



XGB

Programmable Logic Controller

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XGB



All-In-One PLC With Next Generation Technology

XGB is a micro PLC that offers maximum performance at minimum cost.

With its high functionality, XGB supports from simple control system to complex task.

Strengthening its communication functions, XGB offers user-oriented integrated control.

Based on its strengths, XGB can be used in many application fields.





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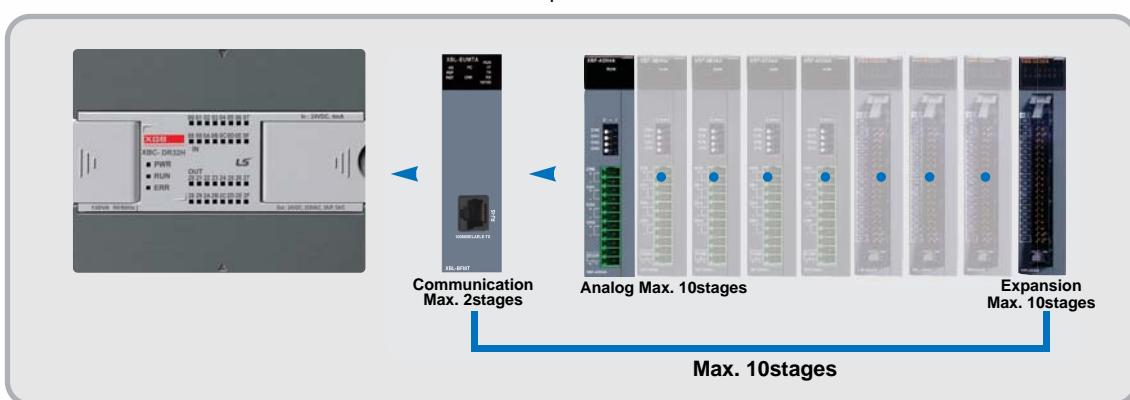
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It's Slim

Block type unit

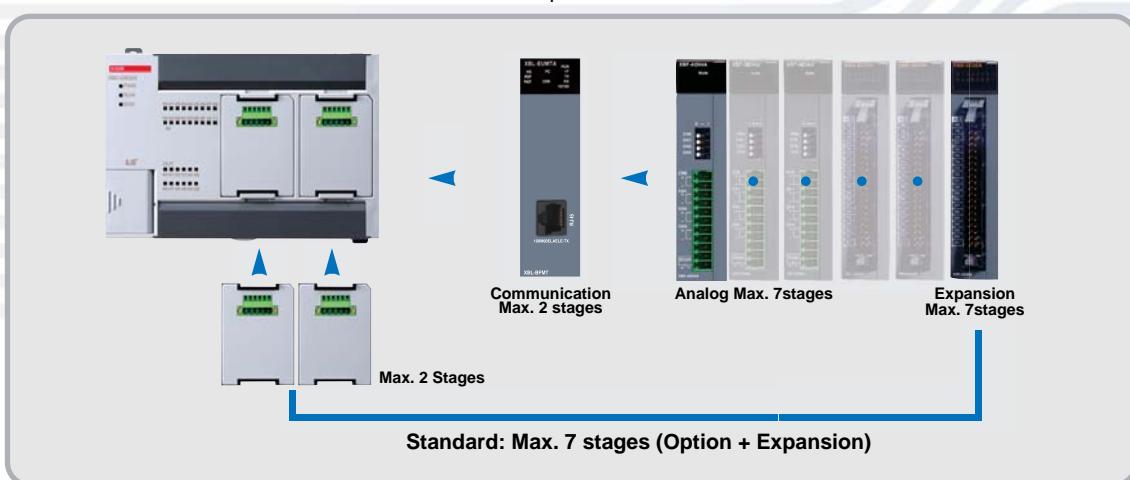
XBC/XEC (High performance type)

- 83ns/ Step processing speed
- Max. 10 expansion modules, Max. 384 I/O points control
- Max. 5-ch communication with built-in functions and expansion modules



XBC/XEC (Standard type)

- 94ns/ Step processing speed
- Max. 7 expansion modules, Max. 2 option modules, Max. 254 I/O points control
- Max. 5-ch communication with built-in functions and expansion modules



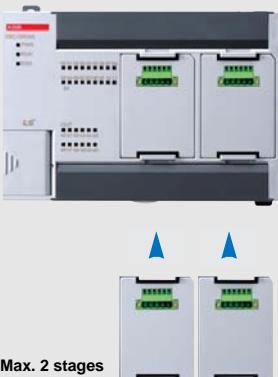


High performance

With its high-speed processing and system capability, XGB offers utmost efficiency for your applications.

XBC/XEC (Economic type)

- 240ns / Step processing speed
- Max. 2 option modules, Max. 38 I/O points control
- 2-ch built-in communication functions (RS-232C/RS485)



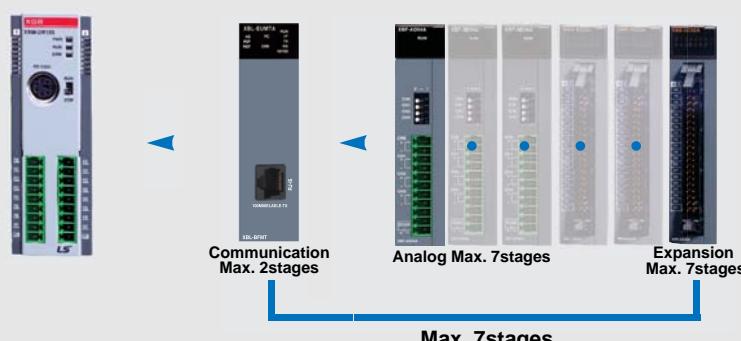
Option modules

| | |
|-----------|--|
| XBO-RTCA | RTC(Real Time Clock), Battery |
| XBO-DC04A | DC 24V, Input 4 points |
| XBO-TN04A | Transistor (Sink), Output 4 point |
| XBO-RD01A | RTD(Resistance Temperature Detect, Input 1 ch) |
| XBO-AD02A | Voltage / Current, Input 2 chs |
| XBO-DA02A | Voltage / Current, Output 2 chs |
| XBO-AH02A | Voltage / Current, Input 1 ch |
| XBO-TC02A | Voltage / Current, Output 1 ch |
| | TC(Thermocouple), Input 2 chs |

Modular type unit

XBM (Standard type)

- 160ns / Step processing speed
- Max. 7 expansion modules, Max. 256 I/O points control
- Max. 5-ch communication with built-in functions and expansion modules



Block type unit(High performance,
Standard, Economic)

| Item | Descriptions | | | Standard | |
|--------------------------------|---|----------------------------|------------------|---|--|
| Ambient temperature | 0 ~ 55 °C | | | | |
| Storage temperature | -25 ~ +70 °C | | | | |
| Ambient humidity | 5 ~ 95%RH (Non-condensing) | | | | |
| Storage humidity | 5 ~ 95%RH (Non-condensing) | | | | |
| Vibration resistance | Occasional vibration | | | 10 times each direction (X, Y and Z) IEC61131-2 | |
| | Frequency | Acceleration | Pulse width | | |
| | 10 ≤ f < 57Hz | - | 0.075mm | | |
| | 57 ≤ f ≤ 150Hz | 9.8m/s ² (1G) | - | | |
| Shock resistance | Continuous vibration | | | IEC61131-2 | |
| | Frequency | Acceleration | Pulse width | | |
| | 10 ≤ f < 57Hz | - | 0.035mm | | |
| | 57 ≤ f ≤ 150Hz | 4.9m/s ² (0.5G) | - | | |
| Noise resistance | <ul style="list-style-type: none"> Peak acceleration: 147m/s² (15g) Pulse waveform: Half-sine, 3times each direction per each axis | | | LSIS Standard IEC61131-2 IEC61000-4-2 IEC61131-2 IEC61000-4-3 IEC61131-2 IEC61000-4-4 | |
| | Square wave impulse noise | ±500 V | | | |
| | Electrostatic discharge | 4kV | | | |
| | Radiated electromagnetic field noise | 80 ~ 1000MHz, 10V/m | | | |
| Operating ambience | Fast transient/ Burst noise | Main unit | Expansion module | IEC61131-2 IEC61000-4-4 | |
| | | 2kV | 1kV | | |
| Altitude | Free from corrosive gases and excessive dust | | | | |
| Pollution level ^{*1)} | Up to 2,000m | | | | |
| Cooling | Less than 2 | | | | |
| | Air-cooling | | | | |

^{*1)} Pollution level indicates the degree to which conductive material is generated in the environment where the equipment is used.
Pollution level 2 is the condition that only non-conductive pollution occurred but temporary conductivity may be produced due to condensing.

Modular type unit

(XBM-DR16S, DN16S, DN32S)



| Item | Descriptions | | | Standard | |
|--------------------------------|---|----------------------------|------------------|---|--|
| Ambient temperature | 0 ~ 55 °C | | | | |
| Storage temperature | -25 ~ +70 °C | | | | |
| Ambient humidity | 5 ~ 95%RH (Non-condensing) | | | | |
| Storage humidity | 5 ~ 95%RH (Non-condensing) | | | | |
| Vibration resistance | Occasional vibration | | | 10 times each direction (X, Y and Z) IEC61131-2 | |
| | Frequency | Acceleration | Pulse width | | |
| | 10 ≤ f < 57Hz | - | 0.075mm | | |
| | 57 ≤ f ≤ 150Hz | 9.8m/s ² (1G) | - | | |
| Shock resistance | Continuous vibration | | | IEC61131-2 | |
| | Frequency | Acceleration | Pulse width | | |
| | 10 ≤ f < 57Hz | - | 0.035mm | | |
| | 57 ≤ f ≤ 150Hz | 4.9m/s ² (0.5G) | - | | |
| Noise resistance | <ul style="list-style-type: none"> Peak acceleration: 147m/s² (15g) Pulse waveform: Half-sine, 3times each direction per each axis | | | LSIS Standard IEC61131-2 IEC61000-4-2 IEC61131-2 IEC61000-4-3 IEC61131-2 IEC61000-4-4 | |
| | Square wave impulse noise | ±500 V | | | |
| | Electrostatic discharge | 4kV | | | |
| | Radiated electromagnetic field noise | 80 ~ 1000MHz, 10V/m | | | |
| Operating ambience | Fast transient/ Burst noise | Main unit | Expansion module | IEC61131-2 IEC61000-4-4 | |
| | | 2kV | 1kV | | |
| Altitude | Free from corrosive gases and excessive dust | | | | |
| Pollution level ^{*1)} | Up to 2,000m | | | | |
| Cooling | Less than 2 | | | | |
| | Air-cooling | | | | |

^{*1)} Pollution level indicates the degree to which conductive material is generated in the environment where the equipment is used.
Pollution level 2 is the condition that only non-conductive pollution occurred but temporary conductivity may be produced due to condensing.

Names and functions

Programmable Logic Controller

Block type unit

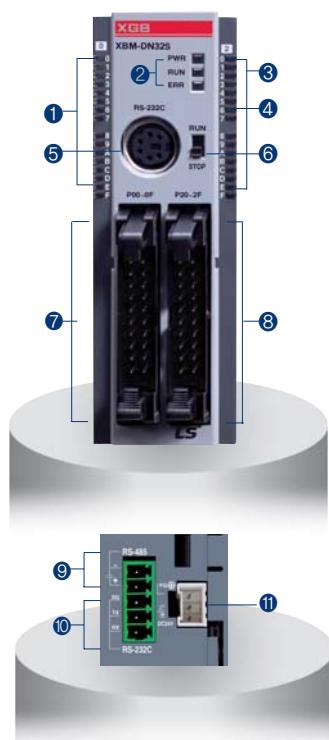
(High performance,
Standard, Economic)



| No. | Name | Descriptions | Descriptions | Remark |
|-----|----------------------------|-----------------------------|---|--------|
| ① | Input LED | Input indication | Red On: Input signal On Red Off: Input signal Off | |
| | | PWR: Power indication | Red On: Power On Red Off: Power Off | |
| | Condition LED | RUN: RUN indication | Green On: PLC Run Green Off: PLC Stop | |
| | | ERR: Error indication | Red On-and-Off: PLC Error Red Off: PLC Normal condition | |
| ③ | Output LED | Output LED | On: Output signal On Off: Output signal Off | |
| ④ | Expansion module connector | Expansion module connector | Connection of expansion module (I/O, Special function, Communication) | |
| ⑤ | PDT connector | PDT connection | Connector for XG5000 / XG-PD connection | |
| ⑥ | Mode switch | Mode setting | Setting Run/Stop mode of PLC | |
| ⑦ | Input terminal block | Input wiring connection | - | |
| ⑧ | Output terminal block | Output wiring connection | - | |
| ⑨ | Built-in RS-485 connector | Built-in RS-485 connection | RS-485 + / - terminal connection | |
| ⑩ | Built-in RS-232C connector | Built-in RS-232C connection | RS-232C TXD, RXD, SG terminal connection | |
| ⑪ | Power terminal | Power supply terminal | AC 100-240V power supply | |
| ⑫ | Option module slot | Slot for option module | - | |

Modular type unit

(XBM-DR16S, DN16S, DN32S)



| No. | Name | Descriptions | Descriptions | Remark |
|-----|-----------------------------------|-----------------------------|---|--------|
| ① | Input LED | Input indication | Red On: Input signal On Red Off: Input signal Off | |
| | | PWR: Power indication | Red On: Power On Red Off: Power Off | |
| | Condition LED | RUN: RUN indication | Green On: PLC Run Green Off: PLC Stop | |
| | | ERR: Error indication | Red On-and-Off: PLC Error Red Off: PLC Normal condition | |
| ③ | Output LED | Output LED | On: Output signal On Off: Output signal Off | |
| ④ | Expansion module connector | Expansion module connector | Connection of expansion module (I/O, Special function, Communication) | |
| ⑤ | PDT connector | PDT connection | Connector for XG5000 / XG-PD connection | |
| ⑥ | Mode switch | Mode setting | Setting Run/Stop mode of PLC | |
| ⑦ | Input connector / Terminal block | Input wiring connection | - | |
| ⑧ | Output connector / Terminal block | Output wiring connection | - | |
| ⑨ | Built-in RS-485 connector | Built-in RS-485 connection | RS-485 + / - terminal connection | |
| ⑩ | Built-in RS-232C connector | Built-in RS-232C connection | RS-232C TXD, RXD, SG terminal connection | |
| ⑪ | Power connector | Power supply connection | DC 24V power supply | |

High performance type

Performance specifications

| Item | XBC/XEC-DR32H XBC-DR32H/DC ^{*)} XEC-DR32H/DI | XBC/XEC-DN32H XEC-DP32H ^{*)} XBC-DN32H/DC | XBC/XEC-DR64H XBC-DR64H/DC ^{*)} XEC-DR64H/DI | XBC/XEC-DN64H XEC-DP64H ^{*)} XBC-DN64H/DC | | |
|---|--|--|---|--|--|--|
| Control method | Repetitive, cyclic, interrupt, constant scan | | | | | |
| I/O control method | Refresh mode (Batch processing by scan synchronization), Direct mode by instruction | | | | | |
| Programming language | Ladder diagram or IEC standard (LD, SFC, ST) ^{*)} | | | | | |
| Processing speed | 83 ns / Step | | | | | |
| Program capacity | 15Kstep (IEC type: 200KB) | | | | | |
| Main unit I/O points | 32 (Input:16, Output:16) | 32 (Input:16, Output:16) | 64 (Input: 32, Output: 32) | 64 (Input: 32, Output: 32) | | |
| Max. I/O points (Main + Expansion 10 stages) | 352 points | | 384 points | | | |
| Total program | 128 | | | | | |
| Operation mode | RUN, STOP, DEBUG | | | | | |
| Self diagnosis | Detects errors of scan time, memory error, I/O error, battery error, power error, etc. | | | | | |
| Program port | USB (Rev 1.1), RS-232C 1 channel (Loader) | | | | | |
| Retain data at power failure | Latch area setting at basic parameter | | | | | |
| Built-in functions | RS-232C / RS-485(2 ch), Pulse catch, Input filter, External interrupt, PID control, High-speed counter, Positioning, RTC | | | | | |
| Data memory | | | | | | |
| XBC | | XECA (IEC type) | | | | |
| P | P0000 ~ P1023F (16,384 points) | Symbolic variable | A | 32KB (Max. 16KB retain setting available) | | |
| M | M0000 ~ M1023F (16,384 points) | Input variable | I | 2KB(%IX 15.15.63) | | |
| K | K0000 ~ K4095F (65,536 points) | Output variable | Q | 2KB(%QX 15.15.63) | | |
| L | L0000 ~ L2047F (32,768 points) | Direct variable | M | 16KB (Max. 8KB retain setting available) | | |
| F | F0000 ~ F1023F (16,384 points) | | R | 20KB (1 block) | | |
| T | 100ms, 10ms, 1ms: T0000 ~ T1023 (1,024)(Adjustable by parameter setting) | Flag variable | W | 20KB | | |
| C | C0000 ~ C1023 (1,024) | | F | 2KB | | |
| S | S00.00 ~ S127.99 | Flag variable | K | 8KB | | |
| D | D0000 ~ D10239 (10,240 word) | | L | 4KB | | |
| U | U00.00 ~ U0A.31 (Analog data refresh area: 352 word) | Flash area | N | 10KB | | |
| Z | Z000 ~ Z127 (128 word) | | U | 1KB | | |
| N | N000 ~ N5119 (5,120 word) | Flash area | R | 20KB (2 blocks) | | |

^{*)} XEC is IEC standard language programming.

Standard type

Performance specifications

| Item | XBC/XEC-DN20SU | XBC/XEC-DN30SU | XBC/XEC-DN40SU | XBC/XEC-DN60SU | | | | |
|--|---|---|-----------------------------|-----------------------------|---|--|--|--|
| XBC/XEC-DR20SU | XBC/XEC-DR30SU | XBC/XEC-DR40SU | XBC/XEC-DR60SU | | | | | |
| XBC/XEC-DP20SU | XBC/XEC-DP30SU | XBC/XEC-DP40SU | XBC/XEC-DP60SU | | | | | |
| Control method | | Repetitive, cyclic, interrupt, constant scan | | | | | | |
| I/O control method | | Refresh mode (Batch processing by scan synchronization), Direct mode by instruction | | | | | | |
| Programming language | | Ladder diagram, Instruction List | | | | | | |
| Processing speed | | 94 ns / Step | | | | | | |
| Program capacity | | 15Kstep / 200KB | | | | | | |
| Main unit I/O points | 20 (Input:12, Output:8) | 30 (Input:18, Output:12) | 40 (Input:24, Output:16) | 60 (Input:36, Output:24) | | | | |
| Max. I/O points (Main + Expansion 7 stages) | 244 points | 254 points | 264 points | 284 points | | | | |
| Total program | 128 | | | | | | | |
| Operation mode | RUN, STOP, DEBUG | | | | | | | |
| Self diagnosis | Detects errors of scan time, memory error, I/O error, battery error, power error, etc. | | | | | | | |
| Program port | RS-232C 1 channel (Loader), USB 1 channel (U-type model) | | | | | | | |
| Retain data at power failure | Latch area setting at basic parameter | | | | | | | |
| Built-in functions | RS-232C / RS-485(2 ch), Pulse catch, Input filter, External interrupt, PID control, High-speed counter, Positioning | | | | | | | |
| Data memory | | | | | | | | |
| XBC | | | | | | | | |
| Data area | P | P0000 ~ P1023F (16,384 points) | Symbolic variable | A | 16KB (Max. 16KB retain setting available) | | | |
| | M | M0000 ~ M1023F (16,384 points) | | I | 2KB (%IX 15.15.63) | | | |
| | K | K0000 ~ K4095F (65,536 points) | Input variable | Q | 2KB (%QX 15.15.63) | | | |
| | L | L0000 ~ L2047F (32,768 points) | Output variable | | | | | |
| | F | F0000 ~ F1023F (16,384 points) | | M | 8KB (Max. retain setting available) | | | |
| | T | 100ms, 10ms, 1ms: T0000 ~ T1023 (1,024) (Adjustable by parameter setting) | Direct variable | R | 20KB (1 block) | | | |
| | C | C0000 ~ C1023 (1,024) | | W | 20KB | | | |
| | S | S00.00 ~ S127.99 | | F | 2KB | | | |
| | D | D0000 ~ D10239 (10,240 word) | | K | 8KB | | | |
| | U | U00.00 ~ U0A.31 (Analog data refresh area: 352 word) | Flag variable | L | 4KB | | | |
| | Z | Z000 ~ Z127 (128 word) | | U | 1KB | | | |
| | R | N0000 ~ N10236 (10,240 word) | Flash area | 20KB (2 block) | | | | |

*Some products are due in market soon.

Economic type

Performance specifications

| Item | Specifications ('E' type) | | | | | | |
|---|---|---|---|---|--|--|--|
| | XBC/XEC-DR10E XBC/XEC-DN10E XBC/XEC-DP10E | XBC/XEC-DR14E XBC/XEC-DN14E XBC/XEC-DP14E | XBC/XEC-DR20E XBC/XEC-DN20E XBC/XEC-DP20E | XBC/XEC-DR30E XBC/XEC-DN30E XBC/XEC-DP30E | | | |
| Program control method | Reiterative operation, Fixed cycle operation | | | | | | |
| I/O control method | Scan synchronized batch processing method (Refresh method) Direct method by instruction | | | | | | |
| Program language | Ladder Diagram (LD), Sequential Function Chart (SFC) Structured Text (ST), Instruction List (IL) | | | | | | |
| Processing speed (Basic instruction) | 240 ns /step | | | | | | |
| Program capacity | 4 Kstep (XBC-D xxxx E), 50 KB (XEC-D xxx E) | | | | | | |
| Max. I/O points (Main+Option X) | 14 point (1 option) | 18 point (1 option) | 28 point (2 option) | 38 point (2 option) | | | |
| Operation Mode | RUN, STOP, DEBUG | | | | | | |
| Total number of program block | 128 | | | | | | |
| Task | Initialization | 1 | | | | | |
| | Fixed period | 8 | | | | | |
| | External input | 4 (%I×0.0~%I×0.3) | | | | | |
| | Internal device | 8 | | | | | |
| Program port | RS-232C 1 channel (Loader) | | | | | | |
| Self - diagnostic functions | Watchdog Timer, Memory error detection I/O error detection, etc. | | | | | | |
| Built-in functions | RS-232C or RS-485(1 ch), Pulse catch, Input filter, External interrupt, High-speed counter | | | | | | |
| Data keeping method at power failure | Setting to retain area at basic parameter | | | | | | |



Slim type

Performance specifications

| Item | XBM-DR16S | XBM-DN16S | XBM-DN32S | | | |
|--|---|--|------------------------------------|--|--|--|
| Control method | Repetitive, cyclic, fixed cycle operation, constant scan | | | | | |
| I/O control method | Refresh mode (Batch processing by scan synchronization), Direct mode by instruction | | | | | |
| Programming language | Ladder diagram, Instruction List | | | | | |
| Processing speed | 160 ns/Step | | | | | |
| Program capacity | 10Kstep | | | | | |
| Main unit I/O points | 16 points (Input:8, Output:8) | 16 points (Input:8, Output:8) | 32 points (Input:16, Output:16) | | | |
| Max. I/O points (Main + Expansion 7 stages) | 240 points | | 256 points | | | |
| Total program | 128 | | | | | |
| Operation mode | RUN, STOP, DEBUG | | | | | |
| Self diagnosis | Detects errors of scan time, memory error, I/O error, battery error, power error, etc. | | | | | |
| Program port | RS-232C 1 channel (Loader) | | | | | |
| Retain data at power failure | Latch area setting at basic parameter | | | | | |
| Built-in functions | RS-232C/RS-485(2 ch), Pulse catch, Input filter, External interrupt, PID control, High-speed counter, Positioning ^{*1} | | | | | |
| Data memory | | | | | | |
| XBM | | | | | | |
| Data area | P | P0000 ~ P127F (2,048 points) | | | | |
| | M | M0000 ~ M255F (4,096 points) | | | | |
| | K | K0000 ~ K2559F (Special area: K2600-K2559F) (40,960 points) | | | | |
| | L | L0000 ~ L1279F (20,480 points) | | | | |
| | F | F000 ~ F255F (4,096 points) | | | | |
| | T | 100ms, 10ms, 1ms: T000 ~ T255 (256) (Adjustable by parameter setting) | | | | |
| | C | C000 ~ C255 (256) | | | | |
| | S | S00.00 ~ S127.99 | | | | |
| | D | D0000 ~ D5119 (5,120 word) | | | | |
| | U | U00.00 ~ U07.31 (Analog data refresh area: 256 word) | | | | |
| | Z | Z000 ~ Z127 (128 word) | | | | |
| | N | N0000 ~ N3935 (3,936 word) | | | | |

^{*1}) XBM-DR16S does not have built-in positioning function.



High performance type

Input specification

| Item | XBC/XEC-DR32H | XBC/XEC-DN32H XEC-DP32H | XBC/XEC-DR64H | XBC/XEC-DN64H XEC-DP64H | XEC-DR32H/D1 XEC-DR64H/D1 |
|----------------------------------|------------------------------------|--|----------------------------------|-------------------------|-------------------------------|
| Input points | 16 points | | 32 points | | 16 points |
| Rated input voltage | DC 24V | | DC 12/24V | | DC 12/24V |
| Rated input current | 4mA (Contact 0~7: 9mA) | | 5 / 10mA (Contact 0~7 : 7/15mA) | | DC 9.5~30V (Ripple rate < 5%) |
| Operation voltage range | DC 20.4 ~ 28.8V (Ripple rate < 5%) | | DC 9.5~30V (Ripple rate < 5%) | | DC 9.5~30V (Ripple rate < 5%) |
| On voltage / On current | DC 19V or more / 3mA or more | | DC 9V or more / 3mA or more | | DC 9V or more / 3mA or more |
| Off voltage / Off current | DC 6V or less / 1mA or less | | DC 5V or less / 1mA or less | | DC 5V or less / 1mA or less |
| Input resistance | 5.6kΩ (P00 ~ P07: 2.7kΩ) | | 2.7kΩ (%IX0.0.0-%IX0.0.7:1.8kΩ) | | |
| Response time | Off → On On → Off | 1 / 3 / 5 / 10 / 20 / 70 / 100 ms (Setting by CPU parameter) Initial value: 3ms | | | |

Relay output specification

| Item | XBC/XEC-DR32H | XBC/XEC-DR64H |
|-------------------------------------|--|--|
| Output point | 16 points | 32 points |
| Insulation method | Relay insulation | |
| Rated load voltage / current | DC 24V 2A (Resistive load) / AC 220V 2A ($\text{COS}\phi = 1$), 5A / COM | |
| Min. load voltage / current | DC 5V / 1mA | |
| Max. load voltage | AC 250V, DC 125V | |
| Off leakage current | 0.1mA (AC 220V, 60Hz) | |
| Max. On / Off frequency | 3,600 times / hr | |
| Service life | Mechanical | 20millions times or more |
| | Electrical | Rated load voltage / current 100,000 times or more |
| | | AC 200V / 1.5A, AC 240V / 1A ($\text{COS}\phi = 0.7$) 100,000 times or more |
| | | AC 200V / 1A, AC 240V / 0.5A ($\text{COS}\phi = 0.35$) 100,000 times or more |
| | | DC 24V / 1A, DC 100V / 0.1A (L / R = 7ms) 100,000 times or more |
| Response time | Off → On | 10ms or less |
| | On → Off | 12ms or less |
| Common method | 4 points / COM | P20 ~ 2F: 4 points / COM P30 ~ 3F: 8 points / COM |

Transistor output specification

| Item | XBC-DN32H/XEC-DN(P)32H | XBC-DN64H/XEC-DN(P)64H |
|-------------------------------|--|--|
| Output point | 16 points | 32 points |
| Insulation method | Photo coupler insulation | |
| Rated load voltage | DC 12 / 24V | |
| Load voltage range | DC 10.2 ~ 26.4 V | |
| Max. load voltage | 0.5A / 1point (P20 ~ 23: 0.1A / point) | |
| Off leakage current | 0.1mA or less | |
| Max. inrush current | 4A / 10ms or less | |
| Max. voltage drop (On) | DC 0.4V or less | |
| Surge absorber | Zener Diode | |
| Response time | Off → On | 1ms or less |
| | On → Off | 1ms or less (Rated load, resistive load) |
| Common method | 4 points / COM | P20 ~ 2F: 4 points / COM P30 ~ 3F: 8 points / COM |
| External power supply | Voltage | DC 12 / 24V ± 10% (Ripple voltage 4 Vp-p or less) |
| | Current | 10mA or less (DC 24V connection) |

Standard type

Input specification

| Item | XBC/XEC-DN20SU XBC/XEC-DR20SU | XBC/XEC-DN30SU XBC/XEC-DR30SU | XBC/XEC-DN40SU XBC/XEC-DR40SU | XBC/XEC-DN60SU XBC/XEC-DR60SU |
|----------------------------------|--|--|----------------------------------|----------------------------------|
| Input point | 12 points | 18 points | 24 points | 36 points |
| Rated input voltage | | DC 24V | | |
| Rated input current | 4mA(Contact point 0~1 : 16mA, 2~7 : 10mA), DN20SU(DN30SU) : 4mA(Contact point 0~7: 10mA) | | | |
| Operation voltage range | | DC 20.4 ~ 28.8V (Ripple rate < 5%) | | |
| On voltage / On current | | DC 19V or more / 3mA or more | | |
| Off voltage / Off current | | DC 6V or less / 1mA or less | | |
| Input resistance | | 5.6kΩ (P00 ~ P07 : 2.7kΩ) | | |
| Response time | Off → On On → Off | 1 / 3 / 5 / 10 / 20 / 70/ 100ms (Setting by CPU parameter) Initial value : 3ms | | |

Transistor output specification (Sink/Source type)

| Item | XBC/XEC-DN20SU XBC/XEC-DR20SU | XBC/XEC-DN30SU XBC/XEC-DR30SU | XBC/XEC-DN40SU XBC/XEC-DR40SU | XBC/XEC-DN60SU XBC/XEC-DR60SU |
|------------------------------|----------------------------------|--|----------------------------------|----------------------------------|
| Output point | 8 points | 12 points | 16 points | 24 points |
| Insulation method | | Photo coupler insulation | | |
| Rated load voltage | | DC 12 / 24V | | |
| Load voltage range | | DC 10.2 ~ 26.4V | | |
| Max. load voltage | | 0.5A / 1 point, 2A / 1COM | | |
| Off leakage current | | 0.1mA or less | | |
| Max. inrush current | | 4A / 10ms or less | | |
| Max voltage drop (on) | | DC 0.4V or less | | |
| Surge absorber | | Zener Diode | | |
| Response time | Off → On On → Off | DC 12 / 24V± 10%(Ripple voltage 4Vp-p or less) 25mA or less (DC 24V connection) | | |

Relay output specification

| Item | XBC/XEC-DR20SU | XBC/XEC-DR30SU | XBC/XEC-DR40SU | XBC/XEC-DR60SU |
|-----------------------------------|---|---|----------------|----------------|
| Output point | 8 points | 12 points | 16 points | 24 points |
| Insulation method | | Relay insulation | | |
| Rated load voltage/current | DC 24V 2A / AC 220V 2A($\text{COS}\phi = 1$), 5A / COM | | | |
| Min. load voltage/current | | DC 5V / 1mA | | |
| Max. load Current | | AC 250V, DC 125V | | |
| Off leakage current | | 0.1mA(AC 220V, 60Hz) | | |
| Surge absorber | | - | | |
| Response time | Off → On On → Off | 10ms or less 12ms or less | | |
| Common method (/ COM) | 4 points / COM (P40, P41 : 1 point / COM), (P42 P43 : 2 points / COM) | | | |
| Life-cycle | Mechanical | Rated load voltage / Current 10 million times or more | | |
| | | AC 220V / 1.5A, AC 240V / 1A ($\text{COS}\phi = 0.7$) 10 million times or more | | |
| | Electrical | AC 200V / 1A, AC 240V / 0.5A ($\text{COS}\phi = 0.35$) 10 million times or more | | |
| | | DC 24V / 1A, DC 100V / 0.1A (L / R = 7ms) 10 million times or more | | |

Economic type

Input specification

| Modal | | Main unit | | | |
|----------------------------|----------|--|--|-----------------|-----------------|
| Specification | | XBC/XEC-DR10E | XBC/XEC-DR14E | XBC/XEC-DR20E | XBC/XEC-DR30E |
| Input point | | 6 points | 8 points | 12 points | 18 points |
| Insulation method | | Photo coupler insulation | | | |
| Rated input voltage | | DC 24V | | | |
| Rated input current | | About 4mA (Contact point 0~3: about 7mA) | | | |
| Operation voltage range | | DC 20.4~28.8V (Within ripple rate 5%) | | | |
| On voltage / On current | | DC 19V or higher / 3mA or higher | | | |
| Off voltage / Off current | | DC 6V or lower / 1mA or lower | | | |
| Input resistance | | About 5.6kΩ (%10.0.0~%10.0.3: about 2.7kΩ) | | | |
| Response time | Off → On | 1 / 3 / 5 / 10 / 20 / 70 / 100ms (Set by I/O parameter) Default: 3ms | | | |
| | On → Off | | | | |
| Insulation pressure | | AC 560Vrms / 3 cycle (Altitude 2000m) | | | |
| Insulation resistance | | 10kΩ or more by MegOhmMeter | | | |
| Common method | | 6 points / COM | 8 points / COM | 12 points / COM | 18 points / COM |
| Proper cable size | | 0.3mm² | | | |
| Operation indicator | | LED On when Input On | | | |
| External connection method | | 14 point terminal block connector (M3 × 6 screw) | 24 point terminal block connector (M3 × 6 screw) | | |
| Weight | | 330g | 340g | 450g | 465g |
| | | 313g | 315g | 418g | 423g |

Relay output specification

| Modal | | Main unit | | | |
|----------------------------|------------|--|--|----------------|----------------|
| Specification | | XBC/XEC-DR10E | XBC/XEC-DR14E | XBC/XEC-DR20E | XBC/XEC-DR30E |
| Output point | | 4 points | 6 points | 8 points | 12 points |
| Insulation method | | Relay insulation | | | |
| Rated load voltage/Current | | DC 24V 2A (resistive load) / AC 220V 2A (COSF = 1), 5A / COM | | | |
| Min. load voltage/Current | | DC 5V / 1mA | | | |
| Max. load voltage | | AC 250V, DC 125V | | | |
| Off leakage current | | 0.1mA (AC 220V, 60Hz) | | | |
| Max. On/Off frequency | | 3,600 times / hour | | | |
| Surge absorber | | None | | | |
| Service life | Mechanical | 20 million times or more | | | |
| | | Rated load voltage / Current 100,000 times or more | | | |
| | | AC 200V / 1.5A, AC 240V / 1A (CO \emptyset = 0.7) 100,000 times or more | | | |
| | | AC 200V / 1A, AC 240V / 0.5A (CO \emptyset = 0.35) 100,000 times or more | | | |
| | Electrical | DC 24V / 1A, DC 100V / 0.1A (L / R = 7ms) 100,000 times or more | | | |
| Response time | Off → On | 10ms or less | | | |
| | On → Off | 12ms or less | | | |
| Common method | | 2 points / COM | 4 points / COM | 4 points / COM | 4 points / COM |
| Proper cable size | | Stranded cable 0.3~0.75mm² (External diameter 2.8mm or less) | | | |
| Operation indicator | | LED On when Output On | | | |
| External connection method | | 14 point terminal block connector (M3 × 6 screw) | 24 point terminal block connector (M3 × 6 screw) | | |

**Transistor output specification
(Sink / Source type)**

| Specification | Main unit | | | |
|------------------------------|--|--|--|--------------------------------|
| | XBC/XEC-DN10E XBC/XEC-DP10E | XBC/XEC-DN14E XBC/XEC-DP14E | XBC/XEC-DN20E XBC/XEC-DP20E | XBC/XEC-DN30E XBC/XEC-DP30E |
| Output point | 4 points | 6 points | 8 points | 12 points |
| Insulation method | | | Photo coupler insulation | |
| Rated load voltage | | | DC 12/24V | |
| Operation load voltage range | | | DC 10.2~26.4V | |
| Max. load current | | | 0.5A/1 point, 2A/1COM | |
| Off leakage current | | | 0.1mA or less | |
| Max. inrush current | | | 4A/10ms or less | |
| Max. voltage drop when On | | | DC 0.4V or less | |
| Surge absorber | | | Zener diode | |
| Response time | Off → On | | 1ms less | |
| | On → Off | | 1ms less (Rated load, resistive load) | |
| Common method | | | 4 point / COM | |
| Proper wire size | | | Stranded wire 0.3~0.75㎟ (External diameter 2.8㎟ or less) | |
| External power | Voltage | | DC 12/24V±10% (Ripple voltage 4 Vp-p or less) | |
| | Current | | 25mA or less (When connecting DC 24V) | |
| Operation indicator | | | LED On when Output On | |
| External connection method | 14 point terminal block connector (M3 × 6 screw) | 24 point terminal block connector (M3 × 6 screw) | | |

Slim type

Input specification

| Item | XBM-DR16S | XBM-DN16S | XBM-DN32S |
|-------------------------|-----------|------------------------------------|---|
| Input point | 8 points | 8 points | 16 points |
| Rated input voltage | | DC 24V | |
| Rated input current | | 4mA (00 ~ 03: 7mA) | |
| Operation voltage range | | DC 20.4 ~ 28.8V (Ripple rate < 5%) | |
| Response time | Off → On | | 1 / 3 / 5 / 10 / 20 / 70 / 100ms (Set by CPU parameter) Default: 3ms |
| | On → Off | | |
| Common method | | 8 points / COM | 16 points / COM |

Slim type

Relay output specification

| Item | | XBM-DR16S |
|------------------------------|------------|--|
| Output point | | 8 points |
| Insulation method | | Relay insulation |
| Rated load voltage / current | | DC 24V 2A (Resistive load) / AC 220V 2A ($\text{COS}\phi = 1$), 5A / COM |
| Min. load voltage / current | | DC 5V / 1mA |
| Max. load voltage | | AC 250V, DC 125V |
| Off leakage current | | 0.1mA (AC 220V, 60Hz) |
| Max. On / Off frequency | | 3,600 times / hr |
| Service life | Mechanical | 20 millions times or more |
| | Electrical | Rated load voltage / Current 100,000 times or more |
| | | AC 200V / 1.5A, AC 240V / 1A ($\text{COS}\phi = 0.7$) 100,000 times or more |
| | | AC 200V / 1A, AC 240V / 0.5A ($\text{COS}\phi = 0.35$) 100,000 times or more |
| | | DC 24V / 1A, DC 100V / 0.1A (L / R = 7ms) 100,000 times or more |
| Response time | Off → On | 10ms or less |
| | On → Off | 12ms or less |
| Common method | | 8 points / COM |

Transistor output specification

| Item | | XBM-DN16S | XBM-DN32S |
|----------------------------|----------|--|----------------|
| Output point | | 8 point | 16 point |
| Insulation method | | Photo coupler insulation | |
| Rated load voltage | | DC 12/24V | |
| Load voltage range | | DC 10.2 ~ 26.4V | |
| Max. load voltage | | 0.2A / 1 point (P20 ~ 23: 0.1A / Point) | |
| Max. inrush current | | 4A / 10ms or less | |
| Max. voltage drop (On) | | DC 0.4V or less | |
| Response time | Off → On | 1ms or less | |
| | On → Off | 1ms or less (Rated load, Resistive load) | |
| Common method | | 8 point / COM | 16 point / COM |
| External power supply | Voltage | DC 12 / 24V $\pm 10\%$ (Ripple voltage 4 Vp-p or less) | |
| | Current | 25mA or less (DC 24V connection) | |
| External connection method | | 20pin connector | |

Wiring | XGB Slim type input/output wiring

Programmable Logic Controller

IXBM-DR16S

(Input wiring(sink/source type)

| Circuit configuration | | No. | Contact | Type |
|------------------------|--|-----|---------|------|
| Terminal block no. | | TB1 | 0 | TB1 |
| | | TB2 | 1 | TB2 |
| | | TB3 | 2 | TB3 |
| | | TB4 | 3 | TB4 |
| | | TB5 | 4 | TB5 |
| | | TB6 | 5 | TB6 |
| | | TB7 | 6 | TB7 |
| | | TB8 | 7 | TB8 |
| | | TB9 | COM | TB9 |

Transistor output wiring

(XBC-DN32H / XEC-DN32H)

| Circuit configuration | | No. | Contact | Type |
|------------------------|--|-----|---------|------|
| Terminal block no. | | TB1 | 20 | TB1 |
| | | TB2 | 21 | TB2 |
| | | TB3 | 22 | TB3 |
| | | TB4 | 23 | TB4 |
| | | TB5 | 24 | TB5 |
| | | TB6 | 25 | TB6 |
| | | TB7 | 26 | TB7 |
| | | TB8 | 27 | TB8 |
| | | TB9 | COM | TB9 |

XBM-DN16S

(Input wiring(sink/source type)

| Circuit configuration | | No. | Contact | No. | Contact | Type |
|------------------------|--|-----|---------|-----|---------|------|
| Terminal block no. | | B10 | 0 | A10 | NC | B10 |
| | | B09 | 1 | A09 | NC | B09 |
| | | B08 | 2 | A08 | NC | B08 |
| | | B07 | 3 | A07 | NC | B07 |
| | | B06 | 4 | A06 | NC | B06 |
| | | B05 | 5 | A05 | NC | B05 |
| | | B04 | 6 | A04 | NC | B04 |
| | | B03 | 7 | A03 | NC | B03 |
| | | B02 | COM | A02 | NC | B02 |
| | | B01 | COM | A01 | NC | B01 |

XBM-DR16S

Transistor output wiring
(sink type)

| Circuit configuration | | No. | Contact | Type |
|-----------------------|-----------|-----|---------|------|
| B10 | 20 | | | |
| B09 | 21 | | | |
| B08 | 22 | | | |
| B07 | 23 | | | |
| B06 | 24 | | | |
| B05 | 25 | | | |
| B04 | 26 | | | |
| B03 | 27 | | | |
| B02 | DC12 /24V | | | |
| B01 | NC | | | |
| A10 | NC | | | |
| A09 | NC | | | |
| A08 | NC | | | |
| A07 | NC | | | |
| A06 | NC | | | |
| A05 | NC | | | |
| A04 | NC | | | |
| A03 | NC | | | |
| A02 | COM | | | |
| A01 | | | | |

XBM-DN16S

(Input wiring(sink/source type)

| Circuit configuration | | No. | Contact | No. | Contact | Type |
|-----------------------|-----|-----|---------|-----|---------|------|
| B10 | 0 | A10 | NC | | | |
| B09 | 1 | A09 | NC | | | |
| B08 | 2 | A08 | NC | | | |
| B07 | 3 | A07 | NC | | | |
| B06 | 4 | A06 | NC | | | |
| B05 | 5 | A05 | NC | | | |
| B04 | 6 | A04 | NC | | | |
| B03 | 7 | A03 | NC | | | |
| B02 | COM | A02 | COM | | | |
| B01 | COM | A01 | COM | | | |

XBM-DR16S

Transistor output wiring
(sink type)

| Circuit configuration | | No. | Contact | Type |
|-----------------------|-----------|-----|---------|------|
| B10 | 20 | | | |
| B09 | 21 | | | |
| B08 | 22 | | | |
| B07 | 23 | | | |
| B06 | 24 | | | |
| B05 | 25 | | | |
| B04 | 26 | | | |
| B03 | 27 | | | |
| B02 | DC12 /24V | | | |
| B01 | NC | | | |
| A10 | 28 | | | |
| A09 | 29 | | | |
| A08 | 2A | | | |
| A07 | 2B | | | |
| A06 | 2C | | | |
| A05 | 2D | | | |
| A04 | 2E | | | |
| A03 | 2F | | | |
| A02 | COM | | | |
| A01 | | | | |

XBC/XEC “E” type input/output wiring

Programmable Logic Controller

XBC/XEC-DR10E
XBC/XEC-DN10E
XBC/XEC-DP10E
DC24V Input wiring
(sink/source type)

| Circuit configuration | | No. | Contact | No. | Contact | Type | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|------|------|---------|-----|--|------|----|-----|------|--|-----|------|--|-----|-----|--|-----|-----|--|-----|-----|--|------|----|--|------|-----|-----|--|----|--|--|----|--|--|-----|-----|--|----|--|--|----|--|--|-----|-----|--|
| <p>Terminal block no.</p> | TB2 | 485+ | TB1 | RX | <table border="1"> <tr><td>(⊕)</td><td>TX</td><td>TB1</td></tr> <tr><td>485+</td><td></td><td>TB3</td></tr> <tr><td>485-</td><td></td><td>TB5</td></tr> <tr><td>P00</td><td></td><td>TB7</td></tr> <tr><td>P02</td><td></td><td>TB9</td></tr> <tr><td>P04</td><td></td><td>TB11</td></tr> <tr><td>NC</td><td></td><td>TB13</td></tr> <tr><td>COM</td><td>(⊕)</td><td></td></tr> <tr><td>NC</td><td></td><td></td></tr> <tr><td>NC</td><td></td><td></td></tr> <tr><td>COM</td><td>(⊕)</td><td></td></tr> <tr><td>NC</td><td></td><td></td></tr> <tr><td>NC</td><td></td><td></td></tr> <tr><td>COM</td><td>(⊕)</td><td></td></tr> </table> | (⊕) | TX | TB1 | 485+ | | TB3 | 485- | | TB5 | P00 | | TB7 | P02 | | TB9 | P04 | | TB11 | NC | | TB13 | COM | (⊕) | | NC | | | NC | | | COM | (⊕) | | NC | | | NC | | | COM | (⊕) | |
| (⊕) | TX | TB1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 485+ | | TB3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 485- | | TB5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P00 | | TB7 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P02 | | TB9 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P04 | | TB11 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NC | | TB13 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| COM | (⊕) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NC | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NC | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| COM | (⊕) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NC | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NC | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| COM | (⊕) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TB4 | 485- | TB3 | TX | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TB6 | 00 | TB5 | SG | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TB8 | 02 | TB7 | 01 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TB10 | 04 | TB9 | 03 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TB12 | NC | TB11 | 05 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TB14 | COM | TB13 | NC | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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XBC/XEC-DR10E
Relay output wiring

| Circuit configuration | | No. | Contact | No. | Contact | Type | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|-------|------|---------|-------|---|------|-------|-----|----|-------|-----|------|-----|-----|------|-----|-----|------|-----|-----|----|-----|------|----|----|------|-----|-----|------|-----|-----|------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| <p>Internal circuit</p> <p>Terminal block no.</p> | TB2 | FG | TB1 | AC100 | <table border="1"> <tr><td>(⊕)</td><td>AC100</td><td>TB1</td></tr> <tr><td>FG</td><td>-240V</td><td>TB3</td></tr> <tr><td>COM0</td><td>P40</td><td>TB5</td></tr> <tr><td>COM1</td><td>P41</td><td>TB7</td></tr> <tr><td>COM2</td><td>P42</td><td>TB9</td></tr> <tr><td>43</td><td>P43</td><td>TB10</td></tr> <tr><td>NC</td><td>NC</td><td>TB11</td></tr> <tr><td>24G</td><td>24V</td><td>TB13</td></tr> <tr><td>24G</td><td>(⊕)</td><td>TB15</td></tr> <tr><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td></tr> </table> | (⊕) | AC100 | TB1 | FG | -240V | TB3 | COM0 | P40 | TB5 | COM1 | P41 | TB7 | COM2 | P42 | TB9 | 43 | P43 | TB10 | NC | NC | TB11 | 24G | 24V | TB13 | 24G | (⊕) | TB15 | | | | | | | | | | | | | | | |
| (⊕) | AC100 | TB1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FG | -240V | TB3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| COM0 | P40 | TB5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| COM1 | P41 | TB7 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| COM2 | P42 | TB9 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 43 | P43 | TB10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NC | NC | TB11 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 24G | 24V | TB13 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 24G | (⊕) | TB15 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| TB4 | COM0 | TB3 | -240V | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TB6 | COM1 | TB5 | 40 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TB7 | | TB7 | 41 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TB8 | COM2 | TB8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TB10 | | TB10 | 42 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TB11 | NC | TB11 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TB12 | | TB12 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TB13 | 24V | TB13 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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XBC/XEC-DN10E
Transistor output wiring
(sink type)

| Circuit configuration | | No. | Contact | No. | Contact | Type | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|-------|------|---------|-------|---|------|-------|-----|----|-------|-----|---|-----|-----|------|-----|-----|------|-----|-----|-----|----|------|----|-----|------|-----|-----|------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| <p>Internal circuit</p> <p>Terminal block no.</p> | TB2 | FG | TB1 | AC100 | <table border="1"> <tr><td>(⊕)</td><td>AC100</td><td>TB1</td></tr> <tr><td>FG</td><td>-240V</td><td>TB3</td></tr> <tr><td>P</td><td>Q00</td><td>TB5</td></tr> <tr><td>COM0</td><td>Q01</td><td>TB7</td></tr> <tr><td>COM1</td><td>Q02</td><td>TB9</td></tr> <tr><td>Q03</td><td>NC</td><td>TB11</td></tr> <tr><td>NC</td><td>24V</td><td>TB13</td></tr> <tr><td>24G</td><td>(⊕)</td><td>TB15</td></tr> <tr><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td></tr> </table> | (⊕) | AC100 | TB1 | FG | -240V | TB3 | P | Q00 | TB5 | COM0 | Q01 | TB7 | COM1 | Q02 | TB9 | Q03 | NC | TB11 | NC | 24V | TB13 | 24G | (⊕) | TB15 | | | | | | | | | | | | | | | | | | |
| (⊕) | AC100 | TB1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FG | -240V | TB3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | Q00 | TB5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| COM0 | Q01 | TB7 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| COM1 | Q02 | TB9 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Q03 | NC | TB11 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NC | 24V | TB13 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 24G | (⊕) | TB15 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| TB4 | P | TB3 | -240V | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TB6 | COM0 | TB5 | Q00 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TB7 | | TB7 | Q01 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TB8 | COM1 | TB8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TB10 | Q03 | TB10 | Q02 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TB11 | NC | TB11 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TB12 | | TB12 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TB13 | 24V | TB13 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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XBC/XEC-DP10E
Transistor output wiring
(source type)

| Circuit configuration | | No. | Contact | No. | Contact | Type | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|-------|------|---------|-------|---|------|-------|-----|----|-------|-----|---|-----|-----|------|-----|-----|------|-----|-----|-----|----|------|----|-----|------|-----|-----|------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| <p>Internal circuit</p> <p>Terminal block no.</p> | TB2 | FG | TB1 | AC100 | <table border="1"> <tr><td>(⊕)</td><td>AC100</td><td>TB1</td></tr> <tr><td>FG</td><td>-240V</td><td>TB3</td></tr> <tr><td>N</td><td>Q00</td><td>TB5</td></tr> <tr><td>COM0</td><td>Q01</td><td>TB7</td></tr> <tr><td>COM1</td><td>Q02</td><td>TB9</td></tr> <tr><td>Q03</td><td>NC</td><td>TB11</td></tr> <tr><td>NC</td><td>24V</td><td>TB13</td></tr> <tr><td>24G</td><td>(⊕)</td><td>TB15</td></tr> <tr><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td></tr> </table> | (⊕) | AC100 | TB1 | FG | -240V | TB3 | N | Q00 | TB5 | COM0 | Q01 | TB7 | COM1 | Q02 | TB9 | Q03 | NC | TB11 | NC | 24V | TB13 | 24G | (⊕) | TB15 | | | | | | | | | | | | | | | | | | |
| (⊕) | AC100 | TB1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FG | -240V | TB3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| N | Q00 | TB5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| COM0 | Q01 | TB7 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| COM1 | Q02 | TB9 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Q03 | NC | TB11 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NC | 24V | TB13 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 24G | (⊕) | TB15 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| TB4 | N | TB3 | -240V | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TB6 | COM0 | TB5 | Q00 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TB7 | | TB7 | Q01 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TB8 | COM1 | TB8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TB10 | Q03 | TB10 | Q02 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TB11 | NC | TB11 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TB12 | | TB12 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TB13 | 24V | TB13 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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* XBC input : P00~P11, XEC input : I00~I17 * XBC output : P40~P4B, XEC output : Q00~Q11

XBC/XEC-DR14E
XBC/XEC-DN14E
XBC/XEC-DP14E
DC24V Input wiring
(sink/source type)

| Circuit configuration | | No. | Contact | No. | Contact | Type | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|--|------|---------|-----|---------|------|--|--|-----|------|-----|----|--|--|--|-----|----|-----|----|--|--|--|-----|----|-----|----|--|--|--|------|----|-----|----|--|--|--|------|----|------|----|--|--|--|------|-----|------|----|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|-----|------|-----|----|--|--|--|-----|------|-----|----|--|--|--|-----|----|-----|----|--|--|--|-----|----|-----|----|--|--|--|------|----|-----|----|--|--|--|------|----|------|----|--|--|--|------|-----|------|----|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| <p>Terminal block no.</p> | <table border="1"> <tr> <td>TB2</td> <td>485+</td> <td>TB1</td> <td>RX</td> <td></td> <td></td> <td></td> </tr> <tr> <td>TB4</td> <td>485-</td> <td>TB3</td> <td>TX</td> <td></td> <td></td> <td></td> </tr> <tr> <td>TB6</td> <td>00</td> <td>TB5</td> <td>SG</td> <td></td> <td></td> <td></td> </tr> <tr> <td>TB8</td> <td>02</td> <td>TB7</td> <td>01</td> <td></td> <td></td> <td></td> </tr> <tr> <td>TB10</td> <td>04</td> <td>TB9</td> <td>03</td> <td></td> <td></td> <td></td> </tr> <tr> <td>TB12</td> <td>06</td> <td>TB11</td> <td>05</td> <td></td> <td></td> <td></td> </tr> <tr> <td>TB14</td> <td>COM</td> <td>TB13</td> <td>07</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table> | TB2 | 485+ | TB1 | RX | | | | TB4 | 485- | TB3 | TX | | | | TB6 | 00 | TB5 | SG | | | | TB8 | 02 | TB7 | 01 | | | | TB10 | 04 | TB9 | 03 | | | | TB12 | 06 | TB11 | 05 | | | | TB14 | COM | TB13 | 07 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | <table border="1"> <tr> <td>TB2</td> <td>485+</td> <td>TB1</td> <td>RX</td> <td></td> <td></td> <td></td> </tr> <tr> <td>TB4</td> <td>485-</td> <td>TB3</td> <td>TX</td> <td></td> <td></td> <td></td> </tr> <tr> <td>TB6</td> <td>00</td> <td>TB5</td> <td>SG</td> <td></td> <td></td> <td></td> </tr> <tr> <td>TB8</td> <td>02</td> <td>TB7</td> <td>01</td> <td></td> <td></td> <td></td> </tr> <tr> <td>TB10</td> <td>04</td> <td>TB9</td> <td>03</td> <td></td> <td></td> <td></td> </tr> <tr> <td>TB12</td> <td>06</td> <td>TB11</td> <td>05</td> <td></td> <td></td> <td></td> </tr> <tr> <td>TB14</td> <td>COM</td> <td>TB13</td> <td>07</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table> | TB2 | 485+ | TB1 | RX | | | | TB4 | 485- | TB3 | TX | | | | TB6 | 00 | TB5 | SG | | | | TB8 | 02 | TB7 | 01 | | | | TB10 | 04 | TB9 | 03 | | | | TB12 | 06 | TB11 | 05 | | | | TB14 | COM | TB13 | 07 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TB2 | 485+ | TB1 | RX | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TB4 | 485- | TB3 | TX | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TB6 | 00 | TB5 | SG | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TB8 | 02 | TB7 | 01 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TB10 | 04 | TB9 | 03 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TB12 | 06 | TB11 | 05 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TB14 | COM | TB13 | 07 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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XBC-DR14E
Transistor output wiring
(sink type)

| Circuit configuration | | No. | Contact | No. | Contact | Type | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|--|------|---------|-----|---------|------|--|--|--|--|--|-------|--|--|--|-----|------|-----|--|--|--|--|--|--|--|--|--|--|--|-----|------|-----|----|--|--|--|--|--|--|--|--|--|--|-----|------|-----|----|--|--|--|--|--|--|--|--|--|--|------|----|-----|----|--|--|--|--|--|--|--|--|--|--|------|----|------|----|--|--|--|--|--|--|--|--|--|--|------|-----|------|-----|--|--|--|--|--|--|--|--|--|--|--|-----|----|-----|-------|--|--|--|--|--|--|-------|--|--|--|-----|------|-----|--|--|--|--|--|--|--|--|--|--|--|-----|------|-----|----|--|--|--|--|--|--|--|--|--|--|-----|------|-----|----|--|--|--|--|--|--|--|--|--|--|------|----|-----|----|--|--|--|--|--|--|--|--|--|--|------|----|------|----|--|--|--|--|--|--|--|--|--|--|------|-----|------|-----|--|--|--|--|--|--|--|--|--|--|
| <p>Terminal block no.</p> | <table border="1"> <tr> <td>TB2</td> <td>FG</td> <td>TB1</td> <td>AC100</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td>-240V</td> <td></td> <td></td> <td></td> </tr> <tr> <td>TB4</td> <td>COM0</td> <td>TB3</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>TB6</td> <td>COM1</td> <td>TB5</td> <td>40</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>TB8</td> <td>COM2</td> <td>TB7</td> <td>41</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>TB10</td> <td>43</td> <td>TB9</td> <td>42</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>TB12</td> <td>NC</td> <td>TB11</td> <td>NC</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>TB14</td> <td>24G</td> <td>TB13</td> <td>24V</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table> | TB2 | FG | TB1 | AC100 | | | | | | | -240V | | | | TB4 | COM0 | TB3 | | | | | | | | | | | | TB6 | COM1 | TB5 | 40 | | | | | | | | | | | TB8 | COM2 | TB7 | 41 | | | | | | | | | | | TB10 | 43 | TB9 | 42 | | | | | | | | | | | TB12 | NC | TB11 | NC | | | | | | | | | | | TB14 | 24G | TB13 | 24V | | | | | | | | | | | <table border="1"> <tr> <td>TB2</td> <td>FG</td> <td>TB1</td> <td>AC100</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td>-240V</td> <td></td> <td></td> <td></td> </tr> <tr> <td>TB4</td> <td>COM0</td> <td>TB3</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>TB6</td> <td>COM1</td> <td>TB5</td> <td>40</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>TB8</td> <td>COM2</td> <td>TB7</td> <td>41</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>TB10</td> <td>43</td> <td>TB9</td> <td>42</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>TB12</td> <td>NC</td> <td>TB11</td> <td>NC</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>TB14</td> <td>24G</td> <td>TB13</td> <td>24V</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table> | TB2 | FG | TB1 | AC100 | | | | | | | -240V | | | | TB4 | COM0 | TB3 | | | | | | | | | | | | TB6 | COM1 | TB5 | 40 | | | | | | | | | | | TB8 | COM2 | TB7 | 41 | | | | | | | | | | | TB10 | 43 | TB9 | 42 | | | | | | | | | | | TB12 | NC | TB11 | NC | | | | | | | | | | | TB14 | 24G | TB13 | 24V | | | | | | | | | | |
| TB2 | FG | TB1 | AC100 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| TB8 | COM2 | TB7 | 41 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| TB10 | 43 | TB9 | 42 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| TB12 | NC | TB11 | NC | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| TB14 | 24G | TB13 | 24V | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| TB10 | 43 | TB9 | 42 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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XBC/XEC-DN14E
Transistor output wiring
(sink type)

| Circuit configuration | | No. | Contact | No. | Contact | Type | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| <p>Terminal block no.</p> | <table border="1"> <tr> <td>TB2</td> <td>FG</td> <td>TB1</td> <td>AC100</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td>-240V</td> <td></td> <td></td> <td></td> </tr> <tr> <td>TB4</td> <td>P</td> <td>TB3</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>TB6</td> <td>COM0</td> <td>TB5</td> <td>Q00</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>TB8</td> <td>COM1</td> <td>TB7</td> <td>Q01</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>TB10</td> <td>Q03</td> <td>TB9</td> <td>Q02</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>TB12</td> <td>Q05</td> <td>TB11</td> <td>Q04</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>TB14</td> <td>24G</td> <td>TB13</td> <td>24V</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table> | TB2 | FG | TB1 | AC100 | | | | | | | -240V | | | | TB4 | P | TB3 | | | | | | | | | | | | TB6 | COM0 | TB5 | Q00 | | | | | | | | | | | TB8 | COM1 | TB7 | Q01 | | | | | | | | | | | TB10 | Q03 | TB9 | Q02 | | | | | | | | | | | TB12 | Q05 | TB11 | Q04 | | | | | | | | | | | TB14 | 24G | TB13 | 24V | | | | | | | | | | | <table border="1"> <tr> <td>TB2</td> <td>FG</td> <td>TB1</td> <td>AC100</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td>-240V</td> <td></td> <td></td> <td></td> </tr> <tr> <td>TB4</td> <td>P</td> <td>TB3</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>TB6</td> <td>COM0</td> <td>TB5</td> <td>Q00</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>TB8</td> <td>COM1</td> <td>TB7</td> <td>Q01</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>TB10</td> <td>Q03</td> <td>TB9</td> <td>Q02</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>TB12</td> <td>Q05</td> <td>TB11</td> <td>Q04</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>TB14</td> <td>24G</td> <td>TB13</td> <td>24V</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table> | TB2 | FG | TB1 | AC100 | | | | | | | -240V | | | | TB4 | P | TB3 | | | | | | | | | | | | TB6 | COM0 | TB5 | Q00 | | | | | | | | | | | TB8 | COM1 | TB7 | Q01 | | | | | | | | | | | TB10 | Q03 | TB9 | Q02 | | | | | | | | | | | TB12 | Q05 | TB11 | Q04 | | | | | | | | | | | TB14 | 24G | TB13 | 24V | | | | | | | | | | |
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XBC/XEC-DP14E
Transistor output wiring
(source type)

| Circuit configuration | | No. | Contact | No. | Contact | Type | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| <p>Terminal block no.</p> | <table border="1"> <tr> <td>TB2</td> <td>FG</td> <td>TB1</td> <td>AC100</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td>-240V</td> <td></td> <td></td> <td></td> </tr> <tr> <td>TB4</td> <td>N</td> <td>TB3</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>TB6</td> <td>COM0</td> <td>TB5</td> <td>Q00</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>TB8</td> <td>COM1</td> <td>TB7</td> <td>Q01</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>TB10</td> <td>Q03</td> <td>TB9</td> <td>Q02</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>TB12</td> <td>Q05</td> <td>TB11</td> <td>Q04</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>TB14</td> <td>24G</td> <td>TB13</td> <td>24V</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table> | TB2 | FG | TB1 | AC100 | | | | | | | -240V | | | | TB4 | N | TB3 | | | | | | | | | | | | TB6 | COM0 | TB5 | Q00 | | | | | | | | | | | TB8 | COM1 | TB7 | Q01 | | | | | | | | | | | TB10 | Q03 | TB9 | Q02 | | | | | | | | | | | TB12 | Q05 | TB11 | Q04 | | | | | | | | | | | TB14 | 24G | TB13 | 24V | | | | | | | | | | | <table border="1"> <tr> <td>TB2</td> <td>FG</td> <td>TB1</td> <td>AC100</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td>-240V</td> <td></td> <td></td> <td></td> </tr> <tr> <td>TB4</td> <td>N</td> <td>TB3</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>TB6</td> <td>COM0</td> <td>TB5</td> <td>Q00</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>TB8</td> <td>COM1</td> <td>TB7</td> <td>Q01</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>TB10</td> <td>Q03</td> <td>TB9</td> <td>Q02</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>TB12</td> <td>Q05</td> <td>TB11</td> <td>Q04</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>TB14</td> <td>24G</td> <td>TB13</td> <td>24V</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table> | TB2 | FG | TB1 | AC100 | | | | | | | -240V | | | | TB4 | N | TB3 | | | | | | | | | | | | TB6 | COM0 | TB5 | Q00 | | | | | | | | | | | TB8 | COM1 | TB7 | Q01 | | | | | | | | | | | TB10 | Q03 | TB9 | Q02 | | | | | | | | | | | TB12 | Q05 | TB11 | Q04 | | | | | | | | | | | TB14 | 24G | TB13 | 24V | | | | | | | | | | |
| TB2 | FG | TB1 | AC100 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| TB4 | N | TB3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| TB6 | COM0 | TB5 | Q00 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| TB8 | COM1 | TB7 | Q01 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| TB10 | Q03 | TB9 | Q02 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| TB12 | Q05 | TB11 | Q04 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| TB14 | 24G | TB13 | 24V | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| TB2 | FG | TB1 | AC100 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| TB4 | N | TB3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| TB6 | COM0 | TB5 | Q00 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| TB8 | COM1 | TB7 | Q01 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| TB10 | Q03 | TB9 | Q02 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| TB12 | Q05 | TB11 | Q04 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| TB14 | 24G | TB13 | 24V | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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* XBC input : P00~P11, XEC input : I00~I17 * XBC output : P40~P4B, XEC output : Q00~Q11

XBC/XEC-DR20E
XBC/XEC-DN20E
XBC/XEC-DP20E
DC24V Input wiring
(sink/source type)

| Circuit configuration | | No. | Contact | No. | Contact | Type |
|-----------------------|------|------|---------|------|---------|------|
| TB1 | RX | TB2 | 485+ | TB3 | TX | TB1 |
| TB2 | 485+ | TB4 | 485- | TB5 | SG | TB3 |
| TB3 | 00 | TB6 | P00 | TB7 | P01 | TB5 |
| TB4 | 02 | TB8 | P02 | TB9 | P03 | TB7 |
| TB5 | 04 | TB10 | P04 | TB11 | P05 | TB9 |
| TB6 | 06 | TB12 | P06 | TB13 | P07 | TB11 |
| TB7 | 08 | TB14 | P08 | TB15 | P09 | TB13 |
| TB8 | 0A | TB16 | P0A | TB17 | P0B | TB15 |
| TB9 | NC | TB18 | NC | TB19 | NC | TB17 |
| TB10 | NC | TB20 | NC | TB21 | NC | TB19 |
| TB11 | NC | TB22 | NC | TB23 | NC | TB21 |
| TB12 | NC | TB24 | COM | | | TB23 |

XBC-DR20E
Relay output wiring

| Circuit configuration | | No. | Contact | No. | Contact | Type |
|-----------------------|-------|------|---------|------|---------|------|
| TB1 | AC100 | TB2 | FG | TB3 | -240V | TB1 |
| TB2 | -240V | TB4 | COM0 | TB5 | 40 | TB3 |
| TB3 | 40 | TB6 | COM1 | TB7 | 41 | TB5 |
| TB4 | 41 | TB8 | COM2 | TB9 | 42 | TB7 |
| TB5 | 42 | TB10 | 43 | TB11 | NC | TB9 |
| TB6 | 43 | TB12 | 45 | TB13 | 44 | TB11 |
| TB7 | 44 | TB14 | 47 | TB15 | 46 | TB13 |
| TB8 | 46 | TB16 | NC | TB17 | NC | TB16 |
| TB9 | NC | TB18 | NC | TB19 | NC | TB18 |
| TB10 | NC | TB20 | NC | TB21 | NC | TB20 |
| TB11 | NC | TB22 | NC | TB23 | 24V | TB21 |
| TB12 | 24V | TB24 | 24G | | | TB23 |

XBC/XEC-DN20E
Transistor output wiring
(sink type)

| Circuit configuration | | No. | Contact | No. | Contact | Type |
|-----------------------|-------|------|---------|------|---------|------|
| TB1 | AC100 | TB2 | FG | TB3 | -240V | TB1 |
| TB2 | -240V | TB4 | P | TB5 | Q00 | TB3 |
| TB3 | Q00 | TB6 | COM0 | TB7 | Q01 | TB5 |
| TB4 | Q01 | TB8 | COM1 | TB9 | Q02 | TB7 |
| TB5 | Q02 | TB10 | Q03 | TB11 | NC | TB9 |
| TB6 | NC | TB12 | COM2 | TB13 | Q04 | TB11 |
| TB7 | Q04 | TB14 | Q05 | TB15 | Q06 | TB13 |
| TB8 | Q06 | TB16 | Q07 | TB17 | NC | TB15 |
| TB9 | NC | TB18 | NC | TB19 | NC | TB17 |
| TB10 | NC | TB20 | NC | TB21 | NC | TB19 |
| TB11 | NC | TB22 | NC | TB23 | 24V | TB21 |
| TB12 | 24V | TB24 | 24G | | | TB23 |

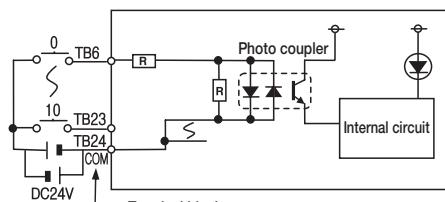
XBC/XEC-DP20E
Transistor output wiring
(source type)

| Circuit configuration | | No. | Contact | No. | Contact | Type |
|-----------------------|-------|------|---------|------|---------|------|
| TB1 | AC100 | TB2 | FG | TB3 | -240V | TB1 |
| TB2 | -240V | TB4 | N | TB5 | Q00 | TB3 |
| TB3 | Q00 | TB6 | COM0 | TB7 | Q01 | TB5 |
| TB4 | Q01 | TB8 | COM1 | TB9 | Q02 | TB7 |
| TB5 | Q02 | TB10 | Q03 | TB11 | NC | TB9 |
| TB6 | NC | TB12 | COM2 | TB13 | Q04 | TB11 |
| TB7 | Q04 | TB14 | Q05 | TB15 | Q06 | TB13 |
| TB8 | Q06 | TB16 | Q07 | TB17 | NC | TB15 |
| TB9 | NC | TB18 | NC | TB19 | NC | TB17 |
| TB10 | NC | TB20 | NC | TB21 | NC | TB19 |
| TB11 | NC | TB22 | NC | TB23 | 24V | TB21 |
| TB12 | 24V | TB24 | 24G | | | TB23 |

* XBC input : P00~P11, XEC input : I00~I17 * XBC output : P40~P4B, XEC output : Q00~Q11

XBC/XEC-DR30E
XBC/XEC-DN30E
XBC/XEC-DP30E
DC24V Input wiring
(sink/source type)

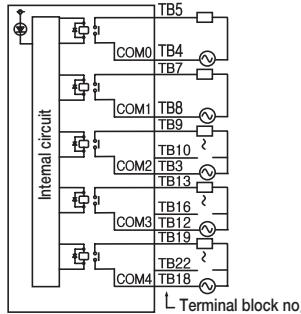
| Circuit configuration | | No. | Contact | No. | Contact | Type |
|-----------------------|------|------|---------|------|---------|------|
| TB2 | 485+ | TB1 | RX | TB2 | 485+ TX | TB1 |
| TB4 | 485- | TB3 | TX | TB3 | 485- SG | TB3 |
| TB6 | 00 | TB5 | SG | TB5 | P00 P01 | TB5 |
| TB8 | 02 | TB7 | 01 | TB7 | P02 P03 | TB7 |
| TB10 | 04 | TB9 | 03 | TB9 | P04 P05 | TB9 |
| TB12 | 06 | TB11 | 05 | TB11 | P06 P07 | TB11 |
| TB14 | 08 | TB13 | 07 | TB13 | P08 P09 | TB13 |
| TB16 | 0A | TB15 | 09 | TB15 | 0A OB | TB17 |
| TB18 | OC | TB17 | 0B | TB17 | OC OD | TB19 |
| TB20 | OE | TB19 | OD | TB19 | OE OF | TB21 |
| TB22 | 10 | TB21 | OF | TB21 | P10 P11 | TB23 |
| TB24 | COM | TB23 | 11 | TB23 | COM | (*) |



Terminal block no.

XBC-DR30E
Relay output wiring

| Circuit configuration | | No. | Contact | No. | Contact | Type |
|-----------------------|------|------|---------|------|----------|------|
| TB5 | FG | TB1 | AC100 | TB2 | FG AC100 | TB1 |
| COM0 | TB4 | TB3 | -240V | TB3 | -240V | TB3 |
| COM1 | TB6 | TB5 | 40 | TB4 | COM0 P40 | TB5 |
| COM2 | TB8 | TB7 | 41 | TB6 | COM1 P41 | TB7 |
| COM3 | TB10 | TB9 | 42 | TB8 | COM2 P42 | TB9 |
| COM4 | TB12 | TB10 | 43 | TB10 | COM3 P43 | TB11 |
| COM5 | TB14 | TB13 | 44 | TB12 | COM4 P44 | TB13 |
| COM6 | TB16 | TB15 | 45 | TB14 | COM5 P45 | TB16 |
| COM7 | TB18 | TB17 | 46 | TB16 | COM6 P46 | TB17 |
| COM8 | TB20 | TB19 | 47 | TB18 | NC NC | TB19 |
| COM9 | TB22 | TB21 | 48 | TB20 | NC NC | TB21 |
| COM10 | TB24 | TB23 | 4A | TB22 | NC 24V | TB23 |
| COM11 | | | 24V | TB24 | 24G (*) | |

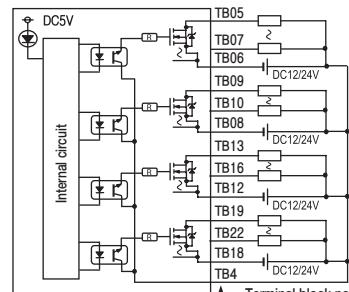


Internal circuit

Terminal block no.

XBC/XEC-DN30E
Transistor output wiring
(sink type)

| Circuit configuration | | No. | Contact | No. | Contact | Type |
|-----------------------|------|------|---------|------|----------|------|
| DC5V | TB5 | TB1 | AC100 | TB2 | FG AC100 | TB1 |
| | TB6 | TB3 | -240V | TB4 | P -240V | TB3 |
| | TB7 | TB5 | Q00 | TB6 | COM0 Q00 | TB5 |
| | TB8 | TB7 | Q01 | TB8 | COM1 Q01 | TB7 |
| | TB9 | TB10 | Q02 | TB10 | COM2 Q02 | TB9 |
| | TB11 | TB12 | NC | TB12 | COM3 NC | TB11 |
| | TB13 | TB14 | Q04 | TB14 | COM4 Q04 | TB13 |
| | TB15 | TB16 | Q06 | TB16 | Q05 Q06 | TB16 |
| | TB17 | TB18 | NC | TB18 | Q07 NC | TB17 |
| | TB19 | TB20 | Q08 | TB20 | Q09 Q08 | TB19 |
| | TB21 | TB22 | Q10 | TB22 | Q11 Q10 | TB21 |
| | TB23 | TB24 | 24V | TB24 | 24G (*) | TB23 |

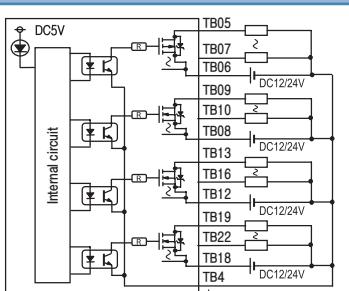


Internal circuit

Terminal block no.

XBC/XEC-DP30E
Transistor output wiring
(source type)

| Circuit configuration | | No. | Contact | No. | Contact | Type |
|-----------------------|------|------|---------|------|----------|------|
| DC5V | TB5 | TB1 | AC100 | TB2 | FG AC100 | TB1 |
| | TB6 | TB3 | -240V | TB4 | P -240V | TB3 |
| | TB7 | TB5 | Q00 | TB6 | COM0 Q00 | TB5 |
| | TB8 | TB7 | Q01 | TB8 | COM1 Q01 | TB7 |
| | TB9 | TB10 | Q02 | TB10 | COM2 Q02 | TB9 |
| | TB11 | TB12 | NC | TB12 | COM3 NC | TB11 |
| | TB13 | TB14 | Q04 | TB14 | COM4 Q04 | TB13 |
| | TB15 | TB16 | Q06 | TB16 | Q05 Q06 | TB16 |
| | TB17 | TB18 | NC | TB18 | Q07 NC | TB17 |
| | TB19 | TB20 | Q08 | TB20 | Q09 Q08 | TB19 |
| | TB21 | TB22 | Q10 | TB22 | Q11 Q10 | TB21 |
| | TB23 | TB24 | 24V | TB24 | 24G (*) | TB23 |



Internal circuit

Terminal block no.

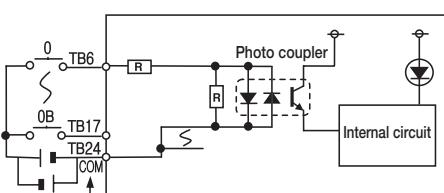
* XBC input : P00~P11, XEC input : I00~I17 * XBC output : P40~P4B, XEC output : Q00~Q11

XBC/XEC "SU" type input/output wiring

Programmable Logic Controller

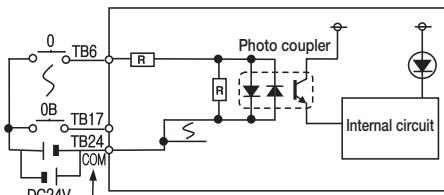
XBC/XEC-DR20SU
XBC/XEC-DN20SU
XBC/XEC-DP20SU
DC24 Input wiring
(sink/source type)

| Circuit configuration | | No. | Contact | No. | Contact | Type |
|-----------------------|------|------|---------|-----|---------|------|
| TB2 | 485+ | TB1 | RX | | | |
| TB4 | 485- | TB3 | TX | | | |
| TB6 | 00 | TB5 | SG | | | |
| TB8 | 02 | TB7 | 01 | | | |
| TB10 | 04 | TB9 | 03 | | | |
| TB12 | 06 | TB11 | 05 | | | |
| TB14 | 08 | TB13 | 07 | | | |
| TB16 | 0A | TB15 | 09 | | | |
| TB18 | NC | TB17 | 0B | | | |
| TB20 | NC | TB19 | NC | | | |
| TB22 | NC | TB21 | NC | | | |
| TB24 | COM | TB23 | NC | | | |



XBC/XEC-DR20SU
Relay output wiring

| Circuit configuration | | No. | Contact | No. | Contact | Type |
|-----------------------|------|------|---------|-----|---------|------|
| TB2 | FG | TB1 | AC100 | | | |
| TB4 | C0M0 | TB3 | -240V | | | |
| TB6 | C0M1 | TB5 | 40 | | | |
| TB8 | C0M2 | TB7 | 41 | | | |
| TB10 | 43 | TB9 | 42 | | | |
| TB12 | COM3 | TB11 | NC | | | |
| TB14 | 45 | TB13 | 44 | | | |
| TB16 | 47 | TB15 | 46 | | | |
| TB18 | NC | TB17 | NC | | | |
| TB20 | NC | TB19 | NC | | | |
| TB22 | NC | TB21 | NC | | | |
| TB24 | 24G | TB23 | 24V | | | |



XBC/XEC-DN20SU
Transistor output wiring
(sink type)

| Circuit configuration | | No. | Contact | No. | Contact | Type |
|-----------------------|------|------|---------|-----|---------|------|
| TB2 | FG | TB1 | AC100 | | | |
| TB4 | C0M0 | TB3 | -240V | | | |
| TB6 | C0M1 | TB5 | 40 | | | |
| TB8 | C0M2 | TB7 | 41 | | | |
| TB10 | 43 | TB9 | 42 | | | |
| TB12 | COM3 | TB11 | P | | | |
| TB14 | 45 | TB13 | 44 | | | |
| TB16 | 47 | TB15 | 46 | | | |
| TB18 | NC | TB17 | NC | | | |
| TB20 | NC | TB19 | NC | | | |
| TB22 | NC | TB21 | NC | | | |
| TB24 | 24G | TB23 | 24V | | | |

* XBC input : P00~P23, XEC input : I00~I35

* XBC output : P40~P57, XEC output : Q00~Q23

XBC/XEC-DP20SU

Transistor output wiring
(source type)

| Circuit configuration | | No. | Contact | No. | Contact | Type |
|-----------------------|------|------|---------|------|---------|------|
| TB2 | FG | TB1 | AC100 | TB2 | ⊕ | TB1 |
| TB4 | COM0 | TB3 | -240V | TB2 | FG | TB3 |
| TB6 | COM1 | TB5 | Q00 | TB4 | COM0 | TB5 |
| TB8 | COM2 | TB7 | Q01 | TB6 | COM1 | TB7 |
| TB10 | Q03 | TB9 | Q02 | TB8 | COM2 | TB9 |
| TB12 | COM3 | TB11 | N | TB10 | Q03 | TB11 |
| TB14 | Q05 | TB13 | Q04 | TB12 | COM3 | TB13 |
| TB16 | Q07 | TB14 | Q06 | TB14 | Q05 | TB15 |
| TB18 | NC | TB15 | Q07 | TB16 | Q07 | TB17 |
| TB20 | NC | TB17 | NC | TB18 | NC | TB17 |
| TB22 | NC | TB19 | NC | TB20 | NC | TB19 |
| TB24 | 24G | TB21 | NC | TB22 | NC | TB21 |
| | | TB23 | 24V | TB24 | ⊕ | TB23 |

XBC/XEC-DR30SU

XBC/XEC-DN30SU

XBC/XEC-DP30SU

DC24 Input wiring
(sink/source type)

| Circuit configuration | | No. | Contact | No. | Contact | Type |
|-----------------------|------|------|---------|------|---------|------|
| TB2 | 485+ | TB1 | RX | TB2 | ⊕ | TB1 |
| TB4 | 485- | TB3 | TX | TB2 | 485+ | TB3 |
| TB6 | 00 | TB5 | SG | TB4 | 485- | TB5 |
| TB8 | 02 | TB7 | 01 | TB6 | P00 | TB7 |
| TB10 | 04 | TB9 | 03 | TB8 | P02 | TB9 |
| TB12 | 06 | TB11 | 05 | TB10 | P04 | TB11 |
| TB14 | 08 | TB13 | 07 | TB12 | P06 | TB13 |
| TB16 | 0A | TB15 | 09 | TB14 | P08 | TB15 |
| TB18 | 0C | TB17 | 0B | TB16 | P A | TB17 |
| TB20 | 0E | TB19 | 0D | TB18 | P0B | TB19 |
| TB22 | 10 | TB21 | 0F | TB20 | 0E | TB21 |
| TB24 | COM | TB23 | 11 | TB22 | P0F | TB21 |
| | | | | TB24 | COM | ⊕ |

XBC/XEC-DR30SU

Relay output wiring

| Circuit configuration | | No. | Contact | No. | Contact | Type |
|-----------------------|------|------|---------|------|---------|------|
| TB2 | FG | TB1 | AC100 | TB2 | ⊕ | TB1 |
| TB4 | COM0 | TB3 | -240V | TB2 | FG | TB3 |
| TB6 | COM1 | TB5 | 40 | TB4 | COM0 | TB5 |
| TB8 | COM2 | TB7 | 41 | TB6 | COM1 | TB7 |
| TB10 | 43 | TB9 | 42 | TB8 | COM2 | TB9 |
| TB12 | COM3 | TB11 | NC | TB10 | P43 | TB11 |
| TB14 | 45 | TB13 | 44 | TB12 | COM3 | TB13 |
| TB16 | 47 | TB15 | 46 | TB14 | P44 | TB15 |
| TB18 | COM4 | TB17 | NC | TB16 | P45 | TB17 |
| TB20 | 49 | TB19 | 48 | TB18 | P47 | TB17 |
| TB22 | 4B | TB21 | 4A | TB20 | COM4 | TB19 |
| TB24 | 24G | TB23 | 24V | TB22 | P49 | TB21 |
| | | | | TB24 | P4B | TB23 |
| | | | | | 24V | ⊕ |

* XBC input : P00~P23, XEC input : I00~I35 * XBC output : P40~P57, XEC output : Q00~Q23

XBC/XEC-DN30SUTransistor output wiring
(sink type)

| Circuit configuration | | No. | Contact | No. | Contact | Type |
|-----------------------|------|------|---------|-------|---------|------|
| TB2 | FG | TB1 | AC100 | | | |
| TB4 | COM0 | TB2 | FG | AC100 | -240V | TB1 |
| TB6 | COM1 | TB3 | -240V | | | TB3 |
| TB8 | COM2 | TB4 | COM0 | P40 | | TB5 |
| TB10 | 43 | TB5 | 40 | | | TB7 |
| TB12 | COM3 | TB6 | COM1 | P41 | | TB9 |
| TB14 | 45 | TB7 | 41 | | | TB11 |
| TB16 | 47 | TB8 | COM2 | P42 | | TB13 |
| TB18 | COM4 | TB9 | 42 | | | TB15 |
| TB20 | 49 | TB10 | P | | | TB17 |
| TB22 | 4B | TB11 | 44 | | | TB19 |
| TB24 | 24G | TB12 | COM3 | P44 | | TB21 |
| | | TB13 | 46 | | | TB23 |
| | | TB14 | NC | | | |
| | | TB15 | 48 | | | |
| | | TB16 | 4A | | | |
| | | TB17 | 24V | | | |
| | | TB18 | 24G | | | |

XBC/XEC-DP30SUTransistor output wiring
(source type)

| Circuit configuration | | No. | Contact | No. | Contact | Type |
|-----------------------|------|------|---------|-------|---------|------|
| TB2 | FG | TB1 | AC100 | | | |
| TB4 | COM0 | TB2 | FG | AC100 | -240V | TB1 |
| TB6 | COM1 | TB3 | -240V | | | TB3 |
| TB8 | COM2 | TB4 | COM0 | Q00 | | TB5 |
| TB10 | Q03 | TB5 | Q01 | | | TB7 |
| TB12 | COM3 | TB6 | COM1 | Q02 | | TB9 |
| TB14 | Q05 | TB7 | Q03 | | | TB11 |
| TB16 | Q07 | TB8 | COM2 | N | | TB13 |
| TB18 | COM4 | TB9 | Q04 | | | TB15 |
| TB20 | Q09 | TB10 | Q06 | | | TB17 |
| TB22 | Q11 | TB11 | NC | | | TB19 |
| TB24 | 24G | TB12 | COM3 | Q08 | | TB21 |
| | | TB13 | Q09 | Q10 | | TB23 |
| | | TB14 | Q11 | 24V | | |
| | | TB15 | 24G | | | |
| | | TB16 | 24G | | | |
| | | TB17 | 24G | | | |
| | | TB18 | 24G | | | |
| | | TB19 | 24G | | | |
| | | TB20 | 24G | | | |
| | | TB21 | 24G | | | |
| | | TB22 | 24G | | | |
| | | TB23 | 24G | | | |

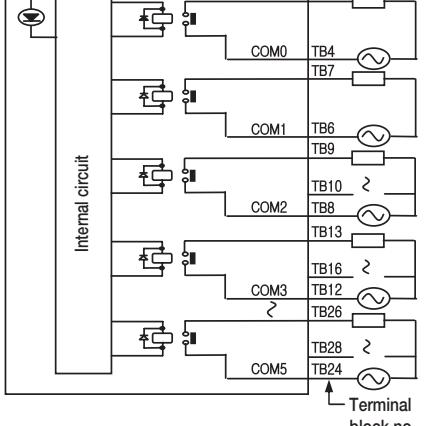
XBC/XEC-DR40SU**XBC/XEC-DN40SU****XBC/XEC-DP40SU**DC24 Input wiring
(sink/source type)

| Circuit configuration | | No. | Contact | No. | Contact | Type |
|-----------------------|------|------|---------|-----|---------|------|
| TB2 | 485+ | TB1 | RX | | | |
| TB4 | 485- | TB2 | TX | | | |
| TB6 | 00 | TB3 | SG | | | |
| TB8 | 02 | TB4 | 485- | | | |
| TB10 | 04 | TB5 | SG | | | |
| TB12 | 06 | TB6 | 00 | | | |
| TB14 | 08 | TB7 | 01 | | | |
| TB16 | 0A | TB8 | 02 | | | |
| TB18 | 0C | TB9 | 03 | | | |
| TB20 | 0E | TB10 | 04 | | | |
| TB22 | 10 | TB11 | 05 | | | |
| TB24 | 12 | TB12 | 06 | | | |
| TB26 | 14 | TB13 | 07 | | | |
| TB28 | 16 | TB14 | 09 | | | |
| TB30 | COM | TB15 | 0B | | | |
| | | TB16 | 0D | | | |
| | | TB17 | 0F | | | |
| | | TB18 | 11 | | | |
| | | TB19 | 13 | | | |
| | | TB20 | 15 | | | |
| | | TB21 | 17 | | | |

* XBC input : P00~P23, XEC input : I00~I35 * XBC output : P40~P57, XEC output : Q00~Q23

XBC/XEC-DR40SU
Relay output wiring

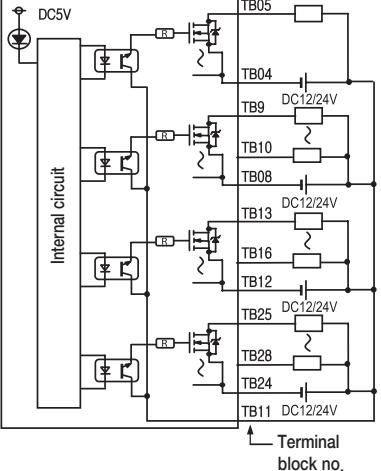
| Circuit configuration | | No. | Contact | No. | Contact | Type |
|-----------------------|------|------|---------|-----|---------|------|
| TB2 | FG | TB1 | AC100 | | | |
| TB4 | COM0 | TB3 | -240V | | | |
| TB6 | COM1 | TB5 | P40 | | | |
| TB8 | COM2 | TB7 | P41 | | | |
| TB10 | 43 | TB9 | P42 | | | |
| TB12 | COM3 | TB11 | NC | | | |
| TB14 | 45 | TB13 | P44 | | | |
| TB16 | 47 | TB15 | P46 | | | |
| TB18 | COM4 | TB17 | NC | | | |
| TB20 | 49 | TB19 | P48 | | | |
| TB22 | 4B | TB21 | P4A | | | |
| TB24 | COM5 | TB23 | NC | | | |
| TB26 | 4D | TB25 | P4C | | | |
| TB28 | 4F | TB27 | P4E | | | |
| TB30 | 24G | TB29 | 24V | | | |



Terminal block no.

XBC/XEC-DN40SU
Transistor output wiring
(sink type)

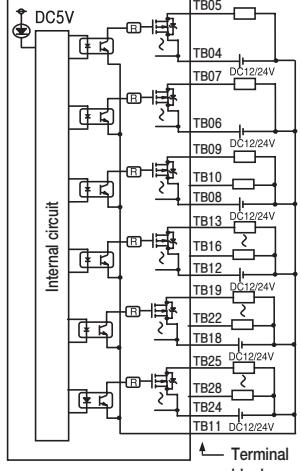
| Circuit configuration | | No. | Contact | No. | Contact | Type |
|-----------------------|------|------|---------|-----|---------|------|
| TB2 | FG | TB1 | AC100 | | | |
| TB4 | COM0 | TB3 | -240V | | | |
| TB6 | COM1 | TB5 | 40 | | | |
| TB8 | COM2 | TB7 | 41 | | | |
| TB10 | 43 | TB9 | 42 | | | |
| TB12 | COM3 | TB11 | P | | | |
| TB14 | 45 | TB13 | 44 | | | |
| TB16 | 47 | TB15 | 46 | | | |
| TB18 | COM4 | TB17 | NC | | | |
| TB20 | 49 | TB19 | 48 | | | |
| TB22 | 4B | TB21 | 4A | | | |
| TB24 | COM5 | TB23 | NC | | | |
| TB26 | 4D | TB25 | 4C | | | |
| TB28 | 4F | TB27 | 4E | | | |
| TB30 | 24G | TB29 | 24V | | | |



Terminal block no.

XBC/XEC-DP40SU
Transistor output wiring
(source type)

| Circuit configuration | | No. | Contact | No. | Contact | Type |
|-----------------------|------|------|---------|-----|---------|------|
| TB2 | FG | TB1 | AC100 | | | |
| TB4 | COM0 | TB3 | -240V | | | |
| TB6 | COM1 | TB5 | Q00 | | | |
| TB8 | COM2 | TB7 | Q01 | | | |
| TB10 | Q03 | TB9 | Q02 | | | |
| TB12 | COM3 | TB11 | N | | | |
| TB14 | Q05 | TB13 | Q04 | | | |
| TB16 | Q07 | TB15 | Q06 | | | |
| TB18 | COM4 | TB17 | NC | | | |
| TB20 | Q09 | TB19 | Q08 | | | |
| TB22 | Q11 | TB21 | Q10 | | | |
| TB24 | COM5 | TB23 | NC | | | |
| TB26 | Q13 | TB25 | Q12 | | | |
| TB28 | Q15 | TB27 | Q14 | | | |
| TB30 | 24G | TB29 | 24V | | | |



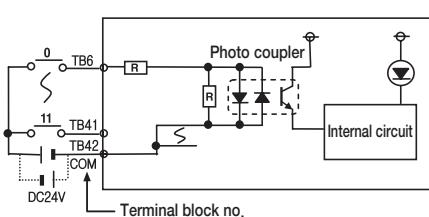
Terminal block no.

* XBC input : P00~P23, XEC input : I00~I35 * XBC output : P40~P57, XEC output : Q00~Q23

XBC/XEC-DR60SU
XBC/XEC-DN60SU
XBC/XEC-DP60SU

DC24 Input wiring
(sink/source type)

| Circuit configuration | | No. | Contact | No. | Contact | Type |
|-----------------------|------|------|---------|-----|---------|------|
| TB2 | 485+ | TB1 | RX | | | |
| TB4 | 485- | TB3 | TX | | | |
| TB6 | 00 | TB5 | SG | | | |
| TB8 | 02 | TB7 | 01 | | | |
| TB10 | 04 | TB9 | 03 | | | |
| TB12 | 06 | TB11 | 05 | | | |
| TB14 | 08 | TB13 | 07 | | | |
| TB16 | 0A | TB15 | 09 | | | |
| TB18 | 0C | TB17 | 0B | | | |
| TB20 | 0E | TB19 | 0D | | | |
| TB22 | 10 | TB21 | 0F | | | |
| TB24 | 12 | TB23 | 11 | | | |
| TB26 | 14 | TB25 | 13 | | | |
| TB28 | 16 | TB27 | 15 | | | |
| TB30 | 18 | TB29 | 17 | | | |
| TB32 | 1A | TB31 | 19 | | | |
| TB34 | 1C | TB33 | 1B | | | |
| TB36 | 1E | TB35 | 1D | | | |
| TB38 | 20 | TB37 | 1F | | | |
| TB40 | 22 | TB39 | 21 | | | |
| TB42 | COM | TB41 | 23 | | | |

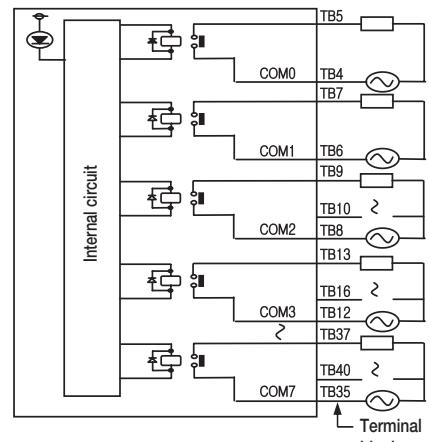


XBC/XEC-DR60SU
Relay output wiring

| Circuit configuration | | No. | Contact | No. | Contact | Type |
|-----------------------|------|------|---------|-----|---------|------|
| TB2 | FG | TB1 | AC100 | | | |
| TB4 | COM0 | TB3 | -240V | | | |
| TB6 | COM1 | TB5 | 40 | | | |
| TB8 | COM2 | TB7 | 41 | | | |
| TB10 | 43 | TB9 | 42 | | | |
| TB12 | COM3 | TB11 | NC | | | |
| TB14 | 45 | TB13 | 44 | | | |
| TB16 | 47 | TB15 | 46 | | | |
| TB18 | COM4 | TB17 | NC | | | |
| TB20 | 49 | TB19 | 48 | | | |
| TB22 | 4B | TB21 | 4A | | | |
| TB24 | COM5 | TB23 | NC | | | |
| TB26 | 4D | TB25 | 4C | | | |
| TB28 | 4F | TB27 | 4E | | | |
| TB30 | COM6 | TB29 | NC | | | |
| TB32 | 51 | TB31 | 50 | | | |
| TB34 | 53 | TB33 | 52 | | | |
| TB36 | COM7 | TB35 | NC | | | |
| TB38 | 55 | TB37 | 54 | | | |
| TB40 | 57 | TB39 | 56 | | | |
| TB42 | 24G | TB41 | 24V | | | |

* XBC input : P00~P23, XEC input : I00~I35

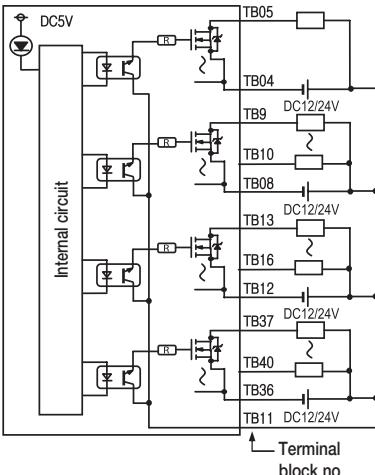
* XBC output : P40~P57, XEC output : Q00~Q23



XBC/XEC-DN60SU

Transistor output wiring
(sink type)

| Circuit configuration | | No. | Contact | No. | Contact | Type |
|-----------------------|------|------|---------|-----|---------|------|
| TB2 | FG | TB1 | AC100 | | | |
| TB4 | COM0 | TB3 | -240V | | | |
| TB6 | COM1 | TB5 | 40 | | | |
| TB8 | COM2 | TB7 | 41 | | | |
| TB10 | 43 | TB9 | 42 | | | |
| TB12 | COM3 | TB11 | P | | | |
| TB14 | 45 | TB13 | 44 | | | |
| TB16 | 47 | TB15 | 46 | | | |
| TB18 | COM4 | TB17 | NC | | | |
| TB20 | 49 | TB19 | 48 | | | |
| TB22 | 4B | TB21 | 4A | | | |
| TB24 | COM5 | TB23 | NC | | | |
| TB26 | 4D | TB25 | 4C | | | |
| TB28 | 4F | TB27 | 4E | | | |
| TB30 | COM6 | TB29 | NC | | | |
| TB32 | 51 | TB31 | 50 | | | |
| TB34 | 53 | TB33 | 52 | | | |
| TB36 | COM7 | TB35 | NC | | | |
| TB38 | 55 | TB37 | 54 | | | |
| TB40 | 57 | TB39 | 56 | | | |
| TB42 | 24G | TB41 | 24V | | | |



XBC/XEC-DP60SU

Transistor output wiring
(source type)

| Circuit configuration | | No. | Contact | No. | Contact | Type |
|-----------------------|------|------|---------|-----|---------|------|
| TB2 | FG | TB1 | AC100 | | | |
| TB4 | COM0 | TB3 | -240V | | | |
| TB6 | COM1 | TB5 | Q00 | | | |
| TB8 | COM2 | TB7 | Q01 | | | |
| TB10 | Q03 | TB9 | Q02 | | | |
| TB12 | COM3 | TB11 | N | | | |
| TB14 | Q05 | TB13 | Q04 | | | |
| TB16 | Q07 | TB15 | Q06 | | | |
| TB18 | COM4 | TB17 | NC | | | |
| TB20 | Q09 | TB19 | Q08 | | | |
| TB22 | Q11 | TB21 | Q10 | | | |
| TB24 | COM5 | TB23 | NC | | | |
| TB26 | Q13 | TB25 | Q12 | | | |
| TB28 | Q15 | TB27 | Q14 | | | |
| TB30 | COM6 | TB29 | NC | | | |
| TB32 | Q17 | TB31 | Q16 | | | |
| TB34 | Q19 | TB33 | Q18 | | | |
| TB36 | COM7 | TB35 | NC | | | |
| TB38 | Q21 | TB37 | Q20 | | | |
| TB40 | Q23 | TB39 | Q22 | | | |
| TB42 | 24G | TB41 | 24V | | | |

* XBC input : P00~P23, XEC input : I00~I35

* XBC output : P40~P57, XEC output : Q00~Q23

XBC/XEC “H” type input/output wiring

Programmable Logic Controller

XBC/XEC-DN(R)32H
XBC/XEC-DN/DR/DP32H
Input wiring
(sink/source type)

| Circuit configuration | | No. | Contact | No. | Contact | Type |
|-----------------------|------|------|---------|-----|---------|------|
| TB2 | 485+ | TB1 | RX | | | TB1 |
| TB4 | 485- | TB3 | TX | | | TB3 |
| TB6 | 00 | TB5 | SG | | | TB5 |
| TB8 | 02 | TB7 | 01 | | | TB7 |
| TB10 | 04 | TB9 | 03 | | | TB9 |
| TB12 | 06 | TB11 | 05 | | | TB1 |
| TB14 | 08 | TB13 | 07 | | | TB1 |
| TB16 | 0A | TB15 | 09 | | | TB1 |
| TB18 | 0C | TB17 | 0B | | | TB1 |
| TB20 | 0E | TB19 | 0D | | | TB1 |
| TB22 | COM | TB21 | 0F | | | TB2 |
| TB24 | 24V | TB23 | 24G | | | TB2 |
| | | TB3 | 24V | | | TB3 |
| | | | ⊕ | | | |

XBC/XEC-DR32H
Relay output wiring type

| Circuit configuration | | No. | Contact | No. | Contact | Type |
|-----------------------|------|------|---------|-----|---------|------|
| TB2 | FG | TB1 | | | | TB1 |
| TB3 | NC | TB2 | Power | | | TB3 |
| TB4 | NC | TB3 | | | | TB5 |
| TB6 | 21 | TB4 | P20 | | | TB7 |
| TB8 | 23 | TB5 | P21 | | | TB9 |
| TB10 | 24 | TB6 | P22 | | | TB11 |
| TB12 | 26 | TB7 | P23 | | | TB13 |
| TB14 | C0M1 | TB8 | COM0 | | | TB15 |
| TB16 | 29 | TB9 | P24 | | | TB17 |
| TB18 | 28 | TB10 | P25 | | | TB19 |
| TB20 | 2C | TB11 | P26 | | | TB21 |
| TB22 | 2E | TB12 | COM1 | | | TB23 |
| TB24 | C0M3 | TB13 | P27 | | | |
| | | TB14 | COM2 | | | |
| | | TB15 | P28 | | | |
| | | TB16 | P29 | | | |
| | | TB17 | P2A | | | |
| | | TB18 | P2B | | | |
| | | TB19 | COM2 | | | |
| | | TB20 | P2C | | | |
| | | TB21 | P2D | | | |
| | | TB22 | P2E | | | |
| | | TB23 | P2F | | | |
| | | TB24 | COM3 | | | |
| | | | ⊕ | | | |

XBC/XEC-DN32H
Transistor output wiring
(sink type)

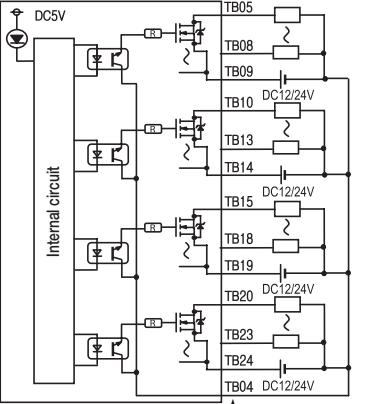
| Circuit configuration | | No. | Contact | No. | Contact | Type |
|-----------------------|----------|------|---------|-----|---------|------|
| TB2 | FG | TB1 | | | | TB1 |
| TB3 | DC12/24V | TB2 | Power | | | TB3 |
| TB4 | DC12/24V | TB3 | | | | TB5 |
| TB6 | 21 | TB4 | P20 | | | TB7 |
| TB8 | 23 | TB5 | P21 | | | TB9 |
| TB10 | 24 | TB6 | P22 | | | TB11 |
| TB12 | 26 | TB7 | P23 | | | TB13 |
| TB14 | C0M1 | TB8 | COM0 | | | TB15 |
| TB16 | 29 | TB9 | P24 | | | TB17 |
| TB18 | 28 | TB10 | P25 | | | TB19 |
| TB20 | 2C | TB11 | P26 | | | TB21 |
| TB22 | 2E | TB12 | COM1 | | | TB23 |
| TB24 | C0M3 | TB13 | P27 | | | |
| | | TB14 | COM2 | | | |
| | | TB15 | P28 | | | |
| | | TB16 | P29 | | | |
| | | TB17 | P2A | | | |
| | | TB18 | P2B | | | |
| | | TB19 | COM2 | | | |
| | | TB20 | P2C | | | |
| | | TB21 | P2D | | | |
| | | TB22 | P2E | | | |
| | | TB23 | P2F | | | |
| | | TB24 | COM3 | | | |
| | | | ⊕ | | | |

* XBC input : P00~P1F, XEC input : I00~I31 * XBC output : P21~P3F, XEC output : Q00~Q31

XEC-DP32H

Transistor output wiring
(source type)

| Circuit configuration | | No. | Contact | No. | Contact | Type |
|-----------------------|----------|------|---------|-----|---------|------|
| TB2 | FG | TB1 | | TB3 | Power | |
| TB4 | DC12/24V | TB5 | 20 | | | |
| TB6 | 21 | TB7 | 22 | | | |
| TB8 | 23 | TB9 | COM0 | | | |
| TB10 | 24 | TB11 | 25 | | | |
| TB12 | 26 | TB13 | 27 | | | |
| TB14 | COM1 | TB15 | 28 | | | |
| TB16 | 29 | TB17 | 2A | | | |
| TB18 | 28 | TB19 | COM2 | | | |
| TB20 | 2C | TB21 | 2D | | | |
| TB22 | 2E | TB23 | 2F | | | |
| TB24 | COM3 | | | | | |



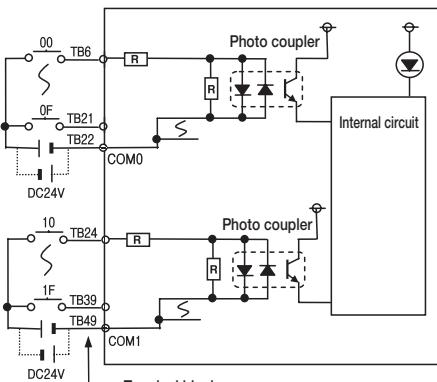
Internal circuit diagram for XEC-DP32H showing 8 sets of logic gates connected to terminal blocks TB05-TB24. Each set includes an inverter and a driver stage. Power supply DC5V is connected to the top of the internal circuit. Terminals are labeled with their respective TB numbers.

XBC-DN(R)64H

XEC-DN/DR/DP64H

Input wiring
(sink/source type)

| Circuit configuration | | No. | Contact | No. | Contact | Type |
|-----------------------|------|------|---------|-----|---------|------|
| TB2 | 485+ | TB1 | RX | | | |
| TB4 | 485- | TB3 | TX | | | |
| TB6 | 00 | TB5 | SG | | | |
| TB8 | 02 | TB7 | 01 | | | |
| TB10 | 04 | TB9 | 03 | | | |
| TB12 | 06 | TB11 | 05 | | | |
| TB14 | 08 | TB13 | 07 | | | |
| TB16 | 0A | TB15 | 09 | | | |
| TB18 | 0O | TB17 | 0B | | | |
| TB20 | 0E | TB19 | 0D | | | |
| TB22 | COM0 | TB21 | 0F | | | |
| TB24 | 10 | TB23 | MC | | | |
| TB26 | 12 | TB25 | 11 | | | |
| TB28 | 14 | TB27 | 13 | | | |
| TB30 | 16 | TB29 | 15 | | | |
| TB32 | 18 | TB31 | 17 | | | |
| TB34 | 1A | TB33 | 19 | | | |
| TB36 | 1C | TB35 | 1B | | | |
| TB38 | 1E | TB37 | 1D | | | |
| TB40 | COM1 | TB39 | 1F | | | |
| TB42 | 24V | TB41 | 24G | | | |



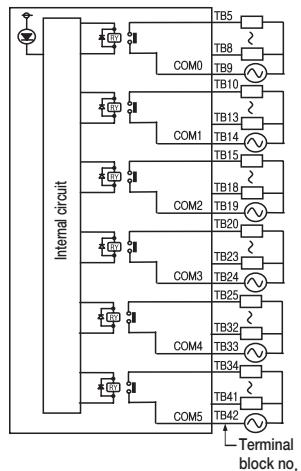
Internal circuit diagram for XBC-DN(R)64H showing two sets of optoisolators (photo couplers) connected to terminal blocks TB6-TB24. Each set has two inputs (00, 0F and 10, 1F) and one common terminal (COM0 or COM1). Power supply DC24V is connected to the bottom of the internal circuit. Terminals are labeled with their respective TB numbers.

XBC-DR60H

XEC-DR64H

Relay output wiring

| Circuit configuration | | No. | Contact | No. | Contact | Type |
|-----------------------|------|------|---------|-----|---------|------|
| TB2 | FG | TB1 | | TB3 | Power | |
| TB4 | NC | TB5 | 20 | | | |
| TB6 | 21 | TB7 | 22 | | | |
| TB8 | 23 | TB9 | COM0 | | | |
| TB10 | 24 | TB11 | 25 | | | |
| TB12 | 26 | TB13 | 27 | | | |
| TB14 | COM1 | TB15 | 28 | | | |
| TB16 | 29 | TB17 | 2A | | | |
| TB18 | 2B | TB19 | COM2 | | | |
| TB20 | 2C | TB21 | 2D | | | |
| TB22 | 2E | TB23 | 2F | | | |
| TB24 | COM2 | TB25 | 30 | | | |
| TB26 | 31 | TB27 | 32 | | | |
| TB28 | 33 | TB29 | 34 | | | |
| TB30 | 35 | TB31 | 36 | | | |
| TB32 | 37 | TB33 | COM4 | | | |
| TB34 | 38 | TB35 | 39 | | | |
| TB36 | 3A | TB37 | 38 | | | |
| TB38 | 3C | TB39 | 3D | | | |
| TB40 | 3E | TB41 | 3F | | | |
| TB42 | COM5 | | | | | |

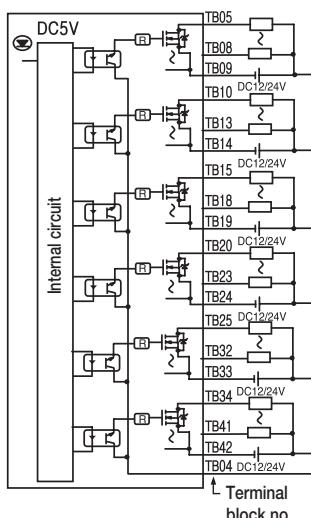


Internal circuit diagram for XBC-DR60H showing 5 sets of relay drivers connected to terminal blocks TB5-TB42. Each set includes an inverter and a driver stage. Power supply DC5V is connected to the top of the internal circuit. Terminals are labeled with their respective TB numbers.

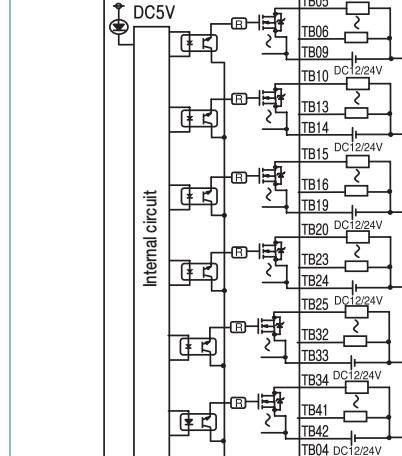
* XBC input : P00~P1F, XEC input : I00~I31 * XBC output : P21~P3F, XEC output : Q00~Q31

XBC-DP64HTransistor output wiring
(sink type)

| Circuit configuration | | No. | Contact | No. | Contact | Type |
|-----------------------|----------|------|---------|-----|---------|------|
| TB2 | FG | TB1 | | | | |
| TB4 | DC12/24V | TB3 | Power | | | |
| TB6 | 21 | TB5 | 20 | | | |
| TB8 | 23 | TB7 | 22 | | | |
| TB10 | 24 | TB9 | COM0 | | | |
| TB12 | 26 | TB11 | 25 | | | |
| TB14 | COM1 | TB13 | 27 | | | |
| TB16 | 29 | TB15 | 28 | | | |
| TB18 | 2B | TB17 | 2A | | | |
| TB20 | 2C | TB19 | COM2 | | | |
| TB22 | 2E | TB21 | 2D | | | |
| TB24 | COM2 | TB23 | 2F | | | |
| TB26 | 31 | TB25 | 30 | | | |
| TB28 | 33 | TB27 | 32 | | | |
| TB30 | 35 | TB29 | 34 | | | |
| TB32 | 37 | TB31 | 36 | | | |
| TB34 | 38 | TB33 | COM4 | | | |
| TB36 | 3A | TB35 | 39 | | | |
| TB38 | 3C | TB37 | 38 | | | |
| TB40 | 3E | TB39 | 3D | | | |
| TB42 | COM5 | TB41 | 3F | | | |

**XBC-DP64H**Transistor output wiring
(source type)

| Circuit configuration | | No. | Contact | No. | Contact | Type |
|-----------------------|----------|------|---------|-----|---------|------|
| TB2 | FG | TB1 | | | | |
| TB4 | DC12/24V | TB3 | Power | | | |
| TB6 | 21 | TB5 | 20 | | | |
| TB8 | 23 | TB7 | 22 | | | |
| TB10 | 24 | TB9 | COM0 | | | |
| TB12 | 26 | TB11 | 25 | | | |
| TB14 | COM1 | TB13 | 27 | | | |
| TB16 | 29 | TB15 | 28 | | | |
| TB18 | 2B | TB17 | 2A | | | |
| TB20 | 2C | TB19 | COM2 | | | |
| TB22 | 2E | TB21 | 2D | | | |
| TB24 | COM2 | TB23 | 2F | | | |
| TB26 | 31 | TB25 | 30 | | | |
| TB28 | 33 | TB27 | 32 | | | |
| TB30 | 35 | TB29 | 34 | | | |
| TB32 | 37 | TB31 | 36 | | | |
| TB34 | 38 | TB33 | COM4 | | | |
| TB36 | 3A | TB35 | 39 | | | |
| TB38 | 3C | TB37 | 38 | | | |
| TB40 | 3E | TB39 | 3D | | | |
| TB42 | COM5 | TB41 | 3F | | | |

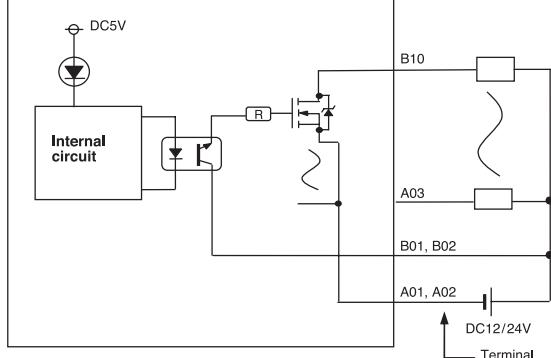


* XBC input : P00~P1F, XEC input : I00~I31 * XBC output : P21~P3F, XEC output : Q00~Q31

Slim type

Transistor output wiring
(XBM-DN16S)

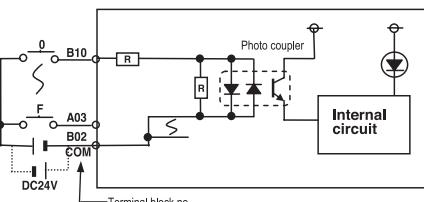
| Circuit configuration | | No. | Contact | Type |
|-----------------------|--------------|-----|---------|------|
| B10 | 20 | | | |
| B09 | 21 | | | |
| B08 | 22 | | | |
| B07 | 23 | | | |
| B06 | 24 | | | |
| B05 | 25 | | | |
| B04 | 26 | | | |
| B03 | 27 | | | |
| B02 | DC12/ 24V | | | |
| B01 | 24V | | | |
| A10 | NC | | | |
| A09 | NC | | | |
| A08 | NC | | | |
| A07 | NC | | | |
| A06 | NC | | | |
| A05 | NC | | | |
| A04 | NC | | | |
| A03 | NC | | | |
| A02 | COM | | | |
| A01 | | | | |



Terminal block no.: DC12/24V

Input wiring
(XBM-DN32S)

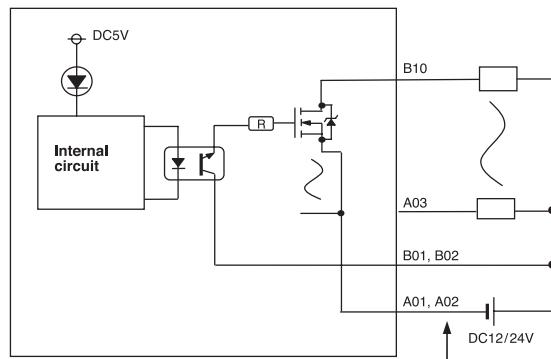
| Circuit configuration | | No. | Contact | No. | Contact | Type |
|-----------------------|-----|-----|---------|-----|---------|------|
| B10 | 00 | A10 | 08 | | | |
| B09 | 01 | A09 | 09 | | | |
| B08 | 02 | A08 | 0A | | | |
| B07 | 03 | A07 | 0B | | | |
| B06 | 04 | A06 | 0C | | | |
| B05 | 05 | A05 | 0D | | | |
| B04 | 06 | A04 | 0E | | | |
| B03 | 07 | A03 | 0F | | | |
| B02 | COM | A02 | COM | | | |
| B01 | COM | A01 | COM | | | |



Terminal block no.: DC24V

Transistor output wiring
(XBM-DN32S)

| Circuit configuration | | No. | Contact | Type |
|-----------------------|--------------|-----|---------|------|
| B10 | 20 | | | |
| B09 | 21 | | | |
| B08 | 22 | | | |
| B07 | 23 | | | |
| B06 | 24 | | | |
| B05 | 25 | | | |
| B04 | 26 | | | |
| B03 | 27 | | | |
| B02 | DC12/ 24V | | | |
| B01 | 24V | | | |
| A10 | 28 | | | |
| A09 | 29 | | | |
| A08 | 2A | | | |
| A07 | 2B | | | |
| A06 | 2C | | | |
| A05 | 2D | | | |
| A04 | 2E | | | |
| A03 | 2F | | | |
| A02 | COM | | | |
| A01 | | | | |



Terminal block no.: DC12/24V

Built-in functions | High-speed counter

Programmable Logic Controller

Slim type

Performance specifications

| Classification | | Description | | | |
|---------------------------------|---|---|--|---|---|
| | | Block type unit | | | Modular type |
| | | H-type | SU-type | E-type | S-type |
| Count input Signal | Signal | A-phase, B-phase | | | |
| | Input type | Voltage input (Open collector) | | | |
| | Signal level | DC 24V | | | |
| Max. count speed | 100kpps | 100kpps | 4kpps | 20kpps | |
| | Number of channels | 100kpps 4ch / 20kpps 4ch | 100kpps 2ch / 20kpps 6ch | 4kpps 4ch | 20kpps 4ch |
| | | 50kpps 2ch / 10kpps 2ch | 50kpps 1ch | 2kpps 2ch | 2 multiplication: 10kpps 4 multiplication: 8kpps |
| Count range | Signed 32bit (-2,147,483,648 ~ 2,147,483,647) | | | | |
| | Count mode (Program setting) | Linear count (If 32bit range exceeded, Carry / Borrow occurs) | | | |
| | | Ring count (Repeated count within setting range) | | | |
| Input mode (Program setting) | 1-phase input | | | | |
| | 2-phase input | | | | |
| | CW/CCW input | | | | |
| Signal type | Voltage | | | | |
| | Up/Down setting | 1 phase input | Increasing / Decreasing operation setting by B-phase input | | |
| | | 2 phase input | Increasing / Decreasing operation setting by program | | |
| Multiplication function | Up/Down setting | CW/CCW | Automatic setting by difference in phase | | |
| | | 1 phase input | A-phase input: increasing operation | | |
| | | 2 phase input | B-phase input: decreasing operation | | |
| Control input | Control input | CW/CCW | 1 multiplication | | |
| | | Signal | Preset instruction input | | |
| | | Signal level | DC 24V input type | | |
| External output | External output | Signal type | Voltage | | |
| | | Output points | 2 point / channel (for each channel): output contact point of basic unit available | 1 point / channel (for each channel): output contact point of basic unit available | |
| | | Type | Select program setting, signal-compared (>, >=, =, <=, <) or section compared output (Included or excluded) | | |
| Count enable | Relay, Open-collector output (Sink) | | | | |
| | To be set through program | | | | |
| | Preset function | | | | To be set through terminal (contact) or program |
| Auxiliary mode | | Count latch | | | |

Input specification

| Item | Description |
|--------------------|------------------------|
| Input voltage | 24V DC (20.4V ~ 28.8V) |
| Input current | 4mA |
| On voltage (min.) | 20.4V |
| Off voltage (max.) | 6V |

Parts designation | Block type unit

High performance type
(XBC-H)

| Terminal No. | Name | | Usage | |
|--------------|-------------------|-------------------|------------------------|-----------------------|
| | 1-phase | 2-Phase | 1-phase | 2-Phase |
| P000 | Ch0 counter input | Ch0 A-phase input | Counter input terminal | A-phase input |
| P001 | Ch1 counter input | Ch0 B-phase input | Counter input terminal | B-phase input |
| P002 | Ch2 counter input | Ch2 A-phase input | Counter input terminal | A-phase input |
| P003 | Ch3 counter input | Ch2 B-phase input | Counter input terminal | B-phase input |
| P004 | Ch4 counter input | Ch4 A-phase input | Counter input terminal | A-phase input |
| P005 | Ch5 counter input | Ch4 B-phase input | Counter input terminal | B-phase input |
| P006 | Ch6 counter input | Ch6 A-phase input | Counter input terminal | A-phase input |
| P007 | Ch7 counter input | Ch6 B-phase input | Counter input terminal | B-phase input |
| P008 | Ch0 preset 24V | Ch0 preset 24V | Preset input terminal | Preset input terminal |
| P009 | Ch1 preset 24V | - | Preset input terminal | No use |
| P00A | Ch2 preset 24V | Ch2 preset 24V | Preset input terminal | Preset input terminal |
| P00B | Ch4 preset 24V | - | Preset input terminal | No use |
| P00C | Ch5 preset 24V | Ch4 preset 24V | Preset input terminal | Preset input terminal |
| P00D | Ch6 preset 24V | - | Preset input terminal | No use |
| P00E | Ch7 preset 24V | Ch6 preset 24V | Preset input terminal | Preset input terminal |
| P00F | Ch8 preset 24V | - | Preset input terminal | No use |
| COM0 | Input common | Input common | Input common | Input common |

High performance type
(XEC-H)

| Terminal No. | Name | | Usage | |
|--------------|-------------------|-------------------|------------------------|-----------------------|
| | 1-phase | 2-Phase | 1-phase | 2-Phase |
| IX0.0.0 | Ch0 counter input | Ch0 A-phase input | Counter input terminal | A-phase input |
| IX0.0.1 | Ch1 counter input | Ch0 B-phase input | Counter input terminal | B-phase input |
| IX0.0.2 | Ch2 counter input | Ch2 A-phase input | Counter input terminal | A-phase input |
| IX0.0.3 | Ch3 counter input | Ch2 B-phase input | Counter input terminal | B-phase input |
| IX0.0.4 | Ch4 counter input | Ch4 A-phase input | Counter input terminal | A-phase input |
| IX0.0.5 | Ch5 counter input | Ch4 B-phase input | Counter input terminal | B-phase input |
| IX0.0.6 | Ch6 counter input | Ch6 A-phase input | Counter input terminal | A-phase input |
| IX0.0.7 | Ch7 counter input | Ch6 B-phase input | Counter input terminal | B-phase input |
| IX0.0.8 | Ch0 preset 24V | Ch0 preset 24V | Preset input terminal | Preset input terminal |
| IX0.0.9 | Ch1 preset 24V | - | Preset input terminal | No use |
| IX0.0.10 | Ch2 preset 24V | Ch2 preset 24V | Preset input terminal | Preset input terminal |
| IX0.0.11 | Ch4 preset 24V | - | Preset input terminal | No use |
| IX0.0.12 | Ch5 preset 24V | Ch4 preset 24V | Preset input terminal | Preset input terminal |
| IX0.0.13 | Ch6 preset 24V | - | Preset input terminal | No use |
| IX0.0.14 | Ch7 preset 24V | Ch6 preset 24V | Preset input terminal | Preset input terminal |
| IX0.0.15 | Ch8 preset 24V | - | Preset input terminal | No use |
| COM0 | Input common | Input common | Input common | Input common |

Standard type

| Terminal No. | Name | | Usage | |
|--------------|-------------------|-------------------|------------------------|-----------------------|
| | 1-phase | 2-Phase | 1-phase | 2-Phase |
| P000 | Ch0 counter input | Ch0 A-phase input | Counter input terminal | A-phase input |
| P001 | Ch1 counter input | Ch0 B-phase input | Counter input terminal | B-phase input |
| P002 | Ch2 counter input | Ch2 A-phase input | Counter input terminal | A-phase input |
| P003 | Ch3 counter input | Ch2 B-phase input | Counter input terminal | B-phase input |
| P004 | Ch4 counter input | Ch4 A-phase input | Counter input terminal | A-phase input |
| P005 | Ch5 counter input | Ch4 B-phase input | Counter input terminal | B-phase input |
| P006 | Ch6 counter input | Ch6 A-phase input | Counter input terminal | A-phase input |
| P007 | Ch7 counter input | Ch6 B-phase input | Counter input terminal | B-phase input |
| P008 | Ch0 preset 24V | Ch0 preset 24V | Preset input terminal | Preset input terminal |
| P009 | Ch1 preset 24V | - | Preset input terminal | No use |
| P00A | Ch2 preset 24V | Ch2 preset 24V | Preset input terminal | Preset input terminal |
| P00B | Ch4 preset 24V | - | Preset input terminal | No use |
| P00C | Ch5 preset 24V | Ch4 preset 24V | Preset input terminal | Preset input terminal |
| P00D | Ch6 preset 24V | - | Preset input terminal | No use |
| P00E | Ch7 preset 24V | Ch6 preset 24V | Preset input terminal | Preset input terminal |
| P00F | Ch8 preset 24V | - | Preset input terminal | No use |
| COM0 | Input common | Input common | Input common | Input common |

Economic type

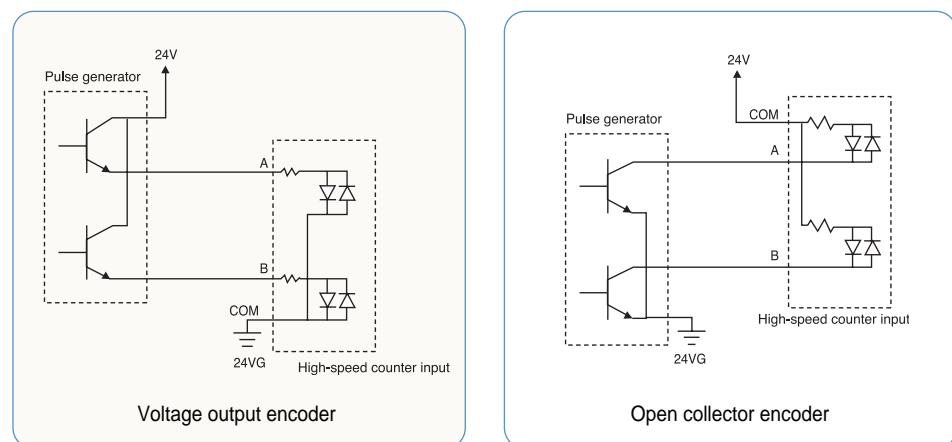
| Terminal No. | Name | | Usage | |
|--------------|-------------------|-------------------|------------------------|-----------------------|
| | 1-phase | 2-Phase | 1-phase | 2-Phase |
| P000 | Ch0 counter input | Ch0 A-phase input | Counter input terminal | A-phase input |
| P001 | Ch1 counter input | Ch0 B-phase input | Counter input terminal | B-phase input |
| P002 | Ch2 counter input | Ch2 A-phase input | Counter input terminal | A-phase input |
| P003 | Ch3 counter input | Ch2 B-phase input | Counter input terminal | B-phase input |
| P004 | Ch0 preset 24V | Ch0 preset 24V | Preset input terminal | Preset input terminal |
| P005 | Ch1 preset 24V | - | Preset input terminal | No use |
| P006 | Ch2 preset 24V | Ch2 preset 24V | Preset input terminal | Preset input terminal |
| P007 | Ch4 preset 24V | - | Preset input terminal | No use |
| COM0 | Input common | Input common | Common terminal | Common terminal |

Parts designation | Modular type unit

Slim type

| Terminal No. | Name | | Usage | |
|--------------|-------------------|-------------------|------------------------|-----------------------|
| | 1-phase | 2-Phase | 1-phase | 2-Phase |
| P000 | Ch0 counter input | Ch0 A-phase input | Counter input terminal | A-phase input |
| P001 | Ch1 counter input | Ch0 B-phase input | Counter input terminal | B-phase input |
| P002 | Ch2 counter input | Ch2 A-phase input | Counter input terminal | A-phase input |
| P003 | Ch3 counter input | Ch2 B-phase input | Counter input terminal | B-phase input |
| P004 | Ch0 preset 24V | Ch0 preset 24V | Preset input terminal | Preset input terminal |
| P005 | Ch1 preset 24V | - | Preset input terminal | No use |
| P006 | Ch2 preset 24V | Ch2 preset 24V | Preset input terminal | Preset input terminal |
| P007 | Ch3 preset 24V | - | Preset input terminal | No use |
| COM0 | Input common | Input common | Common terminal | Common terminal |

Wiring



Parts designation | Block type unit

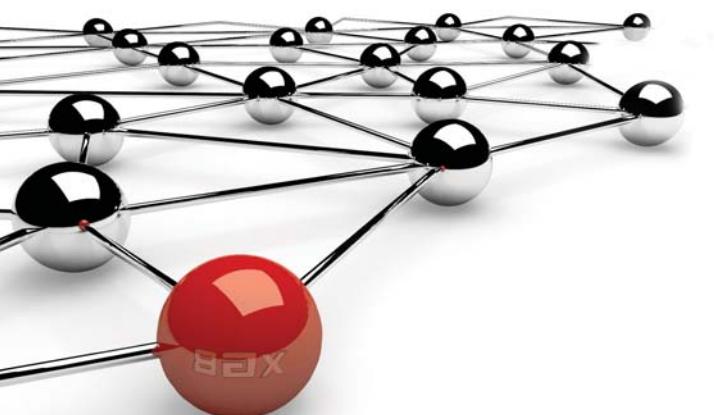
Performance specification

| Classification | | Description | | |
|-----------------------------|---|---|---------|--------------|
| | | Block type unit | | Modular type |
| | | H-type | SU-type | S-type |
| No. of control axis | 2 axis | | | |
| Interpolation | 2-axis linear interpolation | | | |
| Control mode | Position control, Speed control, Speed / Position switching control, Position / Speed switching control | | | |
| Control unit | Pulse | | | |
| Positioning data | 30-step pattern for each axis (XBC: 80step) (operation step number : 1~ 30, XBC : 1~ 80) | | | |
| Positioning monitor | Dedicated monitoring function for positioning in XG5000 | | | |
| Back-up | Permanent backup of downloaded parameter (FLASH memory) | | | |
| | 2-month Super Cap.backup of parameter / Data modified during operation(XBM) battery back-up (XBC) | | | |
| | Permanent backup of parameter / Data in RAM by instruction (FLASH memory) | | | |
| Positioning | Positioning method | Absolute / incremental method | | |
| | Positioning range | -2,147,483,648 ~ 2,147,483,647 | | |
| | Speed range | 1 ~ 100,000 (pulse/sec) | | |
| | Acceleration / Deceleration type | Trapezoidal acceleration / Deceleration | | |
| | Acceleration / Deceleration time | 1 ~ 10,000 _{ms} (4 patterns each can be set) | | |
| Max. output pulse | | 100 Kpps | | |
| Max. distance of connection | | 2m | | |

* Economic block type unit (E-type) dose not support built-in positioning functions

Electrical specification

| Output | Signal | Rated input voltage | Load voltage range | Max. load current/Inrush current | Max. voltage drop (On) | Leakage current (Off) | Response time |
|--------|--------------------------|-----------------------------|--------------------|-----------------------------------|------------------------|-----------------------|----------------------------|
| | Output pulse | DC 5~24V | DC 4.75~26.4V | 100mA(1 point) 1A/10ms or less | DC 0.3V or less | 0.1mA or less | 100 _μ s or less |
| Input | Signal | Rated input voltage/Current | Load voltage range | On voltage / Current | Off voltage / Current | Input resistance | Response time |
| | External high limit | DC 24V/7mA | DC 20.4 ~ 28.8V | DC 19V/5.7mA or more | DC 6V/1.8mA or less | 3.3Ω | 0.5ms or less |
| | External low limit | | | DC 19V/3.4mA or more | DC 6V/1.1mA or less | 5.6Ω | |
| | Approximate zero zero | DC 24V/4mA | | | | | |



I/O specifications | Block type unit

High performance type
(XBC/XEC-H)

| Item | XBC pin number (XEC pin number) | | Signal name | | Direction of positioning signal to external | Operating condition |
|--------|------------------------------------|-----------------------|-------------|-----------------------------------|---|---------------------|
| | X axis | Y axis | | | | |
| Input | P00008 (%IX0.0.8) | P0000A (%IX0.0.10) | Limit L | Low limit | ← | 4mA/ 24V |
| | P00009 (%IX0.0.9) | P0000B (%IX0.0.11) | Limit H | High limit | ← | |
| | P0000C (%IX0.0.12) | P0000E (%IX0.0.14) | DOG | Near point | ← | |
| | P0000D (%IX0.0.13) | P0000F (%IX0.0.15) | Origin | Zero signal (+24V) | ← | |
| | COM | | Input COM | Common | ← | |
| Output | P00020 (%QX0.0.0) | P00021 (%QX0.0.1) | Pulse | Pulse/CW (Open collector) | → | DC 12~24V |
| | P00022 (%QX0.0.2) | P00023 (%QX0.0.3) | Direction | Direction/CCW (Open collector) | → | |
| | P | | DC 12V~24V | External power supply | → | |
| | COM 0~3 | | Output COM | External 24V GND | → | |

Standard type
(XBC/XEC-SU)

| Item | XBC pin number | | Signal name | | Direction of positioning signal to external | Operating condition |
|--------|-----------------------|-----------------------|-------------|-----------------------------------|---|---------------------|
| | X axis | Y axis | | | | |
| Input | P00008 (%IX0.0.8) | P0000A (%IX0.0.10) | Limit L | Low limit | ← | 4mA/ 24V |
| | P00009 (%IX0.0.9) | P0000B (%IX0.0.11) | Limit H | High limit | ← | |
| | P0000C (%IX0.0.12) | P0000E (%IX0.0.14) | DOG | Near point | ← | |
| | P0000D (%IX0.0.13) | P0000F (%IX0.0.15) | Origin | Zero signal (+24V) | ← | |
| | COM | | Input COM | Common | ← | |
| Output | P00040 (%QX0.0.0) | P00041 (%QX0.0.1) | Pulse | Pulse/CW (Open collector) | → | DC 12~24V |
| | P00042 (%QX0.0.2) | P00043 (%QX0.0.3) | Direction | Direction/CCW (Open collector) | → | |
| | P | | DC 12V~24V | External power supply | → | |
| | COM 0~3 | | Output COM | External 24V GND | → | |

I/O specifications | Modular type unit

Standard type

| Item | XBM pin number | | Signal name | | Direction of positioning signal to external | Operating condition |
|--------|----------------|--------|-------------|--------------------------------|---|---------------------|
| | X axis | Y axis | | | | |
| Input | P00000 | P00002 | Limit L | Low limit | ← | Edge |
| | P00001 | P00003 | Limit H | High limit | ← | Edge |
| | P00004 | P00006 | DOG | Near point | ← | Edge |
| | P00005 | P00007 | Origin | Zero signal (+24V) | ← | Edge |
| | COM | | Input COM | Common | ← | - |
| Output | P00020 | P00021 | Pulse | Pulse/CW (Open collector) | → | - |
| | P00022 | P00023 | Direction | Direction/CCW (Open collector) | → | - |
| | 12/24V | | DC 12/24V | External power supply | → | - |
| | COM | | Output COM | External 24V GND | → | - |

I/O specifications | Block type unit

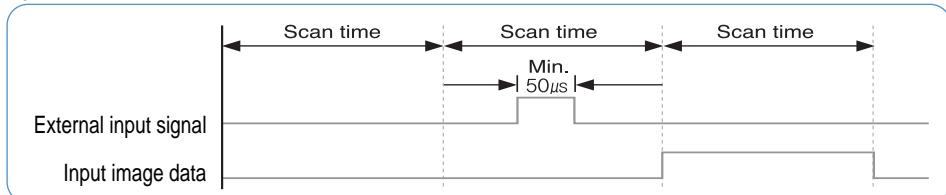
Performance specification
(PID)

| Classification | | Description | | |
|----------------------------|--|---|---------|--------------|
| | | Block type unit | | Modular type |
| | | H-type | SU-type | S-type |
| No. of control loop | | 16-loop independent control | | |
| Control mode | | P control, PI control, PD control, PID control | | |
| Control period | | 10ms ~ 6,553.5ms (Setting unit: 0.1ms) | | |
| Function | Forward / Reverse Mixed control | Switching control direction automatically when exceeding dead band | | |
| | Cascade | Improved control precision by serial connection between master loop and slave loop | | |
| | SV Ramp | Preventing overload caused by excessive SV change by setting variation slope | | |
| | Alarm | Improved control stability with various alarm function such as MV high limit/Low limit, PV high limit/low limit, PV variation width | | |
| | Auto tuning | Auto tuning with improved auto-tuning algorithm | | |
| | Additional function | PWM output, PV Tracking, Δ MV, Δ PV, etc | | |

※ Economic block type unit (E-type) dose not support built-in PID functions

Pulse catch

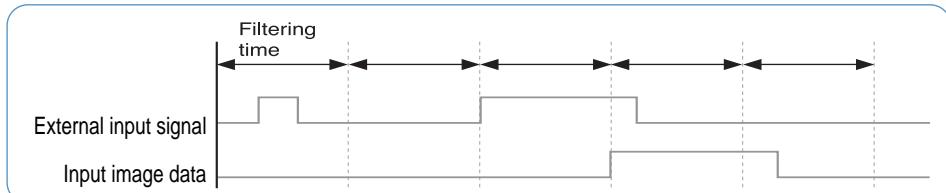
When On-condition time of input signal is shorter than 1 scan time (Min. 50μs), Pulse catch processes the input signal as normal input.



| Item | Description | | | |
|--------------------|--|--|-----------------------------------|-----------------------------------|
| | Block type unit | | | Modular type |
| | H-type | SU-type | E-type | S-type |
| Pulse catch | 10μs: 4 points (P00000~P00003) 50μs: 4 points (P00004~P00007) | 10μs: 2 points (P00000~P00001) 50μs: 6 points (P00002~P00007) | 50μs: 4 points (P00000~P00003) | 50μs: 8 points (P00000~P00007) |

Input filter

Input filter prevents processing of the input signal that is shorter than the filtering time. (Filtering time is set by parameter) In the application site where noise is frequently generated, input filter prevents wrong input caused by noise.



| Classification | Description | | | |
|-------------------------------------|--------------------------------------|---------|--------|--------------|
| | Block type unit | | | Modular type |
| | H-type | SU-type | E-type | S-type |
| No. of setting points | Every input contact | | | |
| Input filtering time setting | Assigning for each module | | | |
| Setting range | 1 ~ 100ms (1, 3, 5, 10, 20, 70, 100) | | | |

Task

Task function is the processing method of internal/external signal generated periodically or aperiodically. It stops operation of scan program for the moment and then execute the assigned task.

| Classification | Description | | | |
|----------------------|--|--|-----------------------------------|-----------------------------------|
| | Block type unit | | | Modular type |
| | H-type | SU-type | E-type | S-type |
| Initial task | 1(_INT) | | | |
| Cyclic task | 8 | | | |
| I/O task | 8 | 8 | 4 | 8 |
| Internal device task | 8 | | | |
| External interrupt | 10μs: 4 points (P00000~P00003) 50μs: 4 points (P00004~P00007) | 10μs: 2 points (P00000~P00001) 50μs: 6 points (P00002~P00007) | 50μs: 4 points (P00000~P00003) | 50μs: 8 points (P00000~P00007) |

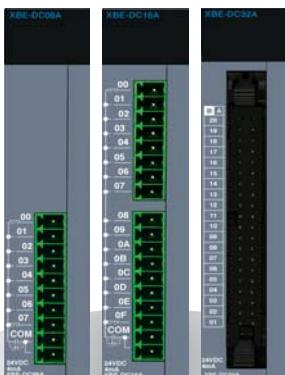
RTC

RTC function is for time management of system and error log. RTC function is executed steadily when power is off or instantaneous power cut status. Current time of RTC is renewed every scan by system operation status information flag.

| Classification | Description | | | |
|----------------|-----------------|---------------|---------------|---------------|
| | Block type unit | | | Modular type |
| | H-type | SU-type | E-type | S-type |
| RTC | Built-in | Option module | Option module | Not available |



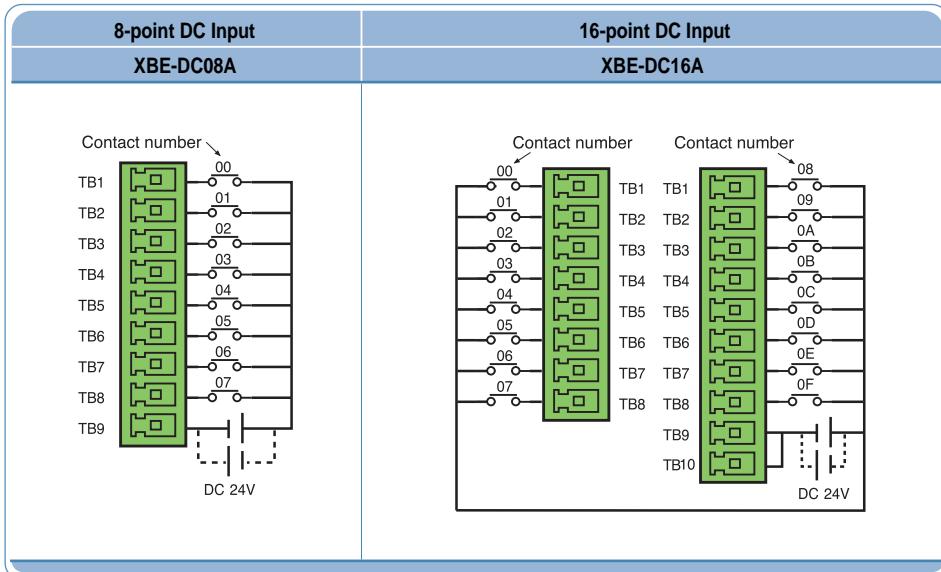
Specification



XBE-DC08A
XBE-DC16A
XBE-DC32A

| Specification | Model | XBE-DC08A | XBE-DC16A | XBE-DC32A |
|--------------------------------------|----------------------|--|---------------------------------------|-----------------|
| Input point | | 8 points | 16 points | 32 points |
| Rated input voltage / current | | | DC 24V / 4mA | |
| Operation voltage range | | | DC 20.4 ~ 28.8V (Ripple rate < 5%) | |
| Input resistance | Response time | | 5.6kΩ | |
| | | 1 / 3 / 5 / 10 / 20 / 70 / 100ms (setting by CPU parameter) Initial value: 3ms | | |
| Insulation pressure | | | AC 560Vrms / 3 Cycle (altitude 2000m) | |
| Insulation resistance | | | 10MΩ or more by megger | |
| COMMON method | | 8 points / COM | 16 points / COM | 32 points / COM |
| Internal current consumption | | 30mA | 40mA | 50mA |

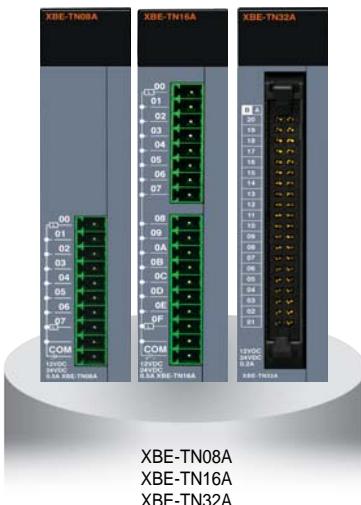
Wiring (XBE-DC08A / DC16A)



Transistor Output

Programmable Logic Controller

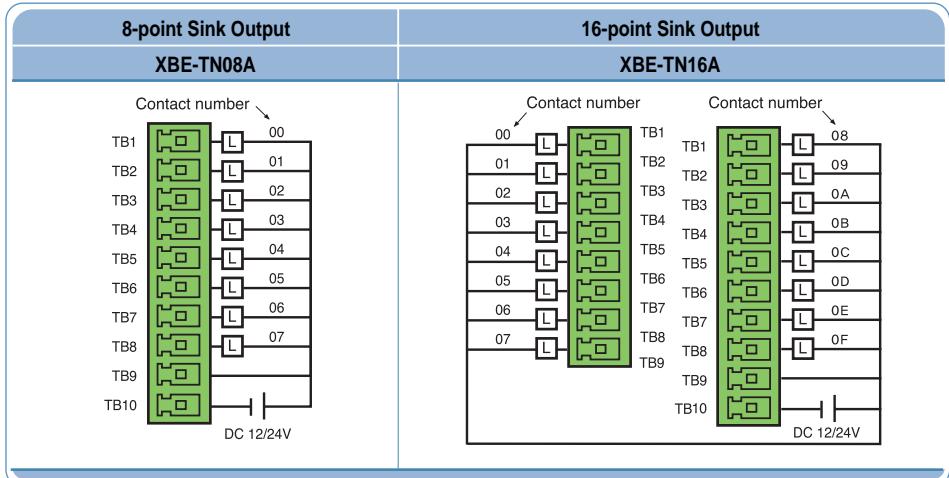
Specification



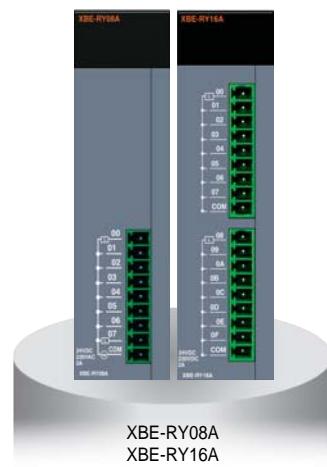
| Specification | Model | XBE-TN08A | XBE-TP08A | XBE-TN16A | XBE-TP16A | XBE-TN32A | XBE-TP32A |
|------------------------------|----------|----------------|-----------|---|-----------|----------------------------------|-----------|
| Type | | Sink | Source | Sink | Source | Sink | Source |
| Output point | | 8 point | | 16 point | | 32 point | |
| Rated load voltage | | | | DC 12 / 24V | | | |
| Load voltage range | | | | DC 10.2 ~ 26.4 V | | | |
| Max. load current | | 0.2A / 1point | | 0.2A / 1point, 2A / COM | | | |
| Off leakage current | | | | 0.1mA or less | | | |
| Max. voltage drop (On) | | | | DC 0.4V | | | |
| Response time | Off → On | | | 1mA or less | | | |
| | On → Off | | | 1mA or less (Rated load, resistive load) | | | |
| Common method | | 8 points / COM | | 16 points / COM | | 32 points / COM | |
| Internal current consumption | | 40mA | | 60mA | | 120mA | |
| External power supply | Voltage | | | DC 12 / 24V ± 10% (Ripple voltage ≤ 4 Vp-p) | | | |
| | Current | | | 10mA or less (DC 24V connection) | | 20mA or less (DC 24V connection) | |

| Item | | XBF-AD04C | |
|-----------------------|------------------|--|---|
| Analog range | Item | Voltage | Current |
| | Range | DC 1 ~ 5V, DC 0 ~ 5V, DC 0 ~ 10V, DC -10 ~ 10V (Input resistance 1MΩ min) | DC 4 ~ 20mA DC 0 ~ 20mA (Input resistance 250MΩ) |
| Digital Output Range | Type | 16bit binary data(Data : 14bit) | |
| Digital Output Range | Unsigned value | 0 ~ 16000 | |
| | Signed value | -8000 ~ 8000 | |
| | Precise value | 1000 ~ 5000 (1 ~ 5V), 0 ~ 5000 (0 ~ 5V), 0 ~ 10000 (0 ~ 10V) | 4000 ~ 20000 (4 ~ 20mA), 0 ~ 20000 (0 ~ 20mA) |
| | Percentile value | 0 ~ 10000 1/16000 | |
| | Resolution | 0.250mV(1 ~ 5V) 0.3125mV(0 ~ 5V) 0.625mV(0 ~ 10V) 1.250mV(±10V) | 1.0µA(4 ~ 20mA) 1.25µA(0 ~ 20mA) |
| Max. conversion speed | | 1ms/channel | |
| Max. absolute input | | DC ±15V | DC ±3mA |
| Analog Input Channels | | 4 channel/module | |
| Insulation method | | Photo-coupler insulation between input terminal and PLC power (no insulation between channels) | |
| Connection terminal | | 15-point terminal block | |
| Occupied I/O points | | Fixed type : 64points | |
| Current consumption | DC 5V | 110mA | |
| | DC 24V | 100mA | |

Wiring (XBE-TN08A / TN16A)



Specification

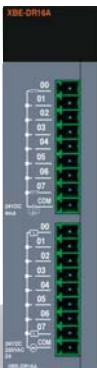


| Specification | Model | XBE-RY08A | XBE-RY16A |
|--------------------------------------|-------------------|---|------------------------------------|
| Output point | | 8 points | 16 points |
| Insulation method | | Relay insulation | |
| Rated input voltage / Current | | DC 24V 2A (resistive load) / AC 220V 2A ($\text{COS}\varphi = 1$), 5A /COM | |
| Min. load voltage / Current | | DC 5V 1mA | |
| Max. load voltage | | AC 250V, DC 125V | |
| Off leakage current | | 0.1mA (AC 220V, 60Hz) | |
| Max. on / Off frequency | | 3,600 times / hr | |
| Surge absorber | | None | |
| Service life | Mechanical | 20million times or more | |
| | Electrical | Rated load voltage / Current 100,000 times or more AC 200V / 1.5A, AC 240V / 1A ($\text{COS}\varphi = 0.7$) 100,000 times or more AC 200V / 1A, AC 240V / 0.5 ($\text{COS}\varphi = 0.35$) 100,000 times or more DC 24V / 1A, DC 100V / 0.1A (L / R = 7ms) 100,000 times or more | |
| Response time | Off → On | 10ms or less | |
| | On → Off | 12ms or less | |
| COMMON method | | 8 points / 1COM | |
| Internal current consumption | | 230mA | 420mA |
| Operation indicator | | Output On, LED On | |
| External connection method | | 9-pin terminal block connector | 9-pin terminal block connector × 2 |

| Item | | XBF-DV04C | XBF-DC04C |
|-----------------------|------------------|---|---|
| Analog range | Item | Voltage | Current |
| | Range | DC 1 ~ 5V, DC 0 ~ 5V, DC 0 ~ 10V, DC -10 ~ 10V (Input resistance 1kΩ or more) | DC 4 ~ 20mA DC 0 ~ 20mA (Input resistance 600MΩ or less) |
| Digital Output Range | Type | 16bit binary data(Data : 14bit) | |
| | Unsigned value | 0 ~ 16000 | |
| | Signed value | -8000 ~ 8000 | |
| | Precise value | 1000 ~ 5000 (1 ~ 5V), 0 ~ 5000 (0 ~ 5V), 0 ~ 10000 (0 ~ 10V) | 4000 ~ 20000 (4 ~ 20mA), 0 ~ 20000 (0 ~ 20mA) |
| | Percentile value | 0 ~ 10000 1/16000 | |
| Resolution | | 0.250mV(1 ~ 5V) 0.3125mV(0 ~ 5V) 0.625mV(0 ~ 10V) 1.250mV(±10V) | 1.0μA(4 ~ 20mA) 1.25μA(0 ~ 20mA) |
| Max. conversion speed | | 1ms/channel | |
| Analog Input Channels | | 4 channel/module | |
| Insulation method | | Photo-coupler insulation between output terminal and PLC power (no insulation between channels) | |
| Connection terminal | | 11-point terminal block | |
| Occupied I/O points | | Fixed type : 64points | |
| Current consumption | DC 5V | 75mA | |
| | DC 24V | 170mA | |



DC Input specification

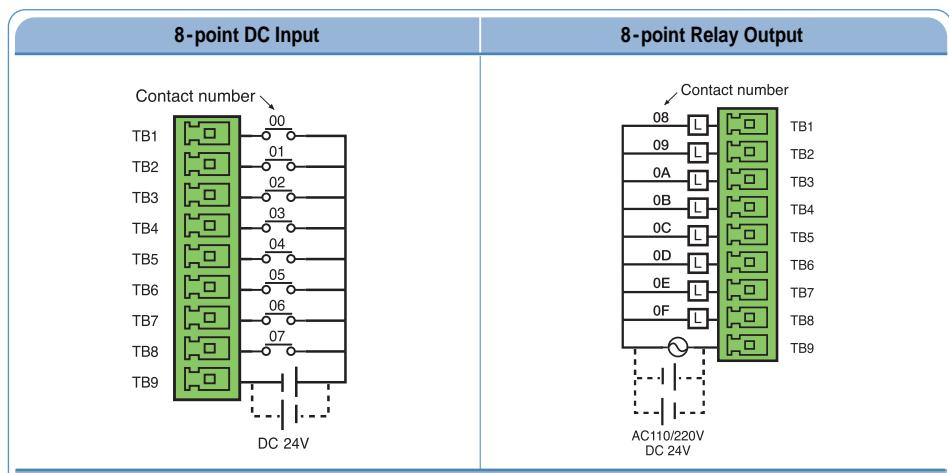


XBE-DR16A

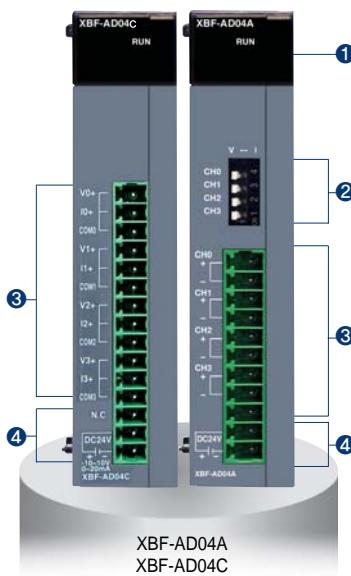
| Specification | Model | DC Input (XBE-DR16A) |
|---------------------------|----------------------|---|
| Input point | | 8 points |
| Insulation method | | Photocoupler |
| Rated input voltage | | DC 24V |
| Rated input current | | 4mA |
| Operation voltage range | | DC 20.4 ~ 28.8V (Ripple rate < 5%) |
| On voltage / On current | | DC 19V or more / 3mA or more |
| Off voltage / Off current | | DC 6V or less / 1mA or less |
| Input resistance | | 5.6kΩ |
| Response time | Off → On On → Off | 1 / 3 / 5 / 10 / 20 / 70 / 100ms (setting by CPU parameter) init value: 3ms |
| COMMON method | | 8 points / COM |
| Weight | | 81g |

Relay output specification

| Specification | Model | Relay Output (XBE-DR16A) |
|-------------------------------|----------------------|---|
| Output point | | 8 points |
| Insulation method | | Relay insulation |
| Rated input voltage / Current | | DC 24V 2A (resistive load) / AC 220V 2A ($\text{COS}\varphi = 1$) , 5A /COM |
| Min. load voltage / Current | | DC 5V 1mA |
| Max. load voltage | | AC 250V, DC 125V |
| Off leakage current | | 0.1mA (AC 220V, 60Hz) |
| Max. on / Off frequency | | 3,600 times / hr |
| Surge absorber | | None |
| Service life | Mechanical | 20 million times or more |
| | Electrical | Rated load voltage / Current 100,000 times or more AC 200V / 1.5A, AC 240V / 1A ($\text{COS}\varphi = 0.7$) 100,000 times or more AC 200V / 1A, AC 240V / 0.5 ($\text{COS}\varphi = 0.35$) 100,000 times or more DC 24V / 1A, DC 100V / 0.1A (L / R = 7ms) 100,000 times or more |
| Response time | Off → On On → Off | 10ms or less 12ms or less |
| COMMON method | | 8 points / 1COM |
| Internal current consumption | | 250mA |
| Operation indicator | | Output On, LED On |
| External connection method | | 9-pin terminal block connector |

Wiring
(XBE-DR16A)

Specification

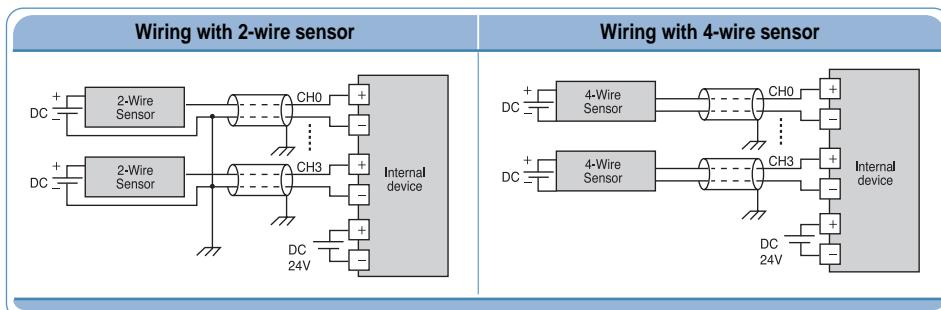


| Item | | XBF-AD04A | | XBF-AD04C | | XBF-AD08A | |
|-----------------------|---------------|---|---|--|--|---|---|
| Analog range | Item | Voltage | Current | Voltage | Current | Voltage | Current |
| | Range | DC 0~10V (input resistance : 1MΩ min.) | DC 4~20mA, DC 0~20mA (input resistance: 250Ω) | DC 1 ~ 5V DC 0 ~ 5V DC 0 ~ 10V DC -10 ~ 10V (Input resistance : 1MΩ min) | DC 4 ~ 20mA DC 0 ~ 20mA (Input resistance : 250MΩ) | DC 1~5V DC 0~5V DC 0~10V (Input resistance : 250Ω) | DC 4~20mA, DC 0~20mA (input resistance: 250Ω) |
| Digital output | Type | 12bit binary data | | 16bit binary data (Data : 14bit) | | 12bit binary data | |
| | Range | Unsigned value | 0~4000 | | 0 ~ 16000 | | 0~4000 |
| | | Signed value | -2000~2000 | | -8000~8000 | | -2000~2000 |
| | Precise value | 0~1000 | 4000~2000/ 0~2000 | 100~5000(1~5V) 0~500(0~5V) 0~10000(0~5V) -10000~10000(±10V) | 4000~20000 (4~20mA) 0~20000 (0~20mA) | 100~500(DC1~5V) 0~500(DC0~5V) 0~1000(DC0~10V) | 4000~2000 (DC 4~20mA) 0~2000 (DC 0~20mA) |
| Percentile value | | 0~1000 | | 0~10000 | | 0~1000 | |
| Resolution | | 2.5mV (1/4000) | 5µA (1/4000) | 1/16000 | | 1.25mV (DC 1~5V, 0~5V) 2.5mV (DC 0~10V) | 5µA (DC 4~20mA, 0~20mA) |
| Max. conversion speed | | 1.5ms / channel | | 1ms / channel | | 1.5ms / channel | |
| Max. absolute input | | ±15V | ± 25mA | DC ±15V | DC ±3mA | ±15V | ± 25mA |
| Analog Input channels | | 4 channel/module | | 4 channel/module | | 8 channel/module | |
| Insulation method | | Photocoupler insulation between I/O terminal and power supply | | Photo-coupler insulation between I/O terminal and PLC power (No insulation between channels) | | Photocoupler insulation between I/O terminal and power supply | |
| Connection terminal | | 11-point terminal block | | 15-point terminal block | | 11-point terminal block | |
| Occupied I/O points | | | | Fixed type : 64 points | | | |
| Current consumption | DC 5V | 120mA | | 110mA | | 105mA | |
| | DC 24V | 62mA | | 100mA | | 85mA | |

Names and Functions

| No. | Name | Descriptions |
|-----|--------------------------------|---|
| ① | RUN LED | ▶ Indicates condition of module • LED On: Normal condition • LED On and Off: Flickering • LED Off: Power Off or module malfunction |
| ② | Input selection S/W | ▶ Voltage/Current selection switch • V: Voltage input selection • I: Current input selection |
| ③ | Terminal block | ▶ External device connection |
| ④ | External power supply terminal | ▶ External DC 24V input |

Wiring

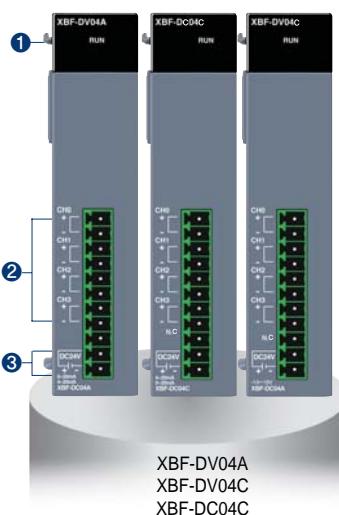


※ Use 22AWG, 2 conductor, twist shielded cable when wiring between analog module and external device.

Analog Output

Programmable Logic Controller

Specification



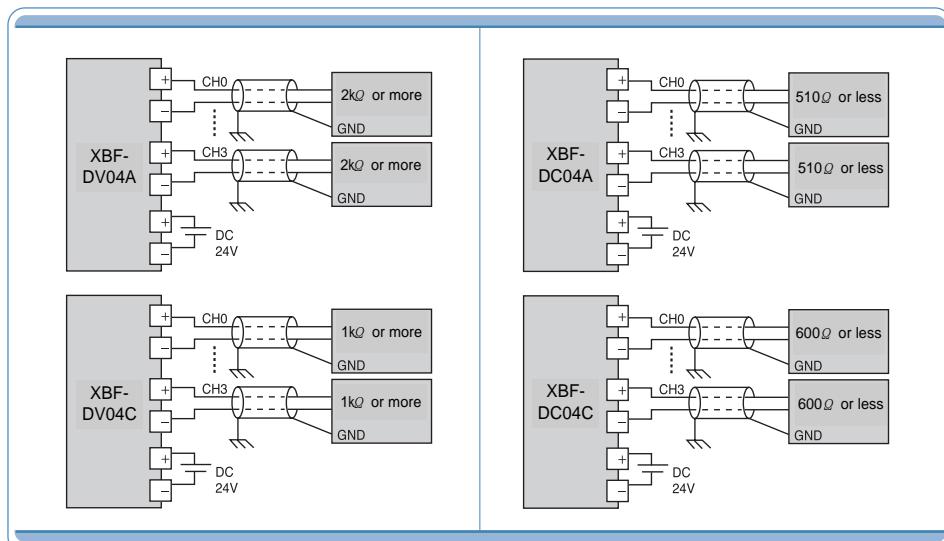
XBF-DV04A
XBF-DC04C
XBF-DV04C

| Item | XBF-DV04A | XBF-DV04C | XBF-DC04C | XBF-DC04A | | | |
|-------------------------------|---|--|--|---|--|--|--|
| Analog range | DC 0 ~ 10 V (Load resistance $\geq 2k\Omega$) | DC 1 ~ 5V DC 0 ~ 5V DC 0 ~ 10V DC -10 ~ 10V (Input resistance : 1k Ω or more) | DC 4 ~ 20mA DC 0 ~ 20mA (Input resistance : 600M Ω or less) | 4 ~ 20mA / 0 ~ 20mA (Load resistance $\leq 510\Omega$) | | | |
| Analog range Selection | - | - | - | XG 5000 I/O parameter | | | |
| Digital data | Output range 0 ~ 10 V | Unsigned value 0 ~ 4000 | Signed value - 2000 ~ 2000 | Precise value 0 ~ 1000 1000~5000(1~5V) 0~5000(0~5V) 0~10000(0~10V) -1000~10000($\pm 10V$) | Percentile value 0~1000 0~10000 | Data format Data format of digital input is set by user program or I/O parameter (Setting for each channel is available.) | 4 ~ 20mA / 0 ~ 20mA 0 ~ 4000 - 2000 ~ 2000 400 ~ 2000 / 0 ~ 2000 0~1000 |
| Resolution | Resolution (1/4000) 2.5mV | 1/1600 | Resolution (1/4000) | | | | |
| Max. conversion speed | 1ms / channel | 1ms / channel | 1ms / channel | | | | |
| Max. absolute output | $\pm 15V$ | - | - | $\pm 25mA$ | | | |
| Accuracy | $\pm 0.5\%$ or less | - | - | $\pm 0.5\%$ or less | | | |
| Analog output channels | 4 channel / module | 4 channel / module | 4 channel / module | | | | |
| Insulation method | Photocoupler insulation between I/O terminal and power supply | Photo-coupler insulation between output terminal and PLC power (no insulation between channels) | Photocoupler insulation between I/O terminal and power supply | | | | |
| Connection terminal | 11-point terminal block | | | | | | |
| Occupied I/O points | Fixed type: 64 points | | | | | | |
| Current consumption | DC 5V DC 24V | 110mA 70mA | 75mA 170mA | 110mA 120mA | | | |

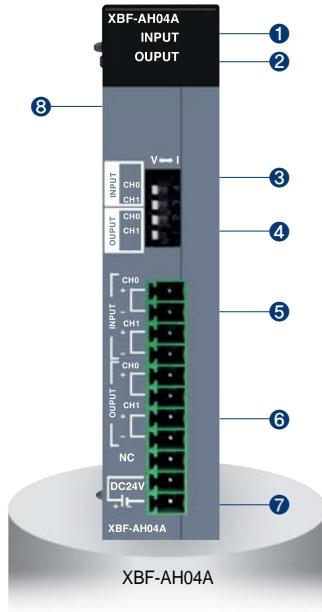
Names and Functions

| No. | Name | Descriptions |
|-----|--------------------------------|---|
| ① | RUN LED | ► Indicates condition of module • LED On: Normal condition • LED On and Off: Flickering • LED Off: Power Off or module malfunction |
| ② | Terminal block | ► External device connection |
| ③ | External power supply terminal | ► External DC 24V input |

Wiring



Specification

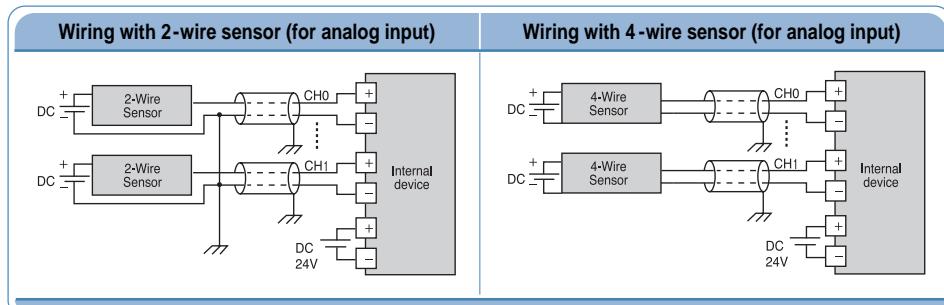


| Item | XBF-AH04A | |
|------------------------|---|---|
| | Input | Output |
| Analog channel | 2 channels | 2 channels |
| Analog range | DC 1 ~ 5V, DC 0 ~ 5V, DC 0 ~ 10V (Input resistance: 1 MΩ min.) DC 4 ~ 20mA, DC 0 ~ 20mA (Input resistance 250Ω) | DC 1 ~ 5V, DC 0 ~ 5V, DC 0 ~ 10V (Load resistance ≥ 2kΩ) DC 4 ~ 20mA, DC 0 ~ 20mA (Load resistance ≤ 510Ω) |
| Analog range selection | XG 5000 I/O parameter and External switch | |
| Digital data | Unsigned value | 0 ~ 4000 |
| | Signed value | -2000 ~ 2000 |
| | Precise value | 100 ~ 500 (DC 1 ~ 5V), 0 ~ 500 (DC 0 ~ 5V), 0 ~ 1000 (DC 0 ~ 10V) 400 ~ 2000 (DC 4 ~ 20mA), 0 ~ 2000 (DC 0 ~ 20mA) |
| | Percentile value | 0 ~ 1000 |
| Resolution(1/4000) | 1.25mV (DC 1~5V, 0~5V), 2.5mV (DC 0~10V) 5μA (DC 4~20mA, 0~20mA) | |
| Max. conversion speed | ±15V, 25mA | |
| Max. absolute output | 1ms / Channel | |
| Accuracy | ±0.5% or less | |
| Insulation method | Photocoupler insulation between I/O terminal and power supply | |
| Connection terminal | 11-point terminal block | |
| Occupied I/O points | Fixed type: 64 points | |
| Current consumption | DC 5V | 120mA |
| | DC 24V | 130mA |

Names and Functions

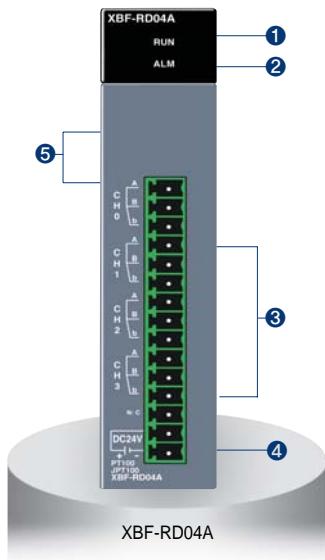
| No. | Name | Descriptions |
|-----|--------------------------------|--|
| ① | INPUT LED | ▶ Indicates input condition of module • LED On: Normal condition • LED On and Off: Flickering • LED Off: Power Off or module malfunction |
| ② | OUTPUT LED | ▶ Indicates output condition of module • LED On: Normal condition • LED On and Off: Flickering • LED Off: Power Off or module malfunction |
| ③ | Input selection S/W | ▶ Voltage / Current selection switch for input |
| ④ | Output selection S/W | ▶ Voltage / Current selection switch for output |
| ⑤ | Terminal block | ▶ Terminal for external input device |
| ⑥ | Terminal block | ▶ Terminal for external output device |
| ⑦ | External power supply terminal | ▶ Terminal for external DC 24V input |
| ⑧ | Expansion connector | ▶ Terminal for expansion |

Wiring



*Use 22AWG, 2 conductor, twist shielded cable when wiring between analog module and external device.

Specification

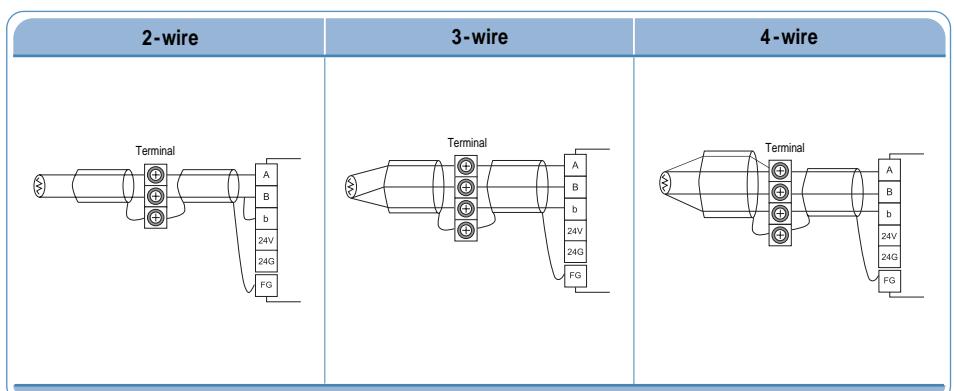


| Item | | XBF-RD04A |
|---------------------|----------|-------------------------------|
| Number of channels | | 4 |
| Sensor type | PT 100 | JIS C1804-1997 |
| | JPT 100 | JIS C1604-1981, KS C1603-1991 |
| Temperature range | PT 100 | -200 ~ 600°C |
| | JPT 100 | -200 ~ 600°C |
| Digital output | PT 100 | -2000 ~ 6000 |
| | JPT 100 | -2000 ~ 6000 |
| | Scaling | 0 ~ 4000 |
| Accuracy | 25°C | ±0.3% or less |
| | 0 ~ 55°C | ±0.5% or less |
| Conversion speed | | 40ms / Ch |
| Wiring method | | 3-wire |
| Current consumption | DC 5V | 100mA |
| | DC 24V | 100mA |

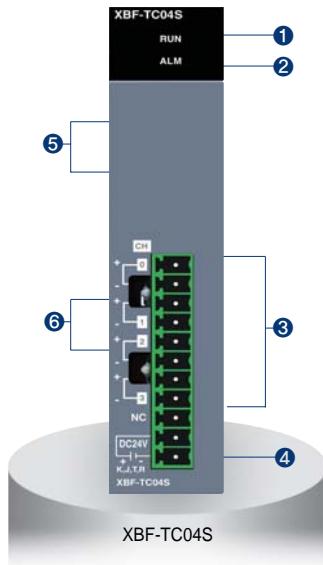
Names and Functions

| No. | Name | Descriptions |
|-----|-------------------------|--|
| ① | RUN LED | ▶ Displays the hardware operation status (Fatal fault) • On: Normal status • Flickering: Error (0.2s flickering) • Off: hardware error or power off |
| ② | ALM LED | ▶ Displays the status of the channels (Light fault) • Flickering: Line disconnection (1s flickering) • Off: Normal status |
| ③ | Terminal block | ▶ 3-wire RTD sensors can be connected |
| ④ | External power terminal | ▶ Supplies the external DC 24V |
| ⑤ | Expansion connector | ▶ Connects the module with an expansion module |

Wiring



Specification

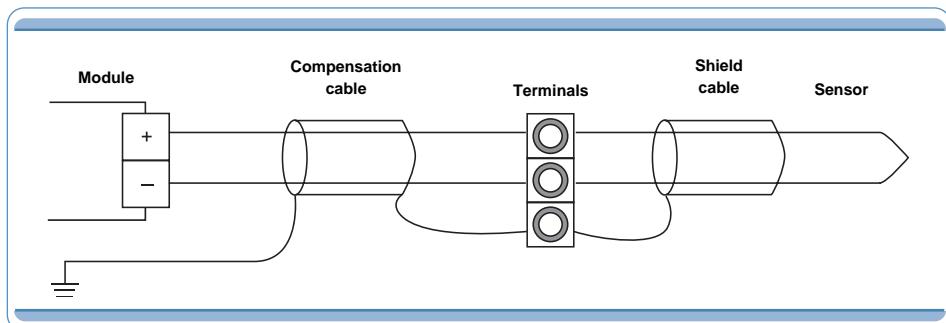


| Item | XBF-TC04S |
|-------------------------|--|
| Number of channels | 4 |
| Input sensor type | Thermocouple K / J / T / R JIS C1602-1995 |
| Temperature input range | K: -200.0°C ~ 1300.0°C (-328.0°F ~ 2372.0°F) J: -200.0°C ~ 1200.0°C (-328.0°F ~ 2192.0°F) T: -200.0°C ~ 400.0°C (-328.0°F ~ 752.0°F) R: 0.0°C ~ 1700.0°C (32.0°F ~ 3092.0°F) |
| Digital output | Temperature display unit: Display down to one decimal place K, J, T: 0.1°C R: 0.5°C Scaling display (Defined by user): Unsigned scaling (0 ~ 65535) Signed scaling (-32768 ~ 32767) |
| Accuracy | Normal temperature (25°C): ±0.2% Temperature coefficient (0 ~ 55°C): ±100 ppm / °C |
| Max. conversion speed | 50ms / Channel |
| Warming-up time | 15 minutes or more |
| Terminal | 11-point terminal |
| I/O points occupied | 64 points |
| Current consumption | DC 5V: 100mA DC 24V: 100mA |

Names and Functions

| No. | Name | Descriptions |
|-----|-------------------------|--|
| ① | RUN LED | ▶ Displays the hardware operation status (Fatal fault) • On: Normal status • Flickering: Error (0.2s flickering) • Off: hardware error or power off |
| ② | ALM LED | ▶ Displays the status of the channels (Light fault) • Flickering: Line disconnection (1s flickering) • Off: Normal status |
| ③ | Terminal block | ▶ Terminals to connect the thermo-couple sensor |
| ④ | External power terminal | ▶ Terminals to supply the external DC 24V |
| ⑥ | RJC | ▶ Device for Reference Junction Compensation |

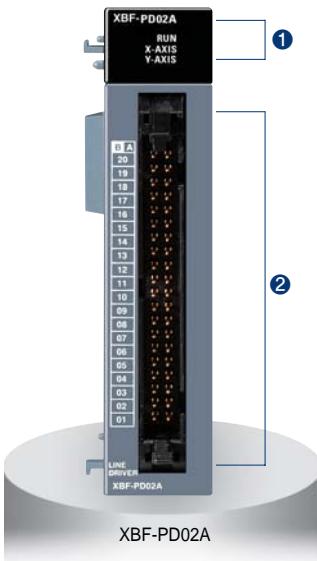
Wiring



Positioning module

Programmable Logic Controller

Specification

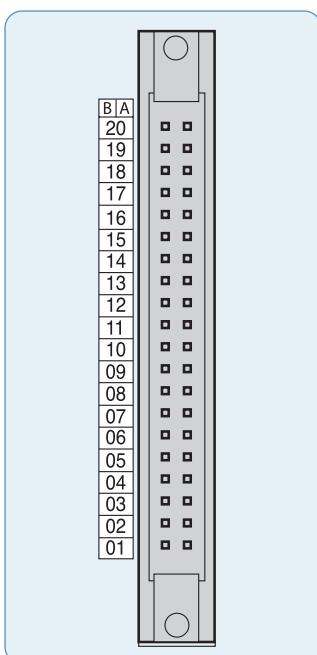


| Item | | XBF-PD02A |
|--------------------------------|---------------------------------------|--|
| N0. of control axis | | 2 axis |
| Pulse output type | | Line drive |
| Max. pulse output | | 2Mpps |
| Max. connection length | | 10m |
| Control mode | | Position control, Speed control, Speed/Position switching control, Position /Speed switching control |
| Interpolation | | Linear interpolation, Circula interpolation |
| Positioning data | | 150 operation data for each axis |
| Configuration tool | | Built-in function parameter of XG5000 |
| Back-up | | Flash memory |
| Positioning | Positioning method | Absolute / Incremental method |
| | Unit | pulse |
| | Positioning range | -2,147,483,648 ~ 2,147,483,648 |
| | Speed range | 1~2,000,000 (pulse/sec) |
| | Acceleration/Deceleration type | Trapezoidal acceleration / deceleration |
| | Acceleration/Deceleration time | 0~65,535ms, Asymmetric acceleration / deceleration |
| Max. encoder input | | 200kpps(Line drive) |
| Error/Operation | | LED |
| I/O occupied points | | Fixed type: 64 points |
| Connection terminal | | 40pin connector |
| Current consumption(mA) | | 500 |

Names and Functions

| No. | Name | Descriptions |
|-----|----------------|--|
| ① | RUN LED | 1. RUN ▶ Displays the hardware operation status • On: Normal status • Off: Abnormal status |
| ② | Terminal block | 2. X_AXIS, Y_AXIS • On: Operation • Flickering: Error ▶ Terminals to connect the MPG, external device and drive device. |

Terminal



| Pin number | | Signal name | |
|------------|--------|-------------|---|
| X axis | Y axis | | |
| B20 | | MPG A+ | Manual Pulse Generator / Encoder A+ input |
| A20 | | MPG A- | Manual Pulse Generator / Encoder A- input |
| B19 | | MPG B+ | Manual Pulse Generator / Encoder B+ input |
| A19 | | MPG B- | Manual Pulse Generator / Encoder B- input |
| A18 | B18 | FP+ | Forward pulse + |
| A17 | B17 | FP- | Forward pulse - |
| A16 | B16 | RP+ | Reverse pulse + |
| A15 | B15 | RP- | Reverse pulse - |
| A14 | B14 | OV+ | High limit |
| A13 | B13 | OV- | Low limit |
| A12 | B12 | DOG | Near point |
| A11 | B11 | NC | - |
| A10 | B10 | | |
| A09 | B09 | COM | Common |
| A08 | B08 | NC | - |
| A07 | B07 | INP | Inposition signal |
| A06 | B06 | INP COM | Inposition signal common |
| A05 | B05 | CLR | Deviation counter clear signal |
| A04 | B04 | CLR COM | Deviation counter clear signal common |
| A03 | B03 | HOME +5V | Zero signal(DC 5V) |
| A02 | B02 | HOME COM | Zero signal Common |
| A01 | B01 | NC | - |

Specification



| Item | Specification | |
|---------------------------|--|--|
| | XBF-HO02A | XGF-HD02A |
| Count input signal | Signal | A-phase, B-phase |
| | Input type | Voltage input (Open Collector) |
| | Signal level | Differential input (Line Drive): DC 5/12/24V |
| Maximum coefficient speed | 200kpps | 500kpps (HTL input : 250kpps) |
| Number of channels | 2 Channels | |
| Coefficient range | Signed 32-bit (-2,147,483,648 ~ 2,147,483,647) | |
| Count mode | Linear Count (When 32-bit range exceeded, Carry / Borrow occurs, The count value stopped) Ring Count (Repeated count within setting range) | |
| Input pulse mode | 1-phase input | 1-phase input |
| | 2-phase input | 2-phase input |
| | CW/CCW | CW/CCW input |
| Up/down setting | 1-phase input | Increasing / Decreasing operation setting by B-phase input Increasing / Decreasing operation setting by program |
| | 2-phase input | Automatic setting by difference in phase |
| | CW/CCW | A-phase input: Increasing operation B-phase input: Decreasing operation |
| Multiplication function | 1-phase input | 1/2 multiplication |
| | 2-phase input | 1/2/4 multiplication |
| | CW/CCW | 1-multiplication |
| Control input | Signal | Preset instruction input, Auxiliary mode instruction input |
| | Signal level | DC 5V/12V/24V (by terminal selection) input type |
| | Signal type | Voltage |
| External output | Output points | 2-point/channel (for each channel): Terminal output available |
| | Type | Select single-compared (>, >=, =, <=, <) or section compared output (Included or excluded) |
| | Output type | Open collector output (Sink) |
| Operation status display | Input signal | A-phase input, B-phase input, Preset instruction input, Auxiliary mode instruction input |
| | Output signal | External output 0, External output 1 |
| | Busy status | Module Ready |
| Count enable | To be set through program (Count available only in enable status) | |
| Preset function | To be set through terminal or program | |
| Auxiliary mode function | Count clear, Count latch, Section count(time setting value: 0~60000ms), Measurement of input frequency(for respective input phase), Measurement of counts per hour(time setting value: 0~60000ms) Count prohibited function | |
| | | |
| | | |
| Terminal | 40 pin connector | |
| I/O occupied points | Fixed point: 64 | |
| Current consumption(mA) | 200 | 260 |
| Weight | 90g | |

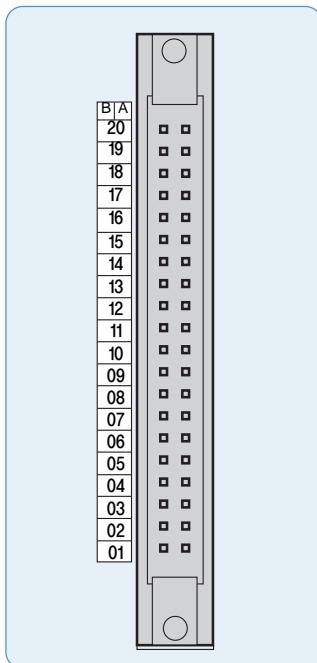
Names and Functions

| No. | Name | Descriptions |
|-----|-----------------------------------|--|
| ① | Run LED (ØA, ØB, P, G, 00, 01) | ► On: Relevant channel pulse inputting, Preset/Auxiliary function signal inputting, Outputting ► Off: No input of relevant channel pulse, No input of preset/Auxiliary function signal, No output of comparison |
| | Ready signal (RDY) | ► On: HSC module normal ► Off: Power off or CPU module reset, HSC module error • Flicker: HSC module error |
| ② | External wiring connector | Connector to connect with external I/O |

Modular type

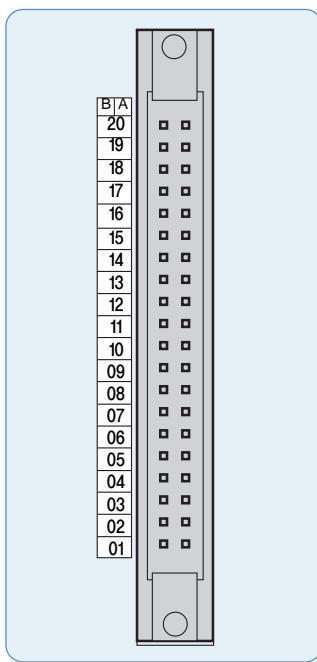
Programmable Logic Controller

Terminal (XBF-H002A)



| Pin arrangement | | Signal name | |
|-----------------|-------|-------------|------------------------------|
| B ch1 | A ch0 | | |
| 20 | 20 | A 24V | A phase pulse input 24V |
| 19 | 19 | A 12V | A phase pulse input 12V |
| 18 | 18 | A 5V | A phase pulse input 5V |
| 17 | 17 | A COM | A phase pulse input COM |
| 16 | 16 | B 24V | B phase pulse input 24V |
| 15 | 15 | B 12V | B phase pulse input 12V |
| 14 | 14 | B 5V | B phase pulse input 5V |
| 13 | 13 | B COM | B phase pulse input COM |
| 12 | 12 | P 24V | Preset input 24V |
| 11 | 11 | P 12V | Preset input 12V |
| 10 | 10 | P 5V | Preset input 5V |
| 09 | 09 | P COM | Preset input COM |
| 08 | 08 | G 24V | Auxiliary function input 24V |
| 07 | 07 | G 12V | Auxiliary function input 12V |
| 06 | 06 | G 5V | Auxiliary function input 5V |
| 05 | 05 | G COM | Auxiliary function input COM |
| 04 | 04 | OUT0 | Comparison output 0 |
| 03 | 03 | OUT1 | Comparison output 1 |
| 02 | 02 | 24V | External power input 24V |
| 01 | 01 | 24G | External power input GND |

Terminal (XBF-HD02A)



| Pin arrangement | | Signal name | |
|-----------------|-------|-------------|------------------------------------|
| B ch1 | A ch0 | | |
| 20 | 20 | A I + | A I phase differentiation input + |
| 19 | 19 | A I - | A I phase differentiation input - |
| 18 | 18 | A II + | A II phase differentiation input + |
| 17 | 17 | A II - | A II phase differentiation input - |
| 16 | 16 | B I + | B I phase differentiation input + |
| 15 | 15 | B I - | B I phase differentiation input - |
| 14 | 14 | B II + | B II phase differentiation input + |
| 13 | 13 | B II - | B II phase differentiation input - |
| 12 | 12 | P 24V | Preset input 24V |
| 11 | 11 | P 12V | Preset input 12V |
| 10 | 10 | P 5V | Preset input 5V |
| 09 | 09 | P COM | Preset input COM |
| 08 | 08 | G 24V | Auxiliary function input 24V |
| 07 | 07 | G 12V | Auxiliary function input 12V |
| 06 | 06 | G 5V | Auxiliary function input 5V |
| 05 | 05 | G COM | Auxiliary function input COM |
| 04 | 04 | OUT0 | Comparison output 0 |
| 03 | 03 | OUT1 | Comparison output 1 |
| 02 | 02 | 24V | External power input 24V |
| 01 | 01 | 24G | External power input GND |

Ethernet (XBL-EMTA)



| Item | XBL-EMTA |
|---|---|
| Communication spec. | 10 / 100 Base-TX |
| Protocol | TCP / IP, UDP / IP |
| Service | With LS PLCs With other devices Application |
| HS link sending / Receiving data | High-speed link, P2P service P2P service XGT Dedicated protocol Server/Client, Modbus/TCP Server/Client |
| No. of channel Connectable to upper stage | 200words / block (Max.64blocks) |
| Service | 6 channels |
| Media | Communication with PC (HMI) and external devices, High-speed communication among LSIS PLCs |
| Current consumption(mA) | UTP / STP Category 5 |
| | 300 |

RS-232C, RS-422 / 485



| Item | Built-in RS-232C | XBL-C21A | Built-in RS-485 | XBL-C41A |
|---------------------|--|---|-----------------|------------------|
| Interface | RS-232C 1ch | RS-232C 1ch | RS-485 1ch | RS-422 / 485 1ch |
| MODEM function | Remote communication via the external MODEM (XBL-C21A Only) | | | |
| Mode | Dedicated mode XG5000 mode P2P mode | 1:1 or 1:N via the dedicated protocol Program download, Upload and control via the remote control Communication defined by the protocol using XG-PD XGT / Modbus master | | |
| Operation mode | Server (slave) Client (master) | XGT / Modbus server, User-defined communication XGT / Modbus P2P Master, User-defined communication | | |
| Data format | Start Bit Data Bit Stop Bit Parity Setting | 1 7 or 8 1 or 2 Even / Odd / None Setting by XG-PD parameter | | |
| Synchronous | Asynchronous | | | |
| Speed (bps) | 1,200 / 2,400 / 4,800 / 9,600 / 19,200 / 38,400 / 57,600 / 115,200 bps | | | |
| Station number | Setting by XG-PD, Max. 32 stations | | | |
| Distance | RS-232C: Max.15m (Expansion by MODEM), RS-422/485: Max 500m | | | |
| MODEM communication | - | Support | - | - |
| Network | 1 : 1 | | 1 : N | |
| Diagnostic | Via LED and XG-PD | | | |
| Max. expansion | Built-in | 2 stages | Built-in | 2 stages |

RAPIEnet (XBL-EIMT)


| | Item | XBL- EIMT |
|-----------------------|---------------------------------------|--|
| Transmission standard | Transmission speed | 100Mbps |
| | Transmission method | Base band |
| | Max. extension distance between nodes | 100m |
| | Max. number of nodes | 64 |
| | Max. protocol size | 1,516 bytes |
| | Access method to service zone | CSMA / CD |
| | Frame error check | $CRC\ 32 = X^{32} + X^{26} + X^{23} + \dots + X^2 + X + 1$ |
| | Normal communication guarantee | Max. 1,200 (packet/sec) |
| Basic standard | Dimension (mm) | 90(H) x 27(W) x 60(D) |
| | Current consumption(mA) | 290 |
| | Weight (g) | 102 |

Ethernet/IP (XBL-EIPT)


| | Item | XBL- EIPT |
|----------------------------------|---|--|
| Transmission standard | Transmission speed | 100Mbps |
| | Transmission method | Base band |
| | Max. extension distince between nodes | 100m |
| | Access method to service zone | CSMA / CD |
| | Frame error check | $CRC\ 32 = X^{32} + X^{26} + X^{23} + \dots + X^2 + X + 1$ |
| Topology | | Line, Star |
| | The number of connections (Client / Server) | 16 / 32 |
| Number of Max. services (P2P) | TCP | 32 / 64 |
| | CIP (IO communication) | 2 |
| Number of Max. installations | | 2 |
| | | |
| Max. setting data size per block | Periodic client | 500 bytes |
| | Aperiodic client | 512 bytes |
| Basic standard | Dimension (mm) | 90(H) x 27(W) x 60(D) |
| | Current consumption(mA) | 290 |
| | Weight (g) | 102 |

**Profibus-DP Module
(XBL-PMEC)**



| Item | XBL-PMEC | |
|---|---|--------------------------------|
| Module Type | Master | |
| Network Type | Profibus-DP | |
| Standard | EN50170/DIN19245 | |
| Interface | RS-485 | |
| Transmission Route | Bus | |
| Modulation Type | NRZ(Non Return to Zero) | |
| MAC | Token Passing | |
| | Distance(m) | Transmission Speed(bps) |
| | 1,200 | 9.6k/19.2k/93.75k/187.5k |
| Max. Distance & Transmission Speed | 400 | 500k |
| | 200 | 1.5M |
| | 100 | 3M/6M/12M |
| | | 64 |
| Max. number of stations per network | 32(including master & repeater) | |
| Cable used | Electric-twist shielded pair cable | |
| Max. input size per slave | 244byte | |
| Max. output size per slave | 244byte | |
| Max. input size of master | 15,616 bytes(64 station x 244bytes/station) | |
| Max. output size of master | 15,616 bytes(64 station x 244bytes/station) | |
| Communication Transmission cycle | 10/20/50/100/200/500ms, 1/5/10s | |
| Communication Reception cycle | Main unit scan x 2 + Data reception time ² + Communication module scan | |
| Max. number of stations installations | 2 | |
| Communication Parameters to set | XG-PD, PROFICON | |
| Internal-consumed current(mA) | 300 | |
| Weight(g) | 86 (including connector: 122) | |

**CANopen Module
(XBL-CMEA, XBL-CSEA)**



| Item | XBL-CMEA | XBL-CSEA |
|----------------------------------|--|----------------------|
| Transmission Speed | 10, 20, 50, 100, 125, 250, 500, 800, 1000Kbps | |
| Num. of port | 1 | |
| Max. node | 32 | - |
| PDO | TPDO RPDO | Total 32 64 64 |
| Max. size of data per PDO | 8Byte | |
| PDO transfer type | Synchronous acyclic(0), synchronous cyclic(1~240), RTR(252~253), time-event trigger(254~255) | |
| Support SDO | Client 127/Server 1 | Server 1 |
| SDO transfer type | Expedited, Normal | - |
| Access method | CSMA/BA(Carrier Sense Multiple Access/Bitwise Arbitration) | |
| Topology | BUS | |
| SYNC Service | Producer Cycle : 20~5000ms | Consumer |
| NMT. eode control | NMT master | NMT slave |
| Emergency | Save the last five per slave | Save up to last 10 |
| NMT. error control | Heartbeat, Life guarding | Heartbeat |
| Network scan | O | - |
| Size(mm) | 90(H)X27(W)X60(D) | |
| Current consumption(mA) | 211 | 202 |
| Weight(g) | 78 | |

Expansion | Option modules / Smart link

Programmable Logic Controller

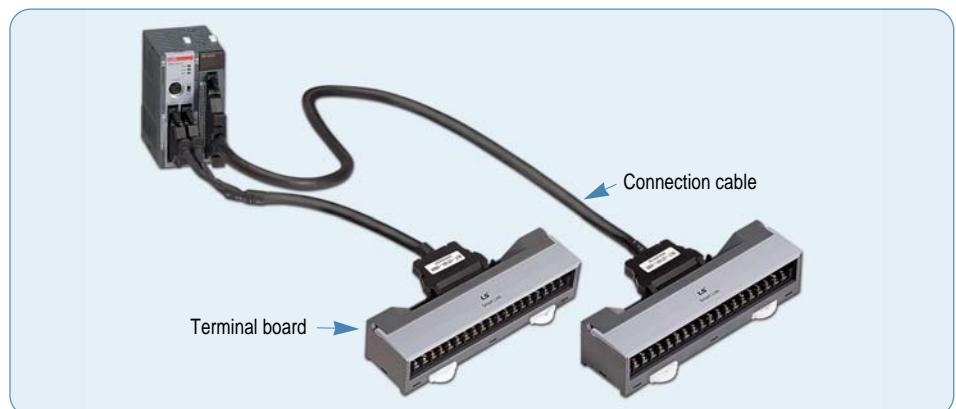
Option modules



Option modules

| | |
|-----------|--|
| XBO-AD02A | Voltage/Current, Input 2 chs |
| XBO-DA02A | Voltage/Current, Output 2 chs |
| XBO-AH02A | Voltage/Current, Input 1 ch |
| | Voltage/Current, Output 1 ch |
| XBO-TC02A | TC(Thermocouple), Input 2 chs |
| XBO-RTCA | RTC(Real Time Clock) |
| XBO-DC04A | DC 24V, Input 4 points |
| XBO-TN04A | Transistor(Sink), Output 4 point |
| XBO-RD01A | RTD(Resistance Temperature Detect, Input 1 ch) |

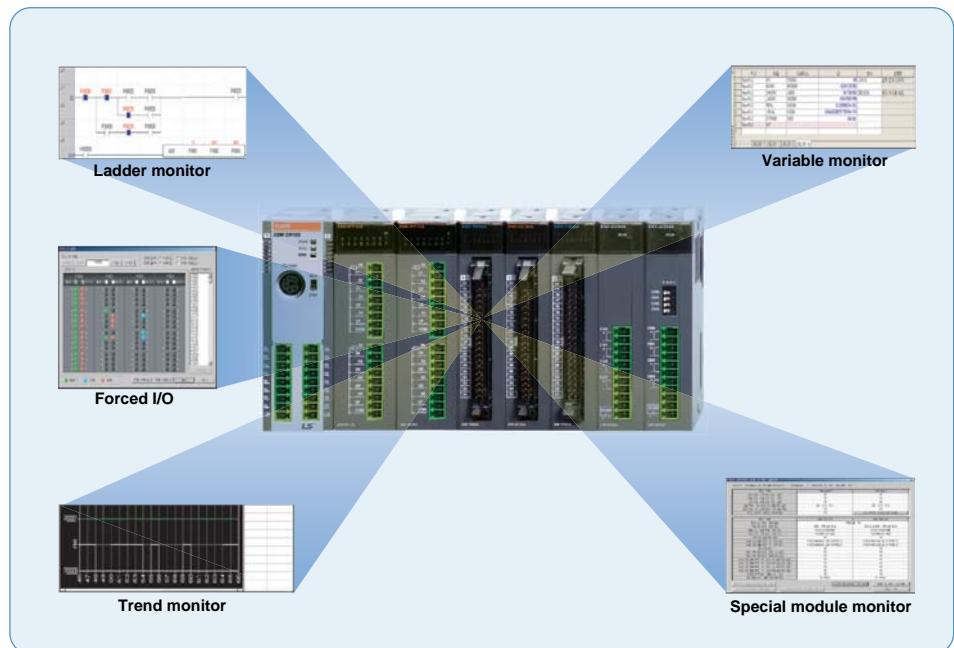
Smart link



| Terminal board | Connection cable | XBM-DN16S XBM-DN32S | XBE-DC32A | XBE-TN32A | XBE-TP32A | Cable length |
|---|--------------------|------------------------|-----------|-----------|-----------|--------------|
| TG7-1H40S (Terminal board) | R40H/20HH-05S-XBM3 | ● | - | - | - | 0.5m |
| | R40H/20HH-10S-XBM3 | ● | - | - | - | 1.0m |
| | C40HH-05SB-XBI | - | ● | ● | ● | 0.5m |
| TG7-1H40CA (Terminal board, Common) | C40HH-10SB-XBI | - | ● | ● | ● | 1.0m |
| | C40HH-15SB-XBI | - | ● | ● | ● | 1.5m |
| | C40HH-20SB-XBI | - | ● | ● | ● | 2.0m |
| | C40HH-30SB-XBI | - | ● | ● | ● | 3.0m |
| | C40HH-05SB-XBI | - | - | ● | - | 0.5m |
| | C40HH-10SB-XBI | - | - | ● | - | 1.0m |
| | C40HH-15SB-XBI | - | - | ● | - | 1.5m |
| R32C-NS5A-40P (Relay board : sink) | C40HH-20SB-XBI | - | - | ● | - | 2.0m |
| | C40HH-30SB-XBI | - | - | ● | - | 3.0m |
| | C40HH-05PH-XBP | - | - | - | ● | 0.5m |
| | C40HH-15PH-XBP | - | - | - | ● | 1.5m |
| | C40HH-20PH-XBP | - | - | - | ● | 2.0m |
| R32C-PS5A-40P (Relay board : source) | C40HH-05PH-XBP | - | - | - | ● | 0.5m |
| | C40HH-15PH-XBP | - | - | - | ● | 1.5m |
| | C40HH-20PH-XBP | - | - | - | ● | 2.0m |

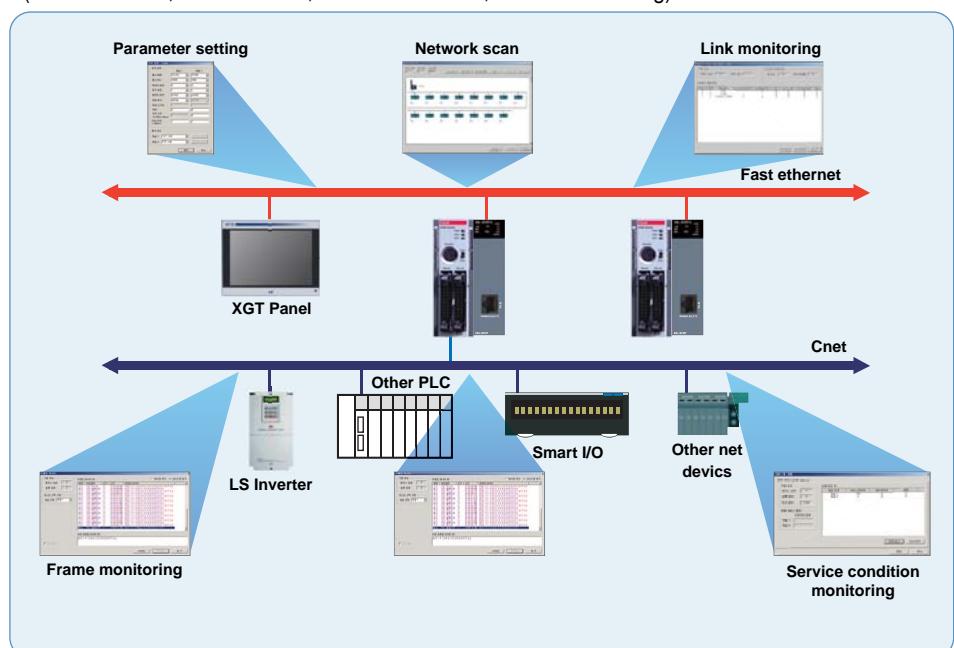
XG5000
(Programming software)

- Program editing & Engineering software
- Windows-based easy operation
- Multi-PLC, Multi-programming support
- Various monitoring and diagnosis functions
- Vista 2000, XP (Limited use in Windows 98, ME)



XG -PD
(Network setting software)

- Convenient network setting
- Extended monitoring function for network system and communication modules
- Fast interface with CPU by effective network management
- Various built-in diagnosis, functions
(CPU condition, Link conditon, Service condition, Frame monitoring)



Product list

Programmable Logic Controller

Product list

| Item | Model | Specifications |
|--|----------------|---|
| Block type unit (Economic type) | XBC/XEC-DR10E | AC 100 - 240V, 6 points DC input, 4 point Relay output |
| | XBC/XEC-DR14E | AC 100 - 240V, 8 points DC input, 6 point Relay output |
| | XBC/XEC-DR20E | AC 100 - 240V, 12 points DC input, 8 point Relay output |
| | XBC/XEC-DR30E | AC 100 - 240V, 18 points DC input, 12 point Relay output |
| | XBC/XEC-DN10E | AC 100 - 240V, 6 points DC input, 4 point transistor output (Sink) |
| | XBC/XEC-DN14E | AC 100 - 240V, 8 points DC input, 6 point transistor output (Sink) |
| | XBC/XEC-DN20E | AC 100 - 240V, 12 points DC input, 8 point transistor output (Sink) |
| | XBC/XEC-DN30E | AC 100 - 240V, 18 points DC input, 12 point transistor output (Sink) |
| | XBC/XEC-DP10E | AC 100 - 240V, 6 points DC input, 4 point transistor output (Source) |
| | XBC/XEC-DP14E | AC 100 - 240V, 8 points DC input, 6 point transistor output (Source) |
| | XBC/XEC-DP20E | AC 100 - 240V, 12 points DC input, 8 point transistor output (Source) |
| | XBC/XEC-DP30E | AC 100 - 240V, 18 points DC input, 12 point transistor output (Source) |
| Block type unit (High performance type) | XBC/XEC-DR32H | AC 100 - 240V, DC24 input 16 points, relay output 16 points |
| | XBC/XEC-DR64H | AC 100 - 240V, DC24 input 32 points, relay output 32 points |
| | XBC/XEC-DN32H | AC 100 - 240V, DC24 input 16 points, transistor output 16 points (Sink) |
| | XBC/XEC-DN64H | AC 100 - 240V, DC24 input 32 points, transistor output 32 points (Sink) |
| | XEC-DP32H | AC 100 - 240V, DC24 input 16 points, transistor output 16 points (Source) |
| | XEC-DP64H | AC 100 - 240V, DC24 input 32 points, transistor output 32 points (Source) |
| | XBC-DR32H/DC | DC 24V, DC24 input 16 points, relay output 16 points |
| | XBC-DR64H/DC | DC 24V, DC24 input 32 points, relay output 32 points |
| | XBC-DN32H/DC | DC 24V, DC24 input 16 points, transistor output 16 points (Sink) |
| | XBC-DN64H/DC | DC 24V, DC24 input 32 points, transistor output 32 points (Sink) |
| | XEC-DR32H/D1 | DC 12/24V, DC12/24 input 16 points, relay output 16 points |
| | XEC-DR64H/D1 | DC 12/24V, DC12/24 input 32 points, relay output 32 points |
| Block type unit (Standard type) | XBC/XEC-DR20SU | AC 100 - 240, DC24V input 12 points, relay output 8 points |
| | XBC/XEC-DR30SU | AC 100 - 240, DC24V input 18 points, relay output 12 points |
| | XBC/XEC-DR40SU | AC 100 - 240, DC24V input 24 points, relay output 16 points |
| | XBC/XEC-DR60SU | AC 100 - 240, DC24V input 36 points, relay output 24 points |
| | XBC/XEC-DN20SU | AC 100 - 240, DC24V input 12 points, transistor output 8 points (Sink) |
| | XBC/XEC-DN30SU | AC 100 - 240, DC24V input 18 points, transistor output 12 points (Sink) |
| | XBC/XEC-DN40SU | AC 100 - 240, DC24V input 24 points, transistor output 16 points (Sink) |
| | XBC/XEC-DN60SU | AC 100 - 240, DC24V input 36 points, transistor output 24 points (Sink) |
| | XBC/XEC-DP20SU | AC 100 - 240, DC24V input 12 points, transistor output 8 points (Source) |
| | XBC/XEC-DP30SU | AC 100 - 240, DC24V input 18 points, transistor output 12 points (Source) |
| | XBC/XEC-DP40SU | AC 100 - 240, DC24V input 24 points, transistor output 16 points (Source) |
| | XBC/XEC-DP60SU | AC 100 - 240, DC24V input 36 points, transistor output 24 points (Source) |
| Modular type unit | XBM-DR16S | DC 24V, 8-point DC 24V input, 8-point relay output |
| | XBM-DN16S | DC 24V, 8-point DC 24V input, 8-point TR output |
| | XBM-DN32S | DC 24V, 16-point DC 24V input, 16-point TR output |

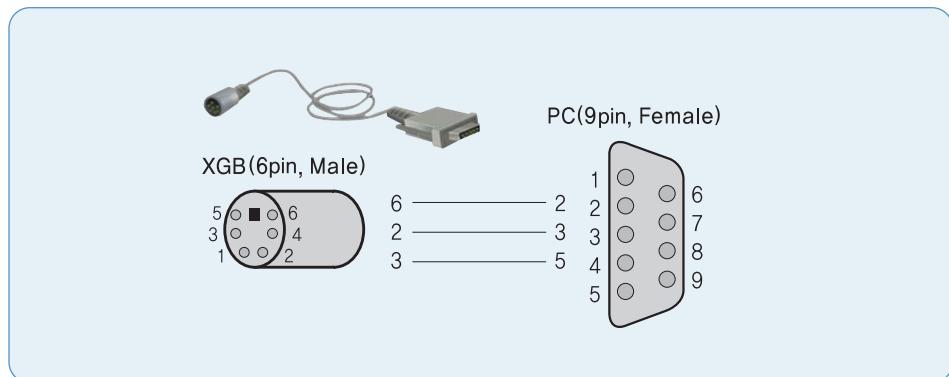
Product list

| Item | Model | Specifications |
|----------------------|-----------|--|
| Expansion I/O module | XBE-DC08A | 8-point DC 24V input |
| | XBE-DC16A | 16-point DC 24V input |
| | XBE-DC32A | 32-point DC 24V input |
| | XBE-RY08A | 8-point relay output |
| | XBE-RY16A | 16-point relay output |
| | XBE-TN08A | 8-point Transistor (sink) output |
| | XBE-TN16A | 16-point Transistor (sink) output |
| | XBE-TN32A | 32-point Transistor (sink) output |
| | XBE-TP08A | 8-point Transistor (source) output |
| | XBE-TP16A | 16-point Transistor (source) output |
| Special module | XBE-TP32A | 32-point Transistor (source) output |
| | XBE-DR16A | 8-point DC 24V input, 8-point relay output |
| | XBF-AD04A | 4-channel analog input (current/voltage) |
| | XBF-AD04C | 4-channel analog input(current/voltage, resolution : 1/16000) |
| | XBF-AH04A | 2-channel analog input (current/voltage)/2-channel analog output (current/voltage) |
| | XBF-DV04A | 4-channel analog output (voltage) |
| | XBF-DV04C | 4-channel analog input(voltage, resolution : 1/16000) |
| | XBF-DC04A | 4-channel analog output (current) |
| | XBF-DC04C | 4-channel analog input(current, resolution : 1/16000) |
| | XBF-RD04A | 4-channel RTD input |
| Special module | XBF-TC04S | 4-channel Thermocouple input |
| | XBF-PD2A | Line drive 2 axis |
| | XBF-AD08A | 8-channel analog input(Current/voltage) |
| | XBF-HO02A | 2-channel High-speed counter input(Open collector) |
| | XBF-HD02A | 2-channel High-speed counter input(Line drive) |
| | XBL-C41A | Cnet (RS-422/485), 1ch |
| Communication module | XBL-C21A | Cnet (RS-232C), 1ch |
| | XBL-EMTA | Fast Ethernet (100Mbps), 1ch |
| | XBL-EIMT | RAPIEnet, 2 ch |
| | XBL-EIPT | Ethernet/IP, 2 ch |
| | XBL-EIMF | RAPIEnet I/F, Max. 2km(Fiber 2ch.), 100Mbps |
| | XBL-EIMH | RAPIEnet I/F(Twisted pair 1ch, Fiber 2 ch.), 100Mbps |
| | XBL-PMEC | Profibus-DP, Master, RS-485 |
| | XBL-CMEA | CANopen(10, 20, 50, 100, 125, 250, 500, 800, 1000Kbps, Num of PDO : 32) |
| Loader cable | XBL-CSEA | CANopen(10, 20, 50, 100, 125, 250, 500, 800, 1000Kbps, Num of PDO : 64) |
| | PMC-310S | Connection cable (PC to PLC), 9pin(PC)-6pin(PLC) |
| Memory module | USB-301A | Connection cable (PC to PLC), USB |
| | XBO-M2MB | Memory |
| Option modules | XBO-AD02A | Voltage/Current, Input 2 ch |
| | XBO-DA02A | Voltage/Current, Output 2 ch |
| | XBO-AH02A | Voltage/Current, Input 1ch / Voltage/Current, Output 1ch |
| | XBO-TC02A | TC (Thermo couple), Input 2 ch |
| | XBO-RTCA | RTC (Real time clock), Battery |
| | XBO-DC04A | DC 24V, Input 4 points |
| | XBO-TN04A | TR (Sink), Output 4 points |
| | XBO-RD01A | RTD (Resistance temperature detector), Input 1ch |

Product list

| Terminal board | Connection cable | XBM-DN16S XBM-DN32S | XBE-DC32A | XBE-TN32A | XBE-TP32A | Cable length |
|---|--------------------|------------------------|-----------|-----------|-----------|--------------|
| TG7-1H40S (Terminal board) | R40H/20HH-05S-XBM3 | ● | - | - | - | 0.5m |
| | R40H/20HH-10S-XBM3 | ● | - | - | - | 1.0m |
| TG7-1H40CA (Terminal board, Common) | C40HH-05SB-XBI | - | ● | ● | ● | 0.5m |
| | C40HH-10SB-XBI | - | ● | ● | ● | 1.0m |
| R32C-NS5A-40P (Relay board: sink) | C40HH-15SB-XBI | - | ● | ● | ● | 1.5m |
| | C40HH-20SB-XBI | - | ● | ● | ● | 2.0m |
| R32C-PS5A-40P (Relay board:source) | C40HH-30SB-XBI | - | ● | ● | ● | 3.0m |
| | C40HH-05SB-XBI | - | - | ● | - | 0.5m |
| R32C-PS5A-40P (Relay board:source) | C40HH-10SB-XBI | - | - | ● | - | 1.0m |
| | C40HH-15SB-XBI | - | - | ● | - | 1.5m |
| R32C-PS5A-40P (Relay board:source) | C40HH-20SB-XBI | - | - | ● | - | 2.0m |
| | C40HH-30SB-XBI | - | - | ● | - | 3.0m |
| R32C-PS5A-40P (Relay board:source) | C40HH-05PH-XBP | - | - | - | ● | 0.5m |
| | C40HH-15PH-XBP | - | - | - | ● | 1.5m |
| R32C-PS5A-40P (Relay board:source) | C40HH-20PH-XBP | - | - | - | ● | 2.0m |

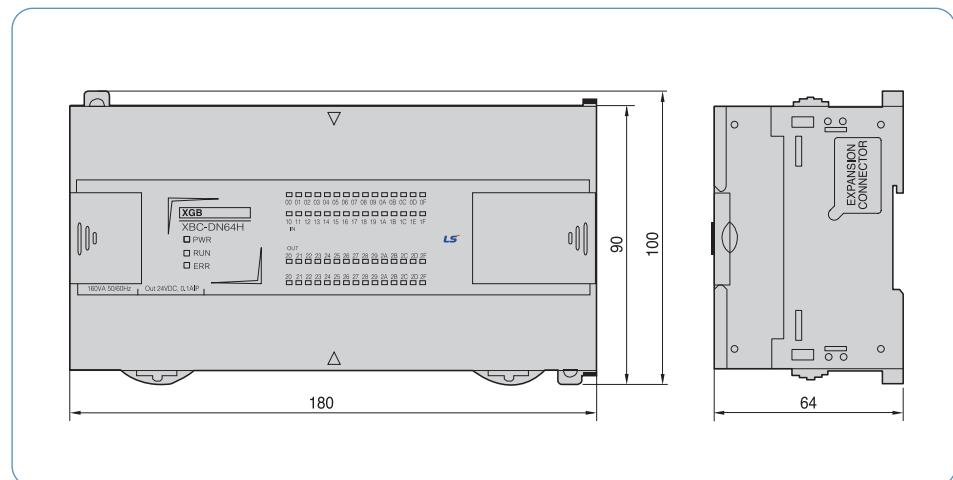
Download cable diagram



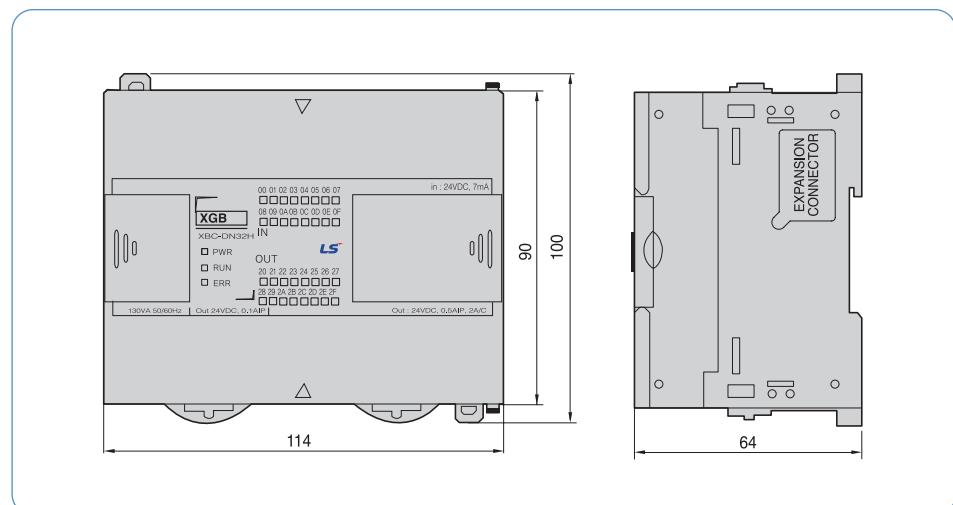
XGB Dimension

Block type unit

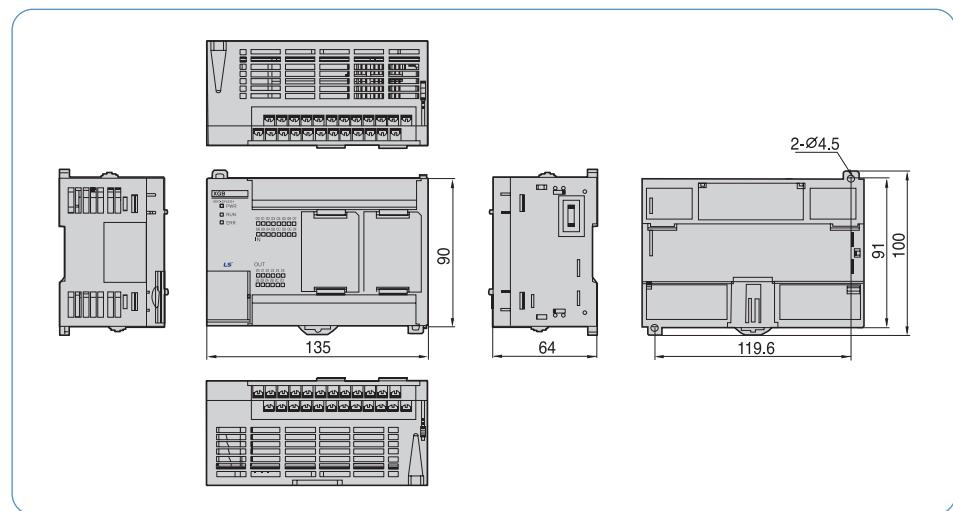
XBC/XEC-H type



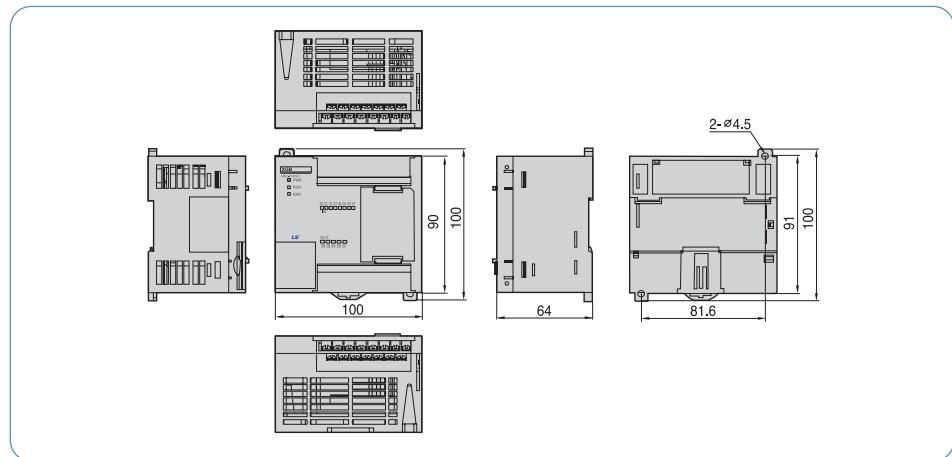
XBC/XEC-H type



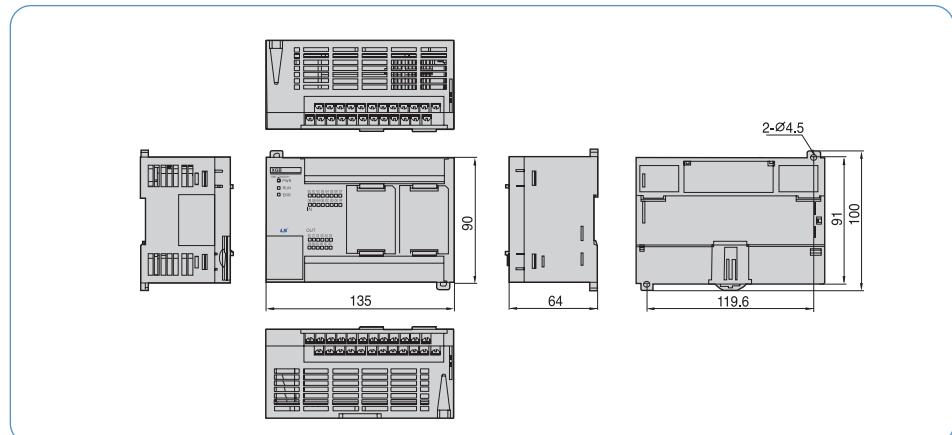
XBC/XEC-SU type



XBC-E type

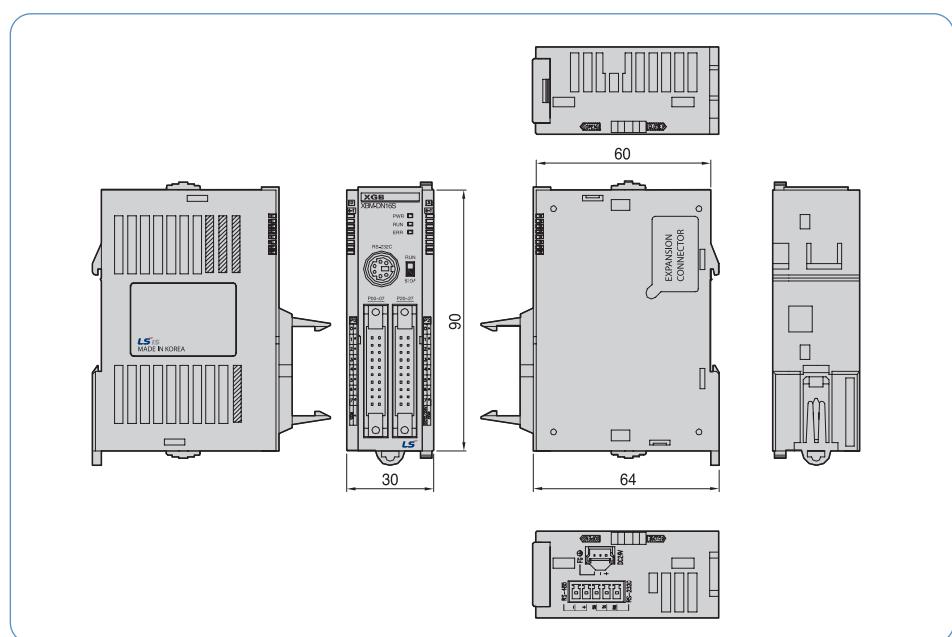


XBC-E type



Modular type unit

XBM-S type



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Wuxi Factory (China)



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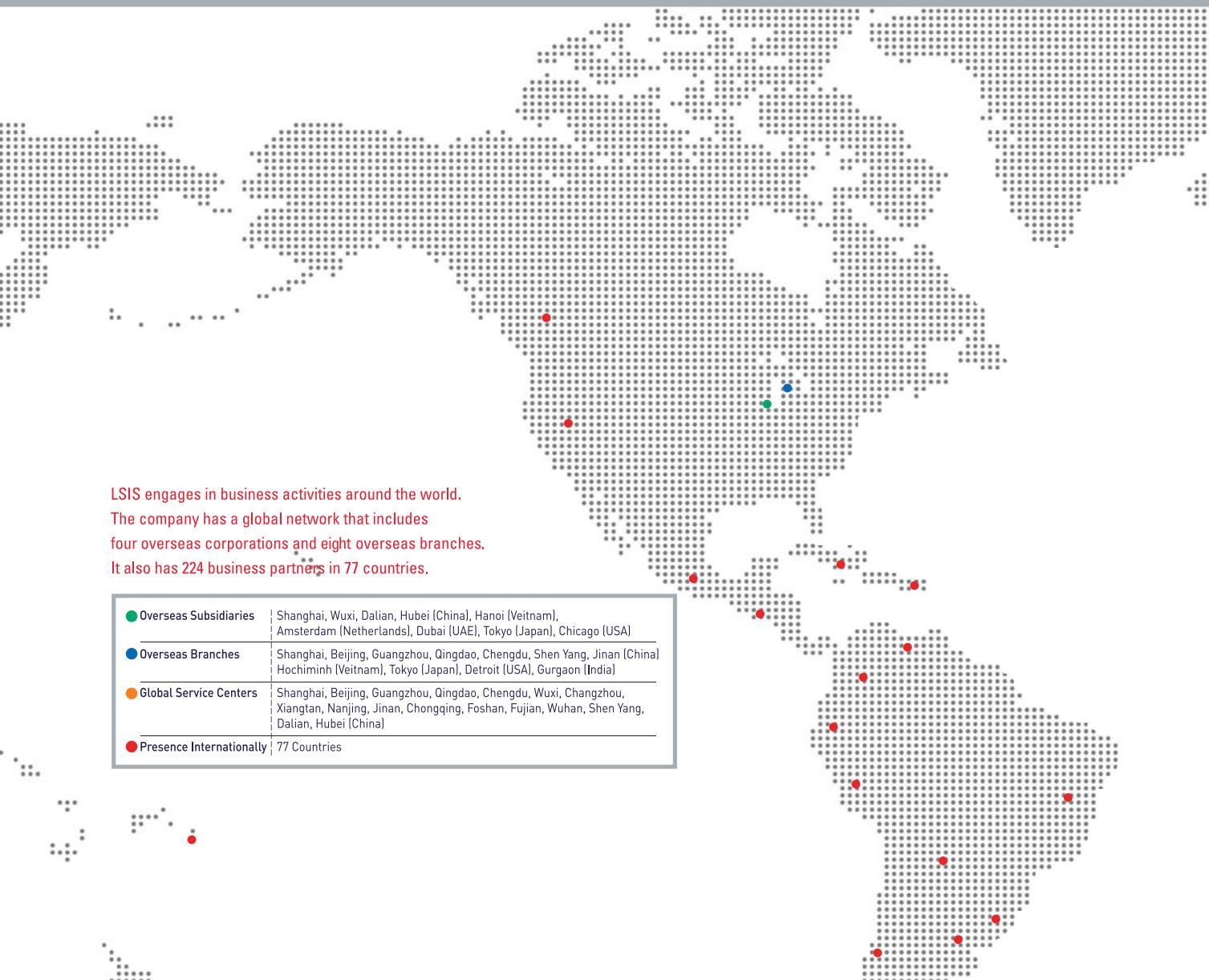
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- Contact the nearest authorized service facility for examination, repair, or adjustment.
- Please contact qualified service technician when you need maintenance.
Do not disassemble or repair by yourself !
- Any maintenance and inspection shall be performed by the personnel having expertise concerned.

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