



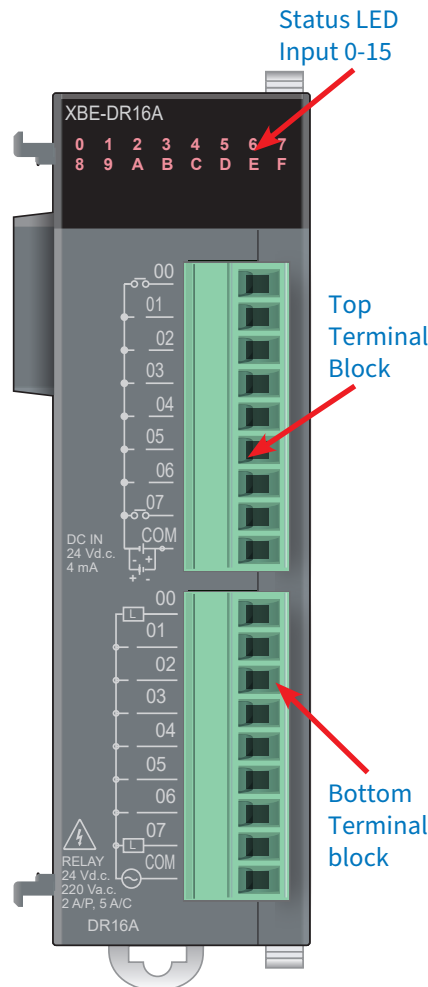
XGB Digital Modules

XBE-DR16A Digital Combo Module

XBE-DR16A is a combination module that has eight 24VDC sinking/sourcing inputs and 8 relay outputs.

Part Number	Price	Classification	Description	Drawing
XBE-DR16A	\$97.00	Digital Combo Module	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.	PDF

General Specifications		XBE-DR16A
Input Specifications	Input Point	8 point
	Rated Input Voltage	24VDC
	Rated Input Current	~ 4mA
	Operation Voltage Range	20.4 – 28.8 VDC (ripple rate <5%)
	On Voltage/Current	19VDC or higher / 3mA or higher
	Off Voltage/Current	6VDC or less / 1mA or less
	Input Resistance	~ 5.6kΩ
	Response Time	Off → On: 1/3/5/10/20/70/100 ms (set by CPU parameter) On → Off: Default: 3ms
Output Specifications	Common Method	8 point / COM
	Output Point	8 point
	Rated Voltage / Current	24VDC, 2A (resistive load) / 220VAC, 2A (COSΨ=1), 5A/COM
	Min. Load Voltage / Current	5VDC / 1mA
	Max. Load Voltage	250VAC, 125VDC
	Off Leakage Current	0.1 mA or less
	Max. On/Off frequency	3,600 times
	Surge Absorber	None
	Response Time	Off → On: 10ms or less On → Off: 12ms or less
	Common Method	8 point / COM
Insulation Method	Photocoupler insulation (input), Relay insulation (output)	
Insulation Pressure	560VACrms / 3 Cyle (altitude 2000m)	
Insulation Resistance	10MΩ or more by Megohmmeter	
Proper Cable Size	Stranded cable 0.3–0.75 mm ² (external diameter 2.8 mm or less)	
Current Consumption	230mA (when all inputs and outputs are On)	
Operation Indicator	Input On, LED On Output On, LED On	
External Connection Method	9 pin connector x 2	
Weight	81g	



XBE-DR16A - 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 used.

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

Part Number	PLC Memory Allocation	Actual I/O Direct Variable
XBE-DR16A	Input: %IX0.z.0 – %IX0.z.63 Output: %QX0.z.0 – %QX0.z.63	%IX0.z.0 – %IX0.z.7 %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](#)

XBE-DR16A Digital Combo Module Wiring

XBE-DR16A Input Circuit Configuration

Circuit Configuration	Terminal Description	I/O Direct Variable	Terminal Block Image
<p>The diagram shows the internal wiring for the input circuit. It features a 24VDC power source connected to terminal block TB9 (COM). Terminal TB8 is connected to the input side of a photocopler. Terminal TB1 is connected to the output side of the photocopler. The photocopler's output is connected to an internal circuit. A resistor (R) is connected between TB1 and the input side of the photocopler. A switch is connected between TB8 and the input side of the photocopler. The internal circuit is connected to the output side of the photocopler.</p>	00	%IX0.z.0	<p>The terminal block image shows a 16-pin terminal block with terminals labeled 00 through 07 and COM. The input terminals 00-07 are connected to the internal circuit.</p>
	01	%IX0.z.1	
	02	%IX0.z.2	
	03	%IX0.z.3	
	04	%IX0.z.4	
	05	%IX0.z.5	
	06	%IX0.z.6	
	07	%IX0.z.7	
	COM	n/a	

XBE-DR16A Output Circuit Configuration

<p>The diagram shows the internal wiring for the output circuit. It features a DC5V power source connected to the internal circuit. The internal circuit is connected to a relay (RY) and a switch. The switch is connected to terminal block TB1. Terminal TB8 is connected to the output side of the relay. Terminal TB9 is connected to the output side of the switch. The internal circuit is connected to the output side of the switch.</p>	00	%QX0.z.0	<p>The terminal block image shows a 16-pin terminal block with terminals labeled 00 through 07 and COM. The output terminals 00-07 are connected to the internal circuit.</p>
	01	%QX0.z.1	
	02	%QX0.z.2	
	03	%QX0.z.3	
	04	%QX0.z.4	
	05	%QX0.z.5	
	06	%QX0.z.6	
	07	%QX0.z.7	
	COM	n/a	

Note: Input Ambient Temp Derating: Derate 5% for each degree above 50°C. Max 55°C (25% derating at 55°C).