A10	P3A
		1B09	P0B	1A09	P1B	2B09	P2B	2A09	P3B
		1B08	P0C	1A08	P1C	2B08	P2C	2A08	P3C
		1B07	P0D	1A07	P1D	2B07	P2D	2A07	P3D
		1B06	P0E	1A06	P1E	2B06	P2E	2A06	P3E
		1B05	P0F	1A05	P1F	2B05	P2F	2A05	P3F
 On Rate (%) Ambient temperature (°C)		1B04	NC	1A04	NC	2B04	NC	2A04	NC
		1B03	NC	1A03	NC	2B03	NC	2A03	NC
		1B02	COM	1A02	NC	2B02	COM	2A02	NC
		1B01	COM	1A01	NC	2B01	COM	2A01	NC
		B20		A20		B19		A19	
		B18		A18		B17		A17	
		B16		A16		B15		A15	
		B14		A14		B13		A13	
		B12		A12		B11		A11	
		B10		A10		B09		A09	
		B08		A08		B07		A07	
		B06		A06		B05		A05	
		B04		A04		B03		A03	
		B02		A02		B01		A01	

7.2.8 16 point AC110V Input Module

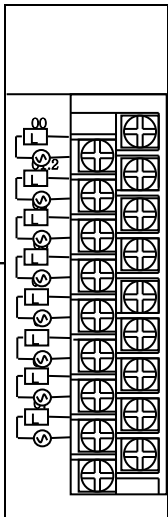
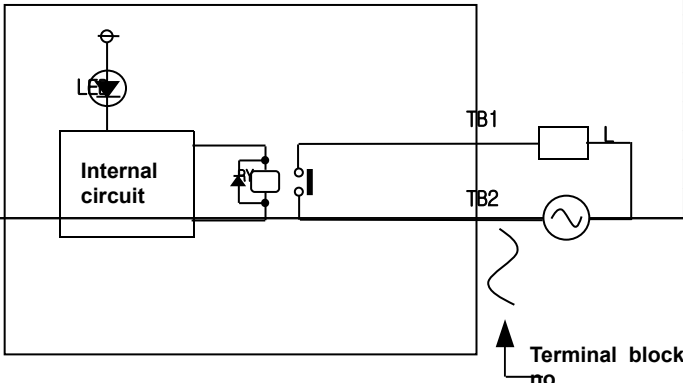
Model		AC input module	
Specification		XGI-A12A	
Input point		16 point	
Insulation method		Photo coupler insulation	
Rated input voltage		AC100-120V(+10/-15%) 50/60Hz(±3Hz) (distortion rate < 5%)	
Rated input current		About 8 mA (AC100,60Hz), About 7 mA (AC100, 50Hz)	
Inrush current		Max. 200mA 1ms (AC132V)	
Input Derating		Refer to the below Derating diagram.	
On Voltage/Current		AC80V or higher / 5 mA or higher (50Hz, 60Hz)	
Off Voltage/Current		AC30V or lower / 1 mA or lower (50Hz, 60Hz)	
Input resistance		About 12 kΩ(60Hz), About 15 kΩ(50Hz)	
Response time	Off → On	15 ms or less (AC100V 50Hz, 60Hz)	
	On → Off	25 ms or less (AC100V 50Hz, 60Hz)	
Insulation pressure		AC1780V rms/3 Cycle (altitude 2000m)	
Insulation resistance		10MΩ or more by megger	
Common Method		16 point / COM	
Proper cable size		Twisted pair 0.3~0.75mm ² (external diameter 2.8mm or less)	
Proper compressed terminal		R1.25-3 (not allowed to use a sleeve attached compressed terminal.)	
Current consumption (mA)		30mA	
Operation indicator		Input On, LED On	
External connection method		18 point terminal block connector (M3 X 6screw)	
Weight		0.13 kg	
Circuit configuration		Terminal block	Contact
 Terminal block no. On Rate (%) Ambient temperature (°C) AC120V AC132V		1 TB	P0
		LED TB2	P1
		TB3	P2
		TB4	P3
		TB5	P4
		TB6	P5
		TB7	P6
		TB8	P7
		TB9	P8
		TB10	P9
		TB11	PA
		TB12	PB
		TB13	PC
		TB14	PD
		TB15	PE
		TB16	PF
		TB17	COM
		TB18	NC

7.2.9 8 point AC220V input module

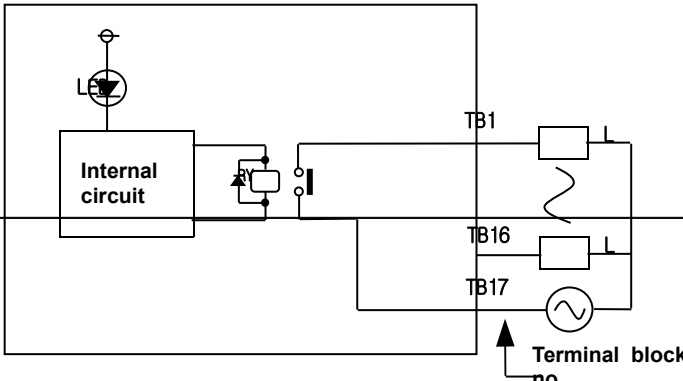
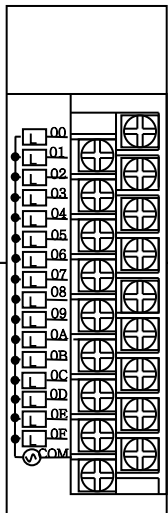
Model		AC input module	
Specification		XGI-A21A	
Input point		8 point	
Insulation method		Photo coupler insulation	
Rated input voltage		AC100-240V(+10/-15%) 50/60Hz(±3Hz) (distortion rate 5%)	
Rated input current		About 17 mA (AC200,60Hz), About 14 mA (AC200, 50Hz)	
Inrush current		Max.500mA 1ms below (AC264V)	
Input Derating		Refer to the below Derating diagram.	
On Voltage/Current		AC80V or higher / 5 mA or higher (50Hz, 60Hz)	
Off Voltage/Current		AC30V or lower / 1 mA or lower (50Hz, 60Hz)	
Input resistance		About 12 kΩ(60Hz), About 15 kΩ(50Hz)	
Response time	Off → On	15 ms or less (AC200V 50Hz, 60Hz)	
	On → Off	25 ms or less (AC200V 50Hz, 60Hz)	
Insulation pressure		AC2830V rms/3 Cycle (altitude 2000m)	
Insulation resistance		10MΩ or more by megger	
Common Method		8 point / COM	
Proper cable size		Twisted pair 0.3~0.75mm ² (external diameter 2.8mm or less)	
Proper compressed terminal		R1.25-3 (not allowed to use a sleeve attached compressed terminal.)	
Current consumption (mA)		20mA	
Operation indicator		Input On, LED On	
External connection method		9 point terminal block connector (M3 X 6screw)	
Weight		0.13 kg	
Circuit configuration		Terminal block	Contact
 Terminal block no. On Rate (%) Ambient temperature 37°C 49°C AC240V AC264V LED		TB1	P0
		TB2	P1
		TB3	P2
		TB4	P3
		TB5	P4
		TB6	P5
		TB7	P6
		TB8	P7
		TB9	COM

7.3 Digital Output Module Specification

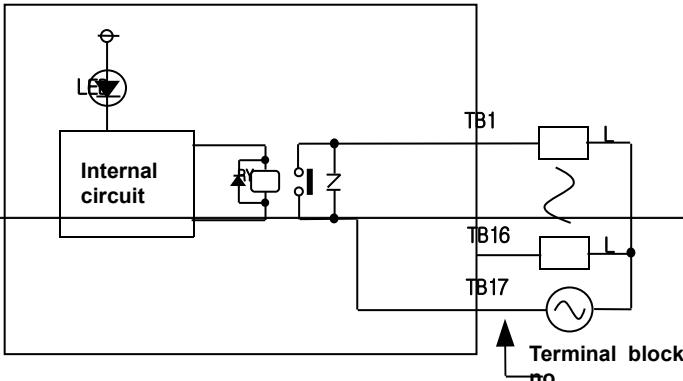
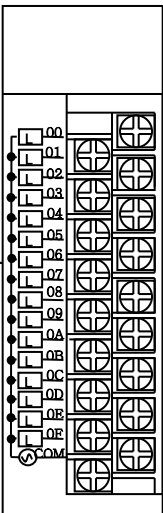
7.3.1 8 point Relay Output Module

Model Specification		Relay Output Module		
		XGQ-RY1A		
Output point		8 point		
Insulation method		Relay insulation		
Rated load voltage/current		DC24V 2A(resistive load) / AC220V 2A(COS Ψ = 1)		
Min. load voltage/current		DC5V / 1mA		
Max. load voltage/current		AC250V, DC125V		
Off leakage current		0.1mA (AC220V, 60Hz)		
Max. on/off frequency		3,600 times/hr		
Surge absorber		None		
Service life	Mechanical	20 millions times or more		
	Electrical	Rated load voltage/current 100,000 times or more		
		AC200V / 1.5A, AC240V / 1A (COS Ψ = 0.7) 100,000 times or more		
		AC200V / 1A, AC240V / 0.5A (COS Ψ = 0.35) 100,000 times or more		
Response time	Off $\rightarrow$ On	10 ms or less		
	On $\rightarrow$ Off	12 ms or less		
Common method		1 point / 1COM (independent contact)		
Current consumption		260mA (when all point On)		
Operation indicator		Output On, LED On		
External connection method		18 point terminal block connector (M3 X 6screw)		
Weight		0.13kg		
Circuit configuration		Terminal block	Contact	
		TB1	P0	
		TB2	COM	
		TB3	P1	
		TB4	COM	
		TB5	P2	
		TB6	COM	
		TB7	P3	
		TB8	COM	
		TB9	P4	
		TB10	COM	
		TB11	P5	
		TB12	COM	
		TB13	P6	
		TB14	COM	
		TB15	P7	
		TB16	COM	
		TB17	NC	
		TB18	NC	

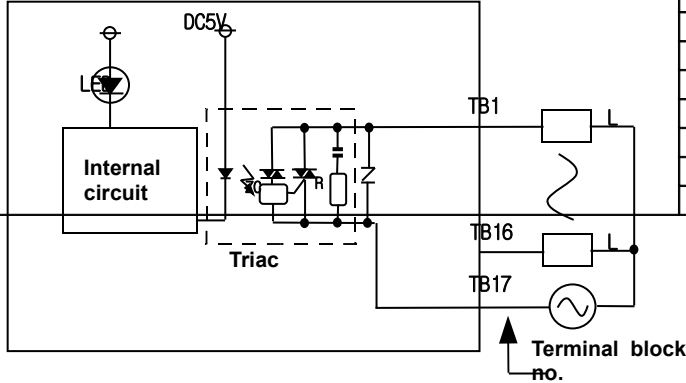
7.3.2 16 point Relay Output Module

Model		Relay Output Module																																						
Specification		XGQ-RY2A																																						
Output point		16 point																																						
Insulation method		Relay insulation																																						
Rated load voltage/current		DC24V 2A(resistive load) / AC220V 2A(COSΨ = 1)																																						
Min. load voltage/current		DC5V / 1mA																																						
Max. load voltage/current		AC250V, DC125V																																						
Off leakage current		0.1mA (AC220V, 60Hz)																																						
Max. on/off frequency		3,600times/hr																																						
Surge absorber		None																																						
Service life	Mechanical	20 million times or more																																						
	Electrical	Rated load voltage/current 100,000 times or more																																						
		AC200V / 1.5A, AC240V / 1A (COSΨ = 0.7) 100,000 times or more																																						
		AC200V / 1A, AC240V / 0.5A (COSΨ = 0.35) 100,000 times or more																																						
DC24V / 1A, DC100V / 0.1A (L / R = 7ms) 100,000 times or more																																								
Response time	Off → On	10 ms or less																																						
	On → Off	12 ms or less																																						
Common method		16 point / 1COM																																						
Current consumption		500mA (when all points On)																																						
Operation indicator		Output On, LED On																																						
External connection method		18 point terminal block connector (M3 X 6screw)																																						
Weight		0.17kg																																						
Circuit configuration		<table><tr><th>Terminal block</th><th>Contact</th></tr><tr><td>TB1</td><td>P0</td></tr><tr><td>TB2</td><td>P1</td></tr><tr><td>TB3</td><td>P2</td></tr><tr><td>TB4</td><td>P3</td></tr><tr><td>TB5</td><td>P4</td></tr><tr><td>TB6</td><td>P5</td></tr><tr><td>TB7</td><td>P6</td></tr><tr><td>TB8</td><td>P7</td></tr><tr><td>TB9</td><td>P8</td></tr><tr><td>TB10</td><td>P9</td></tr><tr><td>TB11</td><td>PA</td></tr><tr><td>TB12</td><td>PB</td></tr><tr><td>TB13</td><td>PC</td></tr><tr><td>TB14</td><td>PD</td></tr><tr><td>TB15</td><td>PE</td></tr><tr><td>TB16</td><td>PF</td></tr><tr><td>TB17</td><td>COM</td></tr><tr><td>TB18</td><td>NC</td></tr></table>	Terminal block	Contact	TB1	P0	TB2	P1	TB3	P2	TB4	P3	TB5	P4	TB6	P5	TB7	P6	TB8	P7	TB9	P8	TB10	P9	TB11	PA	TB12	PB	TB13	PC	TB14	PD	TB15	PE	TB16	PF	TB17	COM	TB18	NC
Terminal block	Contact																																							
TB1	P0																																							
TB2	P1																																							
TB3	P2																																							
TB4	P3																																							
TB5	P4																																							
TB6	P5																																							
TB7	P6																																							
TB8	P7																																							
TB9	P8																																							
TB10	P9																																							
TB11	PA																																							
TB12	PB																																							
TB13	PC																																							
TB14	PD																																							
TB15	PE																																							
TB16	PF																																							
TB17	COM																																							
TB18	NC																																							
																																								

7.3.3 16 point Relay Output Module (Surge Absorber Type)

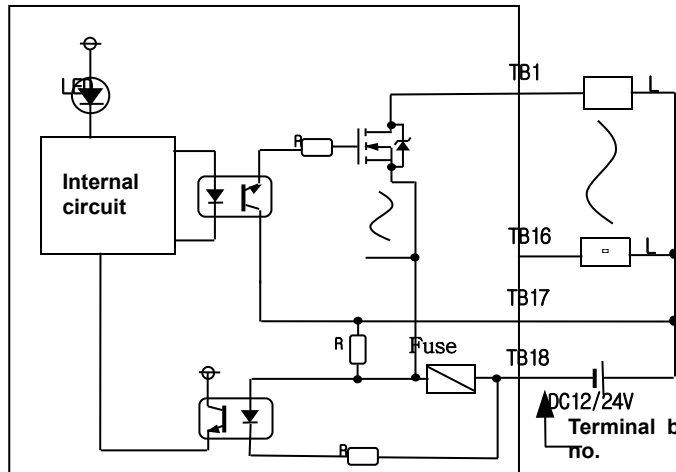
Model		Relay Output Module	
Specification		XGQ-RY2B	
Output point		16 point	
Insulation method		Relay insulation	
Rated load voltage/current		DC24V 2A(resistive load) / AC220V 2A(COSΨ = 1)	
Min. load voltage/current		DC5V / 1mA	
Max. load voltage/current		AC250V, DC125V	
Off leakage current		0.1mA (AC220V, 60Hz)	
Max. on/off frequency		3,600times/hr	
Surge absorber		Varistor (387 ~ 473V), C.R Absorber	
Service life	Mechanical	20 million times or more	
	Electrical	Rated load voltage/current 100,000 times or more	
		AC200V / 1.5A, AC240V / 1A (COSΨ = 0.7) 100,000 times or more	
		AC200V / 1A, AC240V / 0.5A (COSΨ = 0.35) 100,000 times or more	
		DC24V / 1A, DC100V / 0.1A (L / R = 7ms) 100,000 times or more	
Response time	Off → On	10 ms or less	
	On → Off	12 ms or less	
Common method		16 point / 1COM	
Current consumption		500mA (when all points On)	
Operation indicator		Output On, LED On	
External connection method		18 point terminal block connector (M3 X 6screw)	
Weight		0.19kg	
Circuit configuration		Terminal block	Contact
		TB1	P0
		TB2	P1
		TB3	P2
		TB4	P3
		TB5	P4
		TB6	P5
		TB7	P6
		TB8	P7
		TB9	P8
		TB10	P9
		TB11	PA
		TB12	PB
		TB13	PC
		TB14	PD
		TB15	PE
		TB16	PF
		TB17	COM
			

7.3.4 16 point Triac Output Module

Model		Triac Output Module	
Specification		XGQ-SS2A	
Output point		16 point	
Insulation method		Photo coupler insulation	
Rated load voltage		AC 100-240V (50 / 60 Hz)	
Max. load voltage		AC 264V	
Max. load current		0.6A / 1 point 4A / 1COM	
Min. load current		20 mA	
Off leakage current		2.5 mA (AC 220V 60 Hz)	
Max. inrush current		20A / Cycle or less	
Max. voltage drop (On)		AC 1.5V or less (2A)	
Surge absorber		Varistor (387 ~ 473V), C.R Absorber	
Response time	Off → On	1 ms or less	
	On → Off	0.5 Cycle + 1 ms or less	
Common method		16 point / 1 COM	
Current consumption		300 mA (when all points On)	
Operation indicator		Output On, LED On	
External connection method		18 point terminal block connector (M3 X 6screw)	
Weight		0.2 kg	
Circuit configuration		Terminal block	Contact
		TB1	P0
		TB2	P1
		TB3	P2
		TB4	P3
		TB5	P4
		TB6	P5
		TB7	P6
		TB8	P7
		TB9	P8
		TB10	P9
		TB11	PA
		TB12	PB
		TB13	PC
		TB14	PD
		TB15	PE
		TB16	PF
		TB17	COM
		TB18	NC

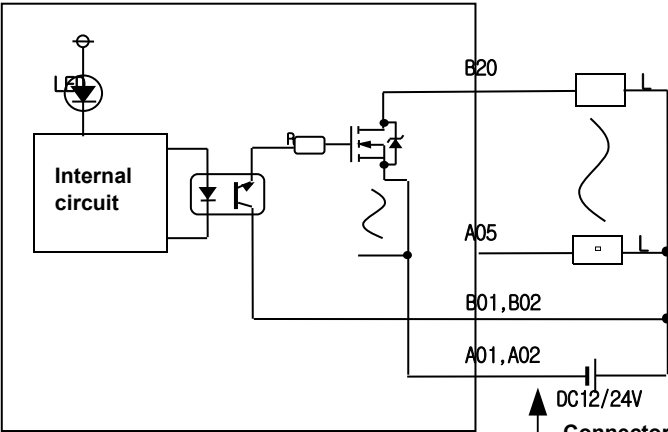
7.3.5 16 point Transistor Output Module (Sink Type)

Model		Transistor Output Module	
Specification		XGQ-TR2A	
Output point		16 point	
Insulation method		Photo coupler insulation	
Rated load voltage		DC 12 / 24V	
Load voltage range		DC 10.2 ~ 26.4V	
Max. load current		0.5A / 1 point, 4A / 1COM	
Off leakage current		0.1mA or less	
Max. inrush current		4A / 10 ms or less	
Max. voltage drop (On)		DC 0.3V or less	
Surge absorber		Zener diode	
Fuse		4A×2ea(no change) (fuse shutdown capacity:50A)	
Fuse cutoff indication		Yes (fuse cutoff, LED On, transmit the signal to CPU) External power supply Off, not detected Fuse cutoff	
Response time	Off → On	1 ms or less	
	On → Off	1 ms or less (Rated load, resistive load)	
Common method		16 point / 1COM	
Current consumption		70mA (when all points On)	
External power supply	Voltage	DC12/24V ± 10% (ripple voltage 4 Vp-p or less)	
	Current	10mAor less (DC24V connection)	
Operation indicator		Output On, LED On	
External connection method		18 point terminal block connector	
Weight		0.11kg	

Circuit configuration		Terminal block	Contact
		TB1	P0
		TB2	P1
		TB3	P2
		TB4	P3
		TB5	P4
		TB6	P5
		TB7	P6
		TB8	P7
		TB9	P8
		TB10	P9
		TB11	PA
		TB12	PB
		TB13	PC
		TB14	PD
		TB15	PE
		TB16	PF
		TB17	DC24V
		TB18	COM

00	01	02	03	04	05	06	07	08	09	0A	0B	0C	0D	0E	0F	COM
----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	-----

Model		Transistor Output Module	
Specification		XGQ-TR4A	
Output point		32 point	
Insulation method		Photo coupler insulation	
Rated load voltage		DC 12 / 24V	
Load voltage range		DC 10.2 ~ 26.4V	
Max. load current		0.1A / 1 point, 2A / 1COM	
Off leakage current		0.1mA or less	
Max. inrush current		0.7A / 10 ms or less	
Max. voltage drop (On)		DC 0.2V or less	
Surge absorber		Zener diode	
Response time	Off → On	1 ms or less	
	On → Off	1 ms or less (rated load, resistive load)	
Common method		32 point / 1COM	
Current consumption		130mA (when all points On)	
External power supply	Voltage	DC12/24V ± 10% (ripple voltage 4 Vp-p or less)	
	Current	10mA or less (DC24V connection)	
Operation indicator		Input On, LED On	
External connection method		40 Pin Connector	
Proper cable size		0.3mm ²	
Weight		0.1 kg	

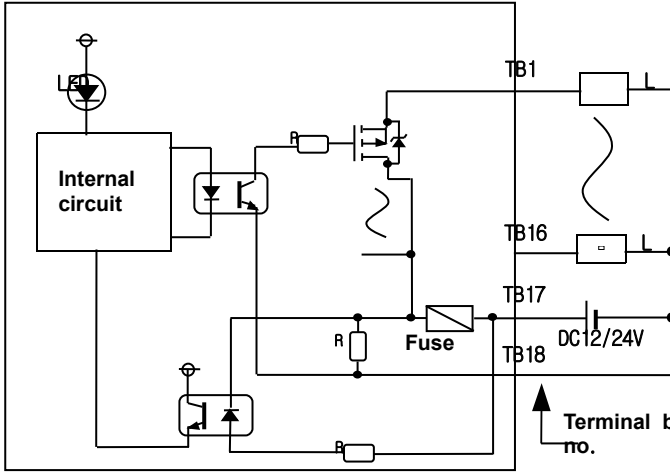
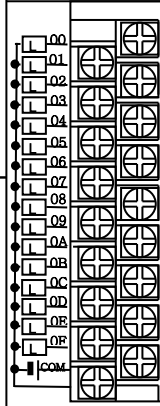
Circuit configuration		No	Cont act	No	Cont act
	B20	P00	A20	P10	
	B19	P01	A19	P11	
	B18	P02	A18	P12	
	B17	P03	A17	P13	
	B16	P04	A16	P14	
	B15	P05	A15	P15	
	B14	P06	A14	P16	
	B13	P07	A13	P17	
	B12	P08	A12	P18	
	B11	P09	A11	P19	
	B10	P0A	A10	P1A	
	B09	P0B	A09	P1B	
	B08	P0C	A08	P1C	
	B07	P0D	A07	P1D	
	B06	P0E	A06	P1E	
	B05	P0F	A05	P1F	
	B04	C	A04	C	
	B03	NC	A03	NC	
	B02	DC12 /24V	A02	COM	
	B01		A01	COM	

B20	○ ○	A20
B19	○ ○	A19
B18	○ ○	A18
B17	○ ○	A17
B16	○ ○	A16
B15	○ ○	A15
B14	○ ○	A14
B13	○ ○	A13
B12	○ ○	A12
B11	○ ○	A11
B10	○ ○	A10
B09	○ ○	A09
B08	○ ○	A08
B07	○ ○	A07
B06	○ ○	A06
B05	○ ○	A05
B04	○ ○	A04
B03	○ ○	A03
B02	○ ○	A02
B01	○ ○	A01

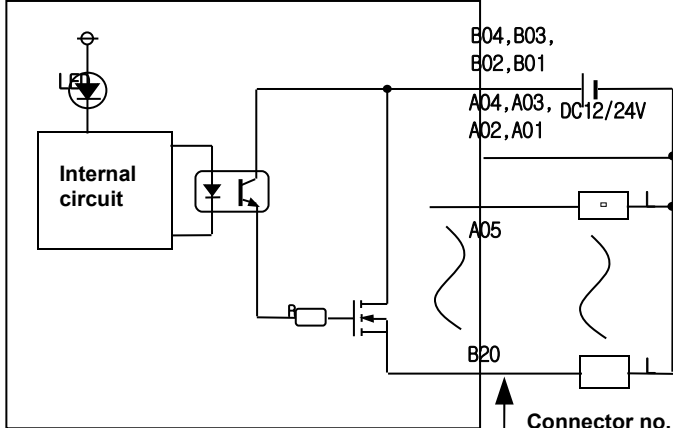
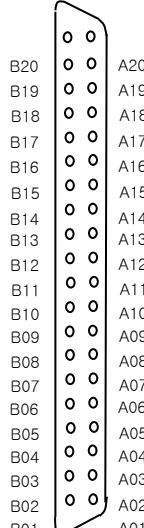
7.3.7 64 point Transistor Output Module (Sink Type)

Specification		Model	Transistor Output Module									
			XGQ-TR8A									
Output point			64 point									
Insulation method			Photo coupler insulation									
Rated load voltage			DC 12 / 24V									
Load voltage range			DC 10.2 ~ 26.4V									
Max. load current			0.1A / 1 point, 2A / 1COM									
Off leakage current			0.1mA or less									
Max. inrush current			0.7A / 10 ms or less									
Max. voltage drop (On)			DC 0.2V or less									
Surge absorber			Zener diode									
Response time	Off → On		1 ms or less									
	On → Off		1 ms or less (rated load, resistive load)									
Common method			16 point / 1COM									
Current consumption			230mA (when all points On)									
Common method			32 point / COM									
External power supply	Voltage		DC12/24V ± 10% (ripple voltage 4 Vp-p or less)									
	Current		10mA or less (DC24V connection)									
Operation indicator			Input On, LED On (32 point LED On by switch operation)									
External connection method			40 Pin Connector×2ea									
Proper cable size			0.3mm ²									
Weight			0.15 kg									
Circuit configuration			No	Cont act	No	Cont act	No	Con tact	No	Cont act	<	

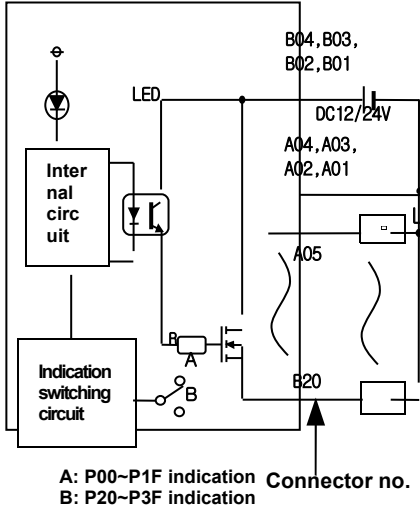
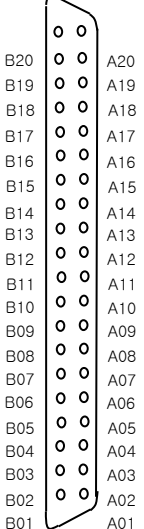
7.3.8 16 point Transistor Output Module (Source Type)

Model		Transistor Output Module	
Specification		XGQ-TR2B	
Output point		16 point	
Insulation method		Photo coupler insulation	
Rated load voltage		DC 12 / 24V	
Load voltage range		DC 10.2 ~ 26.4V	
Max. load current		0.5A / 1 point, 4A / 1COM	
Off leakage current		0.1mA or less	
Max. inrush current		4A / 10 ms or less	
Max. voltage drop (On)		DC 0.3V or less	
Surge absorber		Zener diode	
Fuse		4A×2ea (no change) (fuse shutdown capacity:50A)	
Fuse cutoff indication		Yes (fuse cutoff, LED On, transmit the signal to CPU)	
Response time	Off → On	1 ms or less	
	On → Off	1 ms or less (rated load, resistive load)	
Common method		16 point / 1COM	
Current consumption		70mA (when all points On)	
External power supply	Voltage	DC12/24V ± 10% (ripple voltage 4 Vp-p or less)	
	Current	10mA or less (DC24V connection)	
Operation indicator		Output On, LED On	
External connection method		18 point terminal block connector	
Weight		0.12kg	
Circuit configuration		Terminal block	Contact
		TB1	P0
		TB2	P1
		TB3	P2
		TB4	P3
		TB5	P4
		TB6	P5
		TB7	P6
		TB8	P7
		TB9	P8
		TB10	P9
		TB11	PA
		TB12	PB
		TB13	PC
		TB14	PD
		TB15	PE
		TB16	PF
		TB17	COM
		TB18	0V
			

7.3.9 32 point Transistor Output Module (Source Type)

Model		Transistor Output Module				
Specification		XGQ-TR4B				
Output point		32 point				
Insulation method		Photo coupler insulation				
Rated load voltage		DC 12 / 24V				
Load voltage range		DC 10.2 ~ 26.4V				
Max. load current		0.1A / 1 point, 2A / 1COM				
Off leakage current		0.1mA or less				
Max. inrush current		4A / 10 ms or less				
Max. voltage drop (On)		DC 0.3V or less				
Surge absorber		Zener diode				
Response time	Off → On	1 ms or less				
	On → Off	1 ms or less (rated load, resistive load)				
Common method		32 point / 1COM				
Current consumption		130mA (when all points On)				
External power supply	Voltage	DC12/24V ± 10% (ripple voltage 4 Vp-p or less)				
	Current	10mA or less (DC24V connection)				
Operation indicator		Input On, LED On				
External connection method		40 Pin Connector				
Proper cable size		0.3mm ²				
Weight		0.1 kg				
Circuit configuration						
		No	Cont act	No	Cont act	
		B20	P00	A20	P10	
		B19	P01	A19	P11	
		B18	P02	A18	P12	
		B17	P03	A17	P13	
		B16	P04	A16	P14	
		B15	P05	A15	P15	
		B14	P06	A14	P16	
		B13	P07	A13	P17	
		B12	P08	A12	P18	
		B11	P09	A11	P19	
		B10	P0A	A10	P1A	
		B09	P0B	A09	P1B	
		B08	P0C	A08	P1C	
		B07	P0D	A07	P1D	
		B06	P0E	A06	P1E	
		B05	P0F	A05	P1F	
		B04	COM	A04	0V	
		B03		A03		
		B02		A02		
B01	A01					

7.3.10 64 point Transistor Output Module (Source Type)

Model		Transistor Output Module							
Specification		XGQ-TR8B							
Output point		64 point							
Insulation method		Photo coupler insulation							
Rated load voltage		DC 12 / 24V							
Load voltage range		DC 10.2 ~ 26.4V							
Max. load current		0.1A / 1 point, 2A / 1COM							
Off leakage current		0.1mA or less							
Max. inrush current		4A / 10 ms or less							
Max. voltage drop (On)		DC 0.3V or less							
Surge absorber		Zener diode							
Response time	Off → On	1 ms or less							
	On → Off	1 ms or less (rated load, resistive load)							
Common method		32 point / 1COM							
Current consumption		230mA (when all points On)							
Common method		32 point / COM							
External power supply	Voltage	DC12/24V ± 10% (ripple voltage 4 Vp-p or less)							
	Current	10mA or less (DC24V connection)							
Operation indicator		Input On, LED On (32 point LED On by switch operation)							
External connection method		40 Pin Connector×2ea							
Proper cable size		0.3mm ²							
Weight		0.15 kg							
Circuit configuration		No	Con tact	No	Cont act	No	Con tact	No	Cont act
		1B20	P00	1A20	P10	2B20	P20	2A20	P30
		1B19	P01	1A19	P11	2B19	P21	2A19	P31
		1B18	P02	1A18	P12	2B18	P22	2A18	P32
		1B17	P03	1A17	P13	2B17	P23	2A17	P33
		1B16	P04	1A16	P14	2B16	P24	2A16	P34
		1B15	P05	1A15	P15	2B15	P25	2A15	P35
		1B14	P06	1A14	P16	2B14	P26	2A14	P36
		1B13	P07	1A13	P17	2B13	P27	2A13	P37
		1B12	P08	1A12	P18	2B12	P28	2A12	P38
		1B11	P09	1A11	P19	2B11	P29	2A11	P39
		1B10	P0A	1A10	P1A	2B10	P2A	2A10	P3A
		1B09	P0B	1A09	P1B	2B09	P2B	2A09	P3B
		1B08	P0C	1A08	P1C	2B08	P2C	2A08	P3C
		1B07	P0D	1A07	P1D	2B07	P2D	2A07	P3D
		1B06	P0E	1A06	P1E	2B06	P2E	2A06	P3E
		1B05	P0F	1A05	P1F	2B05	P2F	2A05	P3F
		1B04		1A04		2B04		2A04	
		1B03	CO	1A03	0V	2B03	CO	2A03	0V
		1B02	M	1A02		2B02	M	2A02	
		1B01		1A01		2B01		2A01	
									

7.4.1 32 point I/O (DC Input · Transistor Output) Combination Module

XGH-DT4A																																																																																									
Input			Output																																																																																						
Input point		16point	Output point		16 points																																																																																				
Insulation		Photo coupler insulation	Insulation method		Photo coupler insulation																																																																																				
Rated input voltage		DC 24V	Rated load voltage		DC 12 / 24V																																																																																				
Rated input current		About 4 mA	Load voltage range		DC 10.2 ~ 26.4V																																																																																				
Operation voltage range		DC20.4~28.8V (ripple rate < 5%)	Max. load current		0.1A / 1 point, 1.6A / 1COM																																																																																				
Insulation pressure		AC560Vrms/3Cycle (altitude: 2000m)	Off leakage current		0.1mA or less																																																																																				
On Voltage/Current		DC19V or higher / 3 mA or higher	Max. inrush current		0.7A / 10 ms or less																																																																																				
Off Voltage/Current		DC11V or lower / 1.7 mA or lower	Surge absorber		Zener diode																																																																																				
Input resistance		About 5.6 kΩ	Max. voltage drop (On)		DC 0.2V or less																																																																																				
Response time	Off→ On	1ms/3ms/5ms/10ms/20ms/70ms/100ms (set by CPU parameter) Default:3ms	Response time	Off→ On	1 ms or less																																																																																				
	On → Off	1ms/3ms/5ms/10ms/20ms/70ms/100ms (set by CPU parameter) Default:3ms		On → Off	1 ms or less (rated load, resistive load)																																																																																				
Common		16 point / 1 COM	Common method		16 points / 1 COM																																																																																				
Operation indicator		Input On, LED On	Operation indicator		Output On, LED On																																																																																				
Current consumption (mA)		110mA (when all points On)																																																																																							
External connection		40-pin Connector × 1																																																																																							
Weight		0.1 kg																																																																																							
Circuit configuration			External Connection																																																																																						
Input DC24V			<table><tr><th>No</th><th>Cont act</th><th>No</th><th>Cont ac</th></tr><tr><td>B20</td><td>P00</td><td>A20</td><td>P10</td></tr><tr><td>B19</td><td>P01</td><td>A19</td><td>P11</td></tr><tr><td>B18</td><td>P02</td><td>A18</td><td>P12</td></tr><tr><td>B17</td><td>P03</td><td>A17</td><td>P13</td></tr><tr><td>B16</td><td>P04</td><td>A16</td><td>P14</td></tr><tr><td>B15</td><td>P05</td><td>A15</td><td>P15</td></tr><tr><td>B14</td><td>P06</td><td>A14</td><td>P16</td></tr><tr><td>B13</td><td>P07</td><td>A13</td><td>P17</td></tr><tr><td>B12</td><td>P08</td><td>A12</td><td>P18</td></tr><tr><td>B11</td><td>P09</td><td>A11</td><td>P19</td></tr><tr><td>B10</td><td>P0A</td><td>A10</td><td>P1A</td></tr><tr><td>B09</td><td>P0B</td><td>A09</td><td>P1B</td></tr><tr><td>B08</td><td>P0C</td><td>A08</td><td>P1C</td></tr><tr><td>B07</td><td>P0D</td><td>A07</td><td>P1D</td></tr><tr><td>B06</td><td>P0E</td><td>A06</td><td>P1E</td></tr><tr><td>B05</td><td>P0F</td><td>A05</td><td>P1F</td></tr><tr><td>B04</td><td>NC</td><td>A04</td><td>DC1 2/24 V</td></tr><tr><td>B03</td><td>NC</td><td>A03</td><td></td></tr><tr><td>B02</td><td>CO</td><td>A02</td><td></td></tr><tr><td>B01</td><td>M</td><td>A01</td><td>0V</td></tr></table> 0 0 B20 0 0 A20 B19 0 0 A19 B18 0 0 A18 B17 0 0 A17 B16 0 0 A16 B15 0 0 A15 B14 0 0 A14 B13 0 0 A13 B12 0 0 A12 B11 0 0 A11 B10 0 0 A10 B09 0 0 A09 B08 0 0 A08 B07 0 0 A07 B06 0 0 A06 B05 0 0 A05 B04 0 0 A04 B03 0 0 A03 B02 0 0 A02 B01 0 0 A01			No	Cont act	No	Cont ac	B20	P00	A20	P10	B19	P01	A19	P11	B18	P02	A18	P12	B17	P03	A17	P13	B16	P04	A16	P14	B15	P05	A15	P15	B14	P06	A14	P16	B13	P07	A13	P17	B12	P08	A12	P18	B11	P09	A11	P19	B10	P0A	A10	P1A	B09	P0B	A09	P1B	B08	P0C	A08	P1C	B07	P0D	A07	P1D	B06	P0E	A06	P1E	B05	P0F	A05	P1F	B04	NC	A04	DC1 2/24 V	B03	NC	A03		B02	CO	A02		B01	M	A01	0V
No	Cont act	No	Cont ac																																																																																						
B20	P00	A20	P10																																																																																						
B19	P01	A19	P11																																																																																						
B18	P02	A18	P12																																																																																						
B17	P03	A17	P13																																																																																						
B16	P04	A16	P14																																																																																						
B15	P05	A15	P15																																																																																						
B14	P06	A14	P16																																																																																						
B13	P07	A13	P17																																																																																						
B12	P08	A12	P18																																																																																						
B11	P09	A11	P19																																																																																						
B10	P0A	A10	P1A																																																																																						
B09	P0B	A09	P1B																																																																																						
B08	P0C	A08	P1C																																																																																						
B07	P0D	A07	P1D																																																																																						
B06	P0E	A06	P1E																																																																																						
B05	P0F	A05	P1F																																																																																						
B04	NC	A04	DC1 2/24 V																																																																																						
B03	NC	A03																																																																																							
B02	CO	A02																																																																																							
B01	M	A01	0V																																																																																						
Output DC12/24V																																																																																									

7.5 Smart Link

7.5.1 Smart Link Connectable Module

The connectable digital modules used for XGK series to Smart Link are as follows.

Model	Specification	No. of Pins
XGI-D24A/B	32-point DC input module	40-pin Connector×1
XGI-D28A/B	64-point DC input module	40-pin Connector×2
XGQ-TR4A	32-point TR output module (sink type)	40-pin Connector×1
XGQ-TR4B	32-point TR output module (source type)	40-pin Connector×1
XGQ-TR8A	64-point TR output module (sink type)	40-pin Connector×2
XGQ-TR8B	64-point TR output module (source type)	40-pin Connector×2
XGH-DT4A	16-point DC input / 16-point TR output combination module	40-pin Connector×1

Some models are ready for Smart Link. For details, refer to the attached data sheet that comes with the Smart Link module.

Classification	Model	Specification
Terminal board	SLP-T40P	40-pin terminal
Relay board	SLP-RY4A	32-point relay
Cable	SLP-C101-XG	1m cable
	SLP-C201-XG	2m cable

7.5.2 Smart Link Connection

