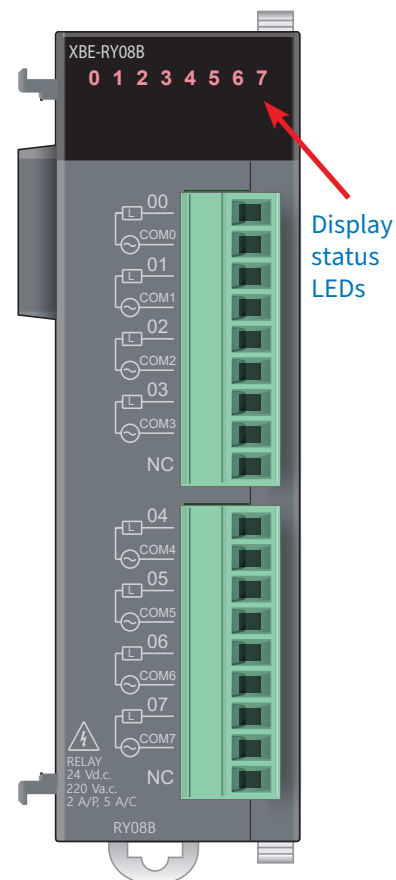


## XBE-RY08B Digital Output Module

| Part Number             | Price   | Classification | Description                                                                                                                                                           | Drawing |
|-------------------------|---------|----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|
| <b><u>XBE-RY08B</u></b> | \$95.00 | Digital Output | LS Electric XGB relay output module, 8-point, 125 VDC/250 VAC, (8) Form A, 8 isolated common(s), 1 point(s) per common, 2A/point. Removable terminal blocks included. | PDF     |

| General Specifications       |                      | XBE-RY08B                                                                  |
|------------------------------|----------------------|----------------------------------------------------------------------------|
| Output Point                 |                      | 8 point                                                                    |
| Insulation Method            |                      | Relay insulation                                                           |
| Rated Load Voltage           |                      | 24VDC (resistive load) / 220VAC (COS $\Psi$ =1)                            |
| Rated Load Current           |                      | 2A                                                                         |
| Minimum Load Voltage/Current |                      | 5VDC / 1mA                                                                 |
| Maximum Load Voltage         |                      | 250VAC, 124VDC                                                             |
| Off-leakage Current          |                      | 0.1 mA (220VAC, 60Hz)                                                      |
| Maximum On/Off Frequency     |                      | 3,600 times/hour                                                           |
| Over Voltage Protection      |                      | None                                                                       |
| Service Life                 | Mechanical           | 20 million times or more                                                   |
|                              | Electrical           | Rated load voltage / current 100,000 times or more                         |
|                              |                      | 200VAC / 1.5 A, 240VAC / 1A (COS $\Psi$ =0.7) 100,000 times or more        |
|                              |                      | 200VAC / 1A, 240VAC / 0.5 A (COS $\Psi$ =0.35) 100,000 times or more       |
| Response Time                | Off $\rightarrow$ On | 10ms or less                                                               |
|                              | On $\rightarrow$ Off | 12ms or less                                                               |
| Common Method                |                      | 1 point / COM                                                              |
| Proper Cable Size            |                      | Standard cable 0.3–0.75 mm <sup>2</sup> (external diameter 2.8 mm or less) |
| Current Consumption          |                      | 230mA (when all point ON)                                                  |
| Operation Indicator          |                      | Output ON, LED ON                                                          |
| External Connection Method   |                      | 9 point terminal block connector x 2                                       |
| Weight                       |                      | 81g                                                                        |



## XBE-RY08B - Digital I/O Module Configuration

### Direct Variables

The base rack slot number determines the Direct Variable name for the module. Each slot is automatically allocated 64 input points and 64 output points. See the chart below for the actual input direct variable assignments.

For Direct Variable nomenclature explanation, see [Direct Variable User Programming Memory](#).

| Part Number             | PLC Memory Allocation                                       | Actual I/O Direct Variable |
|-------------------------|-------------------------------------------------------------|----------------------------|
| <b><u>XBE-RY08B</u></b> | Input: %IX0.z.0 – %IX0.z.63<br>Output: %QX0.z.0 – %QX0.z.63 | %QX0.z.0 – %QX0.z.7        |

“z” denotes the module slot (2 to 8).

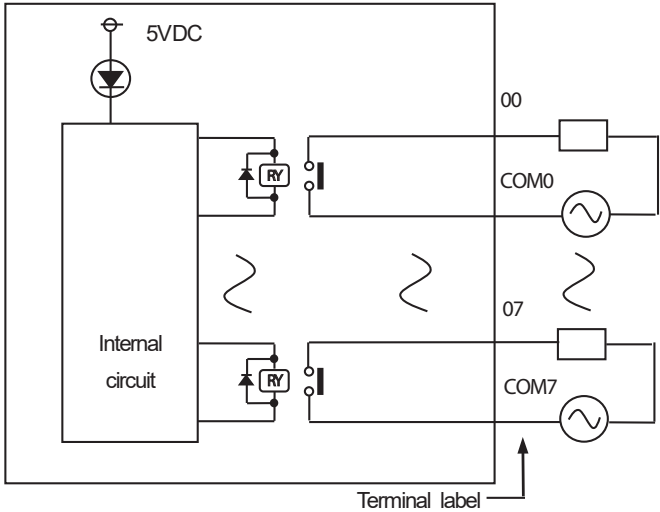
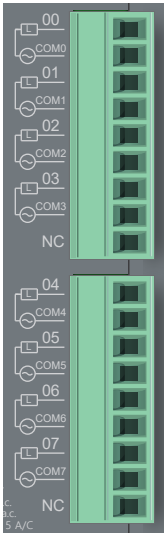
Follow the Quick start video to learn how to Register and Configure any Digital I/O Module.

[Digital Module Setup](#)



# XGB Digital Modules

## XBE-RY08B Digital Output Module Wiring

| XBE-RY08B Circuit Configuration                                                    |                       |                     |                                                                                      |
|------------------------------------------------------------------------------------|-----------------------|---------------------|--------------------------------------------------------------------------------------|
| Circuit Configuration                                                              | Top TB Description    | I/O Direct Variable | Terminal Block Image                                                                 |
|  | 00                    | %QX0.z.0            |  |
|                                                                                    | COM0                  | —                   |                                                                                      |
|                                                                                    | 01                    | %QX0.z.1            |                                                                                      |
|                                                                                    | COM1                  | —                   |                                                                                      |
|                                                                                    | 02                    | %QX0.z.2            |                                                                                      |
|                                                                                    | COM2                  | —                   |                                                                                      |
|                                                                                    | 03                    | %QX0.z.3            |                                                                                      |
|                                                                                    | COM3                  | —                   |                                                                                      |
|                                                                                    | NC                    | —                   |                                                                                      |
|                                                                                    | Bottom TB Description | I/O Direct Variable |                                                                                      |
|                                                                                    | 04                    | %QX0.z.4            |                                                                                      |
|                                                                                    | COM4                  | —                   |                                                                                      |
|                                                                                    | 05                    | %QX0.z.5            |                                                                                      |
|                                                                                    | COM5                  | —                   |                                                                                      |
|                                                                                    | 06                    | %QX0.z.6            |                                                                                      |
|                                                                                    | COM6                  | —                   |                                                                                      |
|                                                                                    | 07                    | %QX0.z.7            |                                                                                      |
|                                                                                    | COM7                  | —                   |                                                                                      |
|                                                                                    | NC                    | —                   |                                                                                      |

Note: In the I/O Direct Variable name, z=slot number.



# XGB Series PLC Family

## Environmental Specifications, all XGB Series Modules

| Item                          |                                      |                                                     | Specification                                    | Reference                    |              |
|-------------------------------|--------------------------------------|-----------------------------------------------------|--------------------------------------------------|------------------------------|--------------|
| Ambient Operating Temperature |                                      |                                                     | 0–55°C (32–131°F)                                | –                            |              |
| Storage Temperature           |                                      |                                                     | -25–70°C (-13–158°F)                             |                              |              |
| Ambient Operating Humidity    |                                      |                                                     | 5–95% relative humidity (non-condensing)         |                              |              |
| Storage Humidity              |                                      |                                                     | 5–95% relative humidity (non-condensing)         |                              |              |
| Vibration <sup>1</sup>        | Occasional Vibration                 | Frequency                                           | $5 \leq f < 8.4 \text{ Hz}$                      | 3.5 mm pulse width           | IEC61131-3-2 |
|                               |                                      |                                                     | $8.4 \leq f < 150\text{Hz}$                      | 9.8 m/s <sup>2</sup> (1G)    |              |
|                               | Continuous Vibration                 |                                                     | $5 \leq f < 8.4 \text{ Hz}$                      | 1.75 mm pulse width          |              |
|                               |                                      |                                                     | $8.4 \leq f < 150\text{Hz}$                      | 4.9 m/s <sup>2</sup> (0.5G)  |              |
| Shocks                        |                                      | Peak Acceleration                                   | 147 m/s <sup>2</sup> (15G)                       |                              |              |
|                               |                                      | Duration                                            | 11ms                                             |                              |              |
|                               |                                      | Pulse Wave Type                                     | Half-sine (3 times each direction per each axis) |                              |              |
| Noise Resistance              | Square Wave Impulse Noise            |                                                     | 1,500VAC<br>900VDC                               | LS Electric standard         |              |
|                               | Electrostatic Discharge              |                                                     | Voltage: 4kV (contact discharge)                 | IEC61131-3-2<br>IEC61000-4-2 |              |
|                               | Radiated Electromagnetic Field Noise |                                                     | 80–1,000 MHz, 10 V/m                             | IEC61131-3-2<br>IEC61000-4-3 |              |
|                               | Fast Transient / Burst Noise         | Classification                                      | Voltage                                          | IEC61131-3-2<br>IEC61000-4-4 |              |
|                               |                                      | Power Supply                                        | 2kV                                              |                              |              |
|                               |                                      | Digital/Analog Input/Output Communication Interface | 1kV                                              |                              |              |
| Environment                   |                                      |                                                     | Free from corrosive gases and excessive dust     | –                            |              |
| Attitude                      |                                      |                                                     | Less than 2,000m                                 |                              |              |
| Pollution Degree              |                                      |                                                     | Less than 2 (see note 2)                         |                              |              |
| Cooling Method                |                                      |                                                     | Air-cooling                                      |                              |              |

1 - Vibration of 10 times each direction (X, Y, and Z)

2 - Normally only nonconductive pollution occurs. Temporary conductivity caused by condensation is to be expected.



# XGB Series PLC Family

## Available I/O Modules

| XGB Series I/O Modules           |          |                                                                                                                                                                                                                                                                           |               |                |              |               |        |                        |                     |
|----------------------------------|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|----------------|--------------|---------------|--------|------------------------|---------------------|
| Part Number                      | Price    | Description                                                                                                                                                                                                                                                               | Digital Input | Digital Output | Analog Input | Analog Output | Motion | Bus Coupler Compatible | Smart Link Required |
| <b>Digital</b>                   |          |                                                                                                                                                                                                                                                                           |               |                |              |               |        |                        |                     |
| <a href="#"><u>XBE-DC08A</u></a> | \$59.00  | LS Electric XGB discrete input module, 8-point, 24 VDC, sinking/sourcing, 1 common(s), 8 point(s) per common. Removable terminal block included.                                                                                                                          | ✓             |                |              |               |        | ✓                      |                     |
| <a href="#"><u>XBE-DC16A</u></a> | \$70.00  | LS Electric XGB discrete input module, 16-point, 24 VDC, sinking/sourcing, 1 common(s), 16 point(s) per common. Removable terminal blocks included.                                                                                                                       | ✓             |                |              |               |        | ✓                      |                     |
| <a href="#"><u>XBE-DC16B</u></a> | \$78.00  | LS Electric XGB discrete input module, 16-point, 12-24 VDC, sinking/sourcing, 1 common(s), 16 point(s) per common. Removable terminal blocks included.                                                                                                                    | ✓             |                |              |               |        | ✓                      |                     |
| <a href="#"><u>XBE-DC32A</u></a> | \$97.00  | LS Electric XGB discrete input module, 32-point, 24 VDC, sinking/sourcing, 1 common(s), 32 point(s) per common. Requires XTB-40H terminal block and C40HH-xxSB-XBI cable.                                                                                                 | ✓             |                |              |               |        | ✓                      | ✓                   |
| <a href="#"><u>XBE-AC08A</u></a> | \$88.00  | LS Electric XGB discrete input module, 8-point, 120 VAC, 2 common(s), 4 point(s) per common. Removable terminal blocks included.                                                                                                                                          | ✓             |                |              |               |        | ✓                      |                     |
| <a href="#"><u>XBE-RY08A</u></a> | \$80.00  | LS Electric XGB relay output module, 8-point, 125 VDC/250 VAC, (8) Form A, 1 common(s), 8 point(s) per common, 2A/point, 5A/common. Removable terminal block included.                                                                                                    |               | ✓              |              |               |        | ✓                      |                     |
| <a href="#"><u>XBE-RY08B</u></a> | \$95.00  | LS Electric XGB relay output module, 8-point, 125 VDC/250 VAC, (8) Form A, 8 isolated common(s), 1 point(s) per common, 2A/point. Removable terminal blocks included.                                                                                                     |               | ✓              |              |               |        | ✓                      |                     |
| <a href="#"><u>XBE-RY16A</u></a> | \$110.00 | LS Electric XGB relay output module, 16-point, 125 VDC/250 VAC, (16) Form A, 2 isolated common(s), 8 point(s) per common, 2A/point, 5A/common. Removable terminal blocks included.                                                                                        |               | ✓              |              |               |        | ✓                      |                     |
| <a href="#"><u>XBE-TN08A</u></a> | \$60.00  | LS Electric XGB discrete output module, 8-point, 12-24 VDC, sinking, 1 common(s), 8 point(s) per common, 0.5A/point, 2A/common. Removable terminal blocks included.                                                                                                       |               | ✓              |              |               |        | ✓                      |                     |
| <a href="#"><u>XBE-TN16A</u></a> | \$78.00  | LS Electric XGB discrete output module, 16-point, 12-24 VDC, sinking, 1 common(s), 16 point(s) per common, 0.5A/point, 2A/common. Removable terminal blocks included.                                                                                                     |               | ✓              |              |               |        | ✓                      |                     |
| <a href="#"><u>XBE-TN32A</u></a> | \$109.00 | LS Electric XGB discrete output module, 32-point, 12-24 VDC, sinking, 1 common(s), 32 point(s) per common, 0.2A/point, 2A/common. Requires XTB-40H terminal block and C40HH-xxSB-XBI cable.                                                                               |               | ✓              |              |               |        | ✓                      | ✓                   |
| <a href="#"><u>XBE-TP08A</u></a> | \$62.00  | LS Electric XGB discrete output module, 8-point, 12-24 VDC, sourcing, 1 common(s), 8 point(s) per common, 0.5A/point, 2A/common. Removable terminal blocks included.                                                                                                      |               | ✓              |              |               |        | ✓                      |                     |
| <a href="#"><u>XBE-TP16A</u></a> | \$88.00  | LS Electric XGB discrete output module, 16-point, 12-24 VDC, sourcing, 1 common(s), 16 point(s) per common, 0.5A/point, 2A/common. Removable terminal blocks included.                                                                                                    |               | ✓              |              |               |        | ✓                      |                     |
| <a href="#"><u>XBE-TP32A</u></a> | \$93.00  | LS Electric XGB discrete output module, 32-point, 12-24 VDC, sourcing, 1 common(s), 32 point(s) per common, 0.2A/point, 2A/common. Requires XTB-40H terminal block and C40HH-xxSB-XBI cable.                                                                              |               | ✓              |              |               |        | ✓                      | ✓                   |
| <a href="#"><u>XBE-DN32A</u></a> | \$172.00 | LS Electric XGB discrete combo module, Input: 16-point, 24 VDC, sinking/sourcing, Output: 16-point, 12-24 VDC, sinking, 0.2A/point, 2A/common. Requires XTB-40H terminal block and C40HH-xxSB-XBI cable.                                                                  | ✓             | ✓              |              |               |        | ✓                      | ✓                   |
| <a href="#"><u>XBE-DR16A</u></a> | \$97.00  | LS Electric XGB discrete combo module, Input: 8-point, 24 VDC, sinking/sourcing, Output: 8-point, 125 VDC/250 VAC, relay, (8) Form A (SPST) relays, 2A/point, 5A/common. Removable terminal blocks included.                                                              | ✓             | ✓              |              |               |        | ✓                      |                     |
| <b>Motion</b>                    |          |                                                                                                                                                                                                                                                                           |               |                |              |               |        |                        |                     |
| <a href="#"><u>XBF-PN04B</u></a> | \$350.00 | LS Electric XGB 4-axis positioning module, EtherCAT Master, 1 high-speed input point(s), sinking/line driver (differential), 1-channel, differential and single-ended encoder input(s), (1) Ethernet 100Base-TX (RJ45) port(s). For use with LS Electric XEM-DxxxHx PLCs. |               |                |              |               | ✓      |                        |                     |
| <a href="#"><u>XBF-PN08B</u></a> | \$395.00 | LS Electric XGB 8-axis positioning module, EtherCAT Master, 1 high-speed input point(s), sinking/line driver (differential), 1-channel, differential and single-ended encoder input(s), (1) Ethernet 100Base-TX (RJ45) port(s). For use with LS Electric XEM-DxxxHx PLCs. |               |                |              |               | ✓      |                        |                     |
| <a href="#"><u>XBF-HO02A</u></a> | \$176.00 | LS Electric XGB counter input module, 200 kHz maximum switching frequency, 2 high-speed input point(s), 5-24 VDC, sinking, 2-channel, single-ended encoder input(s), 2 high-speed output point(s), 5-24 VDC, sinking, external 24 VDC required.                           |               |                |              |               | ✓      | ✓                      | ✓                   |
| <a href="#"><u>XBF-HD02A</u></a> | \$253.00 | LS Electric XGB counter input module, 500 kHz maximum switching frequency, 2 high-speed input point(s), 5-24 VDC, sinking, 2-channel, differential encoder input(s), 2 high-speed output point(s), 5-24 VDC, sinking, external 24 VDC required.                           |               |                |              |               | ✓      | ✓                      | ✓                   |

Note: See "Smart Link I/O System" on page tLSE-131 for the XTB-40H terminal block and cables. See "XGB PLC Replacement Terminals" on page tLSE-149 for replacement removable terminal blocks.

Continued on next page