OMRON

Screw Terminal Block Cables

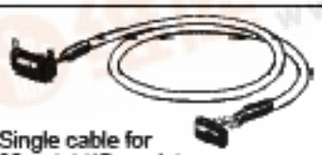
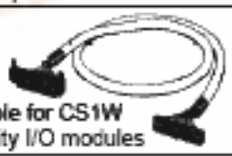
XW2Z

Pre-terminated Cables Simplify Connection of Terminal Blocks to PLC Modules

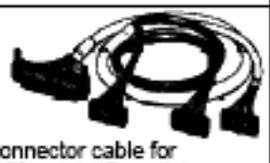
- Reduce setup time with cables pre-terminated for the exact PLC module in use
- No need to make custom connectors
- Crimp hook-terminated cables connect XW2B terminal blocks with PLC modules and input boards from any manufacturer

Ordering Information

■ CABLES

Appearance	Applicable terminal block	Cable length	Part number
 Single cable for 32-point I/O modules	XW2B-20G5 XW2B-20G4 XW2B-20G5-T XW2B-20G5-D XW2B-20G5-IN16	0.5 m (1.64 ft)	XW2Z-050A
		1 m (3.28 ft)	XW2Z-100A
		1.5 m (4.92 ft)	XW2Z-150A
		2 m (6.56 ft)	XW2Z-200A
		3 m (9.84 ft)	XW2Z-300A
		5 m (16.40 ft)	XW2Z-500A
 Single cable for 32- and 64-point I/O modules	XW2B-40G5 XW2B-40G4	0.5 m (1.64 ft)	XW2Z-050B
		1 m (3.28 ft)	XW2Z-100B
		1.5 m (4.92 ft)	XW2Z-150B
		2 m (6.56 ft)	XW2Z-200B
		3 m (9.84 ft)	XW2Z-300B
		5 m (16.40 ft)	XW2Z-500B
 Single cable for CS1W high-density I/O modules	XW2B-60G5 XW2B-60G4	1 m (3.28 ft)	XW2Z-100H-1
		2 m (6.56 ft)	XW2Z-200H-1
		3 m (9.84 ft)	XW2Z-300H-1
		5 m (16.40 ft)	XW2Z-500H-1
 Bifurcated cable for 32- and 64-point I/O modules	XW2C-20G5-IN16	1 m (3.28 ft) and 0.75 m (2.46 ft)	XW2Z-100D
		1.5 m (4.92 ft) and 1.25 m (4.10 ft)	XW2Z-150D
		2 m (6.56 ft) and 1.75 m (5.74 ft)	XW2Z-200D
		3 m (9.84 ft) and 2.75 m (9.02 ft)	XW2Z-300D
		5 m (16.40 ft) and 4.75 m (15.58 ft)	XW2Z-500D
 Bifurcated cable for CS1W high-density I/O modules	XW2B-40G5 and XW2B-20G5	1 m (3.28 ft) and 1 m (3.28 ft)	XW2Z-100H-2
		2 m (6.56 ft) and 2 m (6.56 ft)	XW2Z-200H-2
		3 m (9.84 ft) and 3 m (6.56 ft)	XW2Z-300H-2
		5 m (16.40 ft) and 5 m (16.40 ft)	XW2Z-500H-2

Cables (continued)

Appearance	Applicable terminal block	Cable length	Part number
 Three-connector cable for 48- and 96-point I/O modules	Three XW2B-20G5	1 m (3.28 ft) and 0.75 m (2.45 ft) and 1 m (3.28 ft)	XW2Z-100H-3
		2 m (6.56 ft) and 1.75 m (5.74 ft) and 2 m (6.56 ft)	XW2Z-200H-3
		3 m (9.84 ft) and 2.75 m (9.02 ft) and 3 m (9.84 ft)	XW2Z-300H-3
		5 m (16.40 ft) and 4.75 m (15.58 ft) and 5 m (16.40 ft)	XW2Z-500H-3
 Single cable terminated with crimp hooks	XW2B-20G5 XW2B-20G4	1 m (3.28 ft)	XW2Z-100F
		1.5 m (4.92 ft)	XW2Z-150F
		2 m (6.56 ft)	XW2Z-200F
		3 m (9.84 ft)	XW2Z-300F
		5 m (16.40 ft)	XW2Z-500F

Specifications

■ RATINGS/CHARACTERISTICS

Item	Rating
Rated current	1 A at 20°C (68°F)
Rated voltage	125 VAC
Contact resistance	20 mΩ max. with 100 mA at 20 mV max. (See Note 1)
Insulation resistance	100 MΩ min. at 500 VDC
Dielectric strength	500 VAC for 1 minute with a current leakage of 1 mA max. (See Note 2)
Enclosure rating	IP00
Electrical protection	Class 0
Ambient temperature	Operating: −25°C to 80°C (−13°F to 176°F)

Note: 1. The resistance indicated is the contact resistance of the connector.
2. The voltage indicated is the dielectric strength of the connector.

■ MATERIALS/FINISH

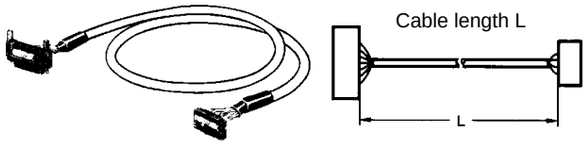
Item	Parts		Materials/Processing
Connector	XG4M-2030 XG4M-4030 XG4M-6030	Housing	Black PBT resin with glass (UL94V-0)
		Cover	
		Contact	Contact-carrying portion: Phosphor bronze and nickel plated with 0.15-μm-thick gold Press-fit portion: Phosphor bronze and nickel plated with 2.0-μm-thick tin
	XG4T-2004 XG4T-4004 XG4T-6004	Strain relief	Black PBT resin with glass (UL94V-0)
	FCN-367J024-AU/F FCN-367J040-AU/F	Housing	Black PBT resin (UL94V-0)
		Contact	Contact-carrying portion: Gold-plated phosphor bronze Press-fit portion: Tin-plated phosphor bronze
		Screw	Nickel-plated steel
Cable	UL2464 interface cable		Equivalent to AWG28
Crimp terminal	Fork-type crimp terminal		Equivalent to 1.25YAS3.5

Dimensions

Unit: mm (inch)

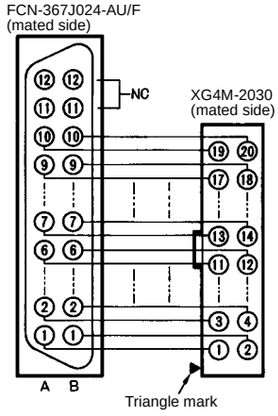
■ XW2Z-□□□A FOR 32-POINT PLC I/O MODULES (CONNECTOR TYPE)

The G79-□C Cable with a connector for the G7TC cannot be used for the XW2C due to a difference in wiring. The G79-□C Cable can be used for some of the XW2B Screw Terminal Blocks, refer to the XW2B data sheet.



Part number	Cable length L
XW2Z-050A	0.5 m (1.64 ft)
XW2Z-100A	1 m (3.28 ft)
XW2Z-150A	1.5 m (4.92 ft)
XW2Z-200A	2 m (6.56 ft)
XW2Z-300A	3 m (9.84 ft)
XW2Z-500A	5 m (16.40 ft)

Wiring Diagram



Combinations of Omron PLC I/O Modules and Screw Terminal Blocks

PLC I/O module	I/O points	Terminal block	Dedicated cable
C200H-ID215 C200H-OD215 C200H-MD215 C200H-MD115 C200H-MD501 C200H-ID501 C200H-OD501 C500-ID218CN C500-ID501CN C500-OD415CN C500-MD211CN C500-OD501CN	32 points input 32 points output 16 points in/16 points out 16 points in/16 points out 16 points in/16 points out 32 points input 32 points output 32 points input 32 points input 32 points output 16 points in/16 points out 32 points output	XW2B-20G5 XW2B-20G4 XW2B-40G5-T XW2B-20G5-D	XW2Z-□□□A
C200H-ID215 C200H-ID501 C500-ID218CN C500-ID501CN C200H-MD215 C200H-MD115 C200H-MD501 C500–MD211CN	32 points input 32 points input 32 points input 32 points input 16 points in/16 points out 16 points in/16 points out 16 points in/16 points out 16 points in/16 points out	XW2C-20G5-IN16 (See Note 3)	

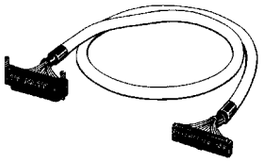
Note: 1. The G79-□ Cable with a connector for the G7TC cannot be used for the XW2C due to a difference in wiring. The G79-□C Cable can be used for some of the XW2B Screw Terminal Blocks, refer to the XW2B data sheet.

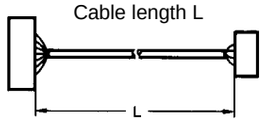
2. The Input or Output Modules above have two connectors, so each one can use up to two Terminal Blocks and two dedicated cables.

3. The XW2C is a dedicated Input Terminal Block. If the XW2C is connected to a PLC module that handles both input and output signals (modules with “MD” in the part number), only the input portion of the PLC module can be used.

Unit: mm (inch)

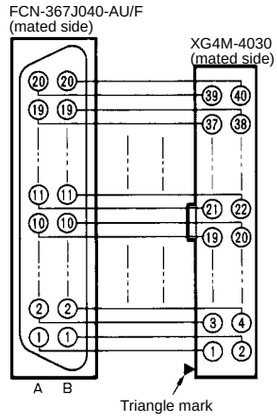
■ XW2Z-□□□B FOR 32-POINT AND 64-POINT PLC I/O MODULES (CONNECTOR TYPE)





Part number	Cable length L
XW2Z-050B	0.5 m (1.64 ft)
XW2Z-100B	1 m (3.28 ft)
XW2Z-150B	1.5 m (4.92 ft)
XW2Z-200B	2 m (6.56 ft)
XW2Z-300B	3 m (9.84 ft)
XW2Z-500B	5 m (16.40 ft)

Wiring Diagram

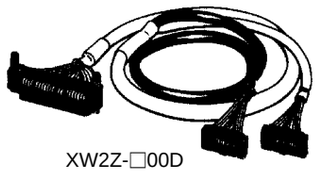


Combinations of Omron PLC I/O Modules and Screw Terminal Blocks

PLC I/O module	I/O points	Terminal block	Dedicated cable
CQM1-ID213 CQM1-OD213 C200H-ID216 C200H-OD218 C200H-OD21B	32 points	XW2B-40G5 XW2B-40G4	XW2Z-□□□B
C200H-ID111 C200H-ID217 C200H-OD219 C500-ID114 3G2A5-ID219 3G2A5-OD213	64 points		

Note: 32-point I/O modules use one Terminal Block and one dedicated cable.
64-point I/O modules use two Terminal Blocks and two dedicated cables.

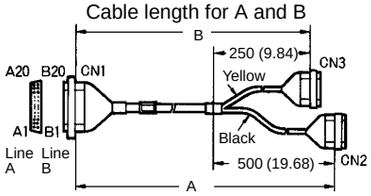
■ XW2Z-□□□D FOR 32-POINT AND 64-POINT PLC I/O MODULES (CONNECTOR TYPE)



XW2Z-□00D

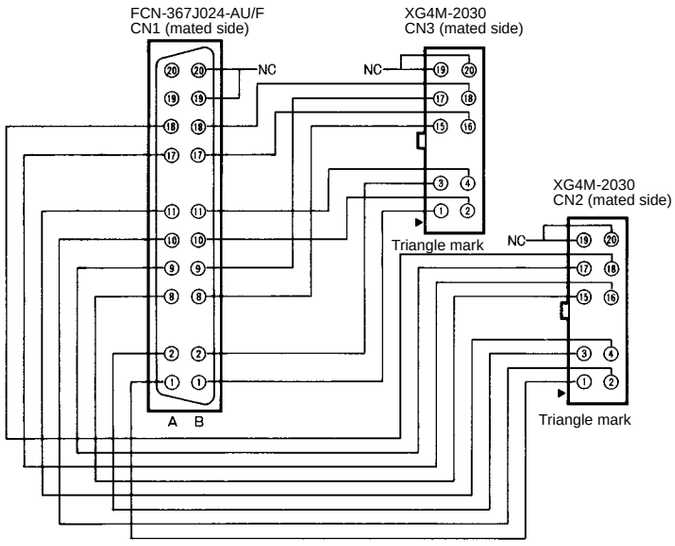
Part number	Cable length A	Cable length B
XW2Z-100D	1 m (3.28 ft)	0.75 m (2.46 ft)
XW2Z-150D	1.5 m (4.92 ft)	1.25 m (4.10 ft)
XW2Z-200D	2 m (6.56 ft)	1.75 m (5.74 ft)
XW2Z-300D	3 m (9.84 ft)	2.75 m (9.02 ft)
XW2Z-500D	5 m (16.40 ft)	4.75 m (15.58 ft)

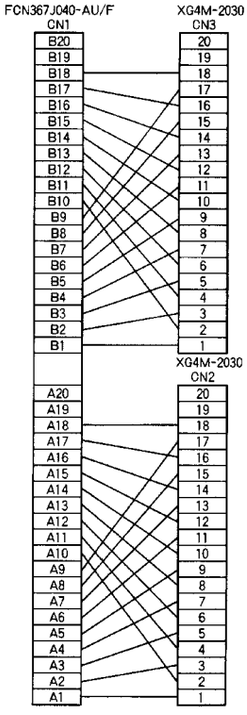
Cable length for A and B



Note: 1. CN2 (black cable side) is wired to line A of CN1 and CN3 (yellow cable side) is wired to line B of CN1.
2. The G79-□C Cable for the G7TC Terminal Block cannot be used for the XW2C due to a difference in wiring.

Wiring Diagram



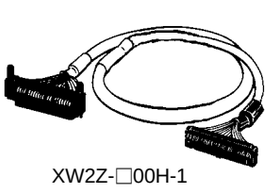


Combinations of Omron PLC I/O Modules and Screw Terminal Blocks

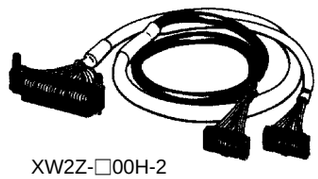
PLC I/O module	I/O points	Terminal block	Dedicated cable
CQM1-ID213 C200H-ID216	32 points	Two XW2C-20GS-IN16 input blocks	One XW2Z-□□□D cable
C200H-ID217 C500-ID114 3G2A5-ID219	64 points	Four XW2C-20GS-IN16 input blocks	Two XW2Z-□□□D cables

Unit: mm (inch)

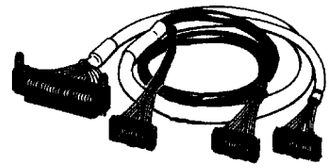
■ XW2Z-□□□H-□ FOR 96-POINT CS1 PLC I/O MODULES (CONNECTOR TYPE)



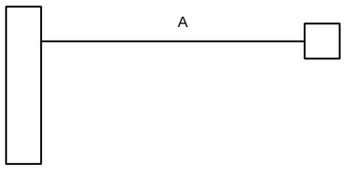
XW2Z-□00H-1

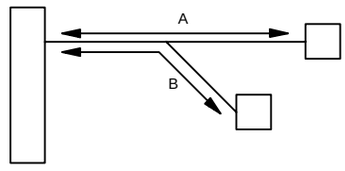


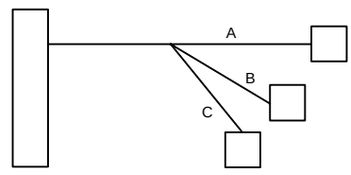
XW2Z-□00H-2



XW2Z-□00H-3







Part number	Cable length A
XW2Z-100H-1	1 m (3.28 ft)
XW2Z-200H-1	2 m (6.56 ft)
XW2Z-300H-1	3 m (9.84 ft)
XW2Z-500H-1	5 m (16.40 ft)

Part number	Cable length A	Cable length B
XW2Z-100H-2	1 m (3.28 ft)	1 m (3.28 ft)
XW2Z-200H-2	2 m (6.56 ft)	2 m (6.56 ft)
XW2Z-300H-2	3 m (9.84 ft)	3 m (9.84 ft)
XW2Z-500H-2	5 m (16.40 ft)	5 m (16.40 ft)

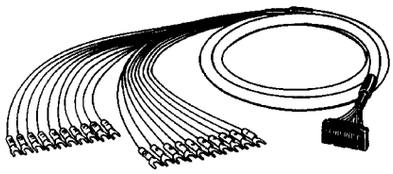
Part number	Cable length		
	A	B	C
XW2Z-100H-3	1 m (3.28 ft)	0.75 ft (2.45 ft)	1 m (3.28 ft)
XW2Z-200H-3	2 m (6.56 ft)	1.75 ft (5.74 ft)	2 m (6.56 ft)
XW2Z-300H-3	3 m (9.84 ft)	2.75 ft (9.02 ft)	3 m (9.84 ft)
XW2Z-500H-3	5 m (16.40 ft)	4.75 ft (15.58 ft)	5 m (16.40 ft)

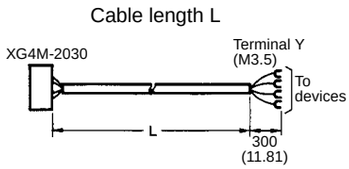
Combinations of Omron PLC I/O Modules and Screw Terminal Blocks

PLC I/O module	I/O points	Terminal blocks	Dedicated cable
CS1W-ID291, CS1W-OD291, CS1W-OD292 CS1W-MD291, CS1W-MD292	96 points	Two XW2B-60G□ terminal blocks	Two XW2Z-□□□H-1 cables
CS1W-ID291, CS1W-OD291, CS1W-OD292 CS1W-MD291, CS1W-MD292	96 points	Two XW2B-40G4 + XW2B-20G4 or two XW2B-40G5 + XW2B-20G5 terminal blocks	Two XW2Z-□□□H-2 cables
CS1W-ID291, CS1W-OD291, CS1W-OD292 CS1W-MD291, CS1W-MD292	96 points	Six XW2B-20G4 or six XW2B-20G5 terminal blocks	Two XW2Z-□□□H-3 cables

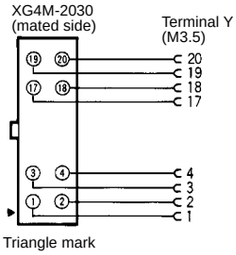
Note: For detailed information about connector pin-outs, refer to CS1 Operation Manual (W339), Appendix A.

■ XW2Z-□□□F CABLE WITH CRIMP TERMINALS (20 POLES)





Wiring Diagram



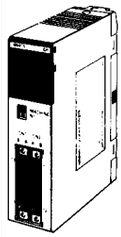
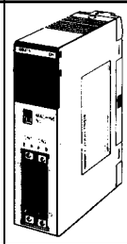
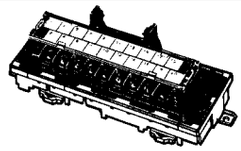
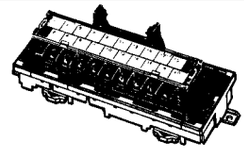
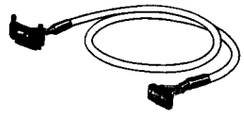
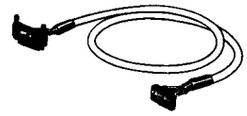
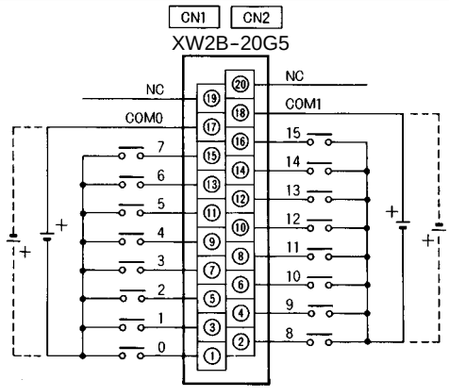
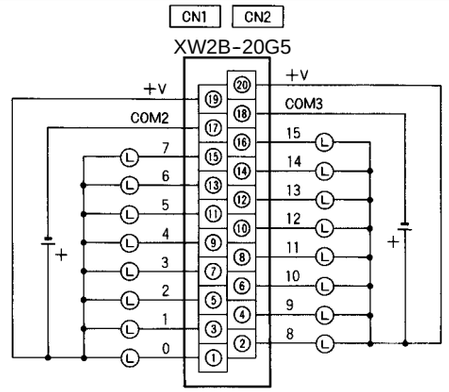
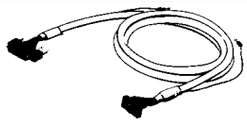
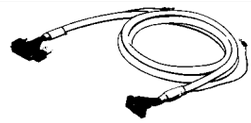
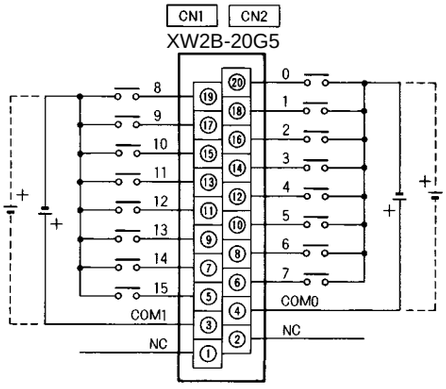
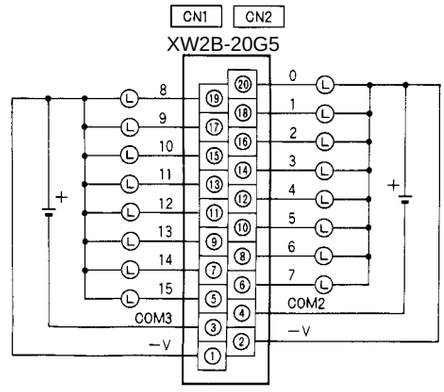
Part number	Cable length L
XW2Z-100F	1 m (3.28 ft)
XW2Z-150F	1.5 m (4.92 ft)
XW2Z-200F	2 m (6.56 ft)
XW2Z-300F	3 m (9.84 ft)
XW2Z-500F	5 m (16.40 ft)

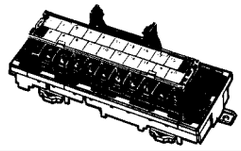
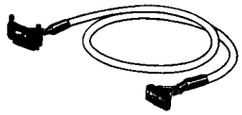
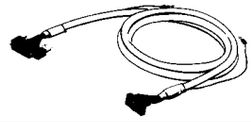
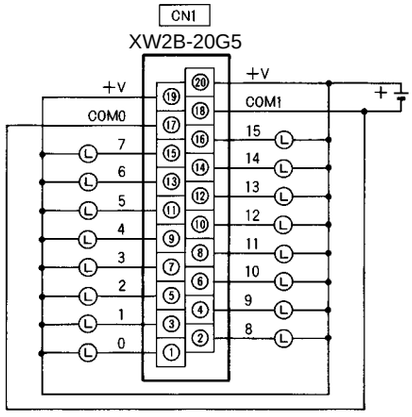
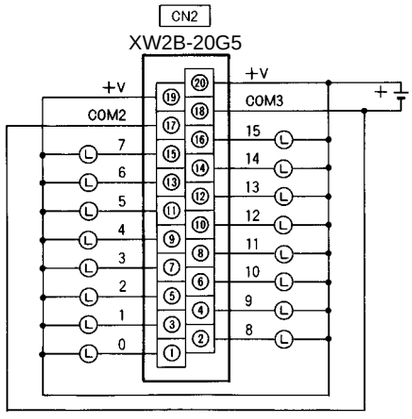
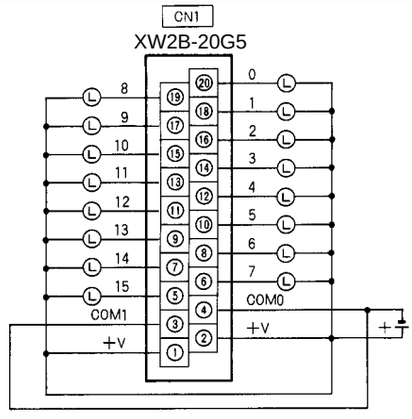
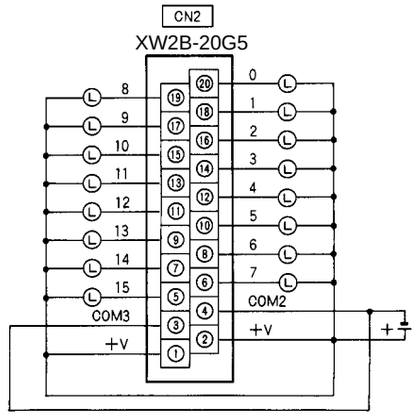
Combinations of Omron PLC I/O Modules and Screw Terminal Blocks

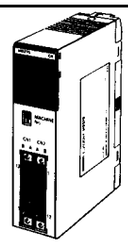
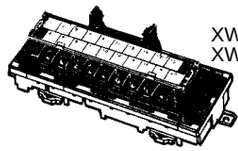
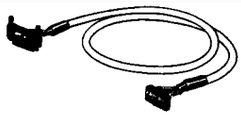
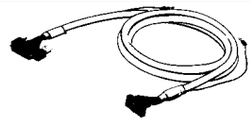
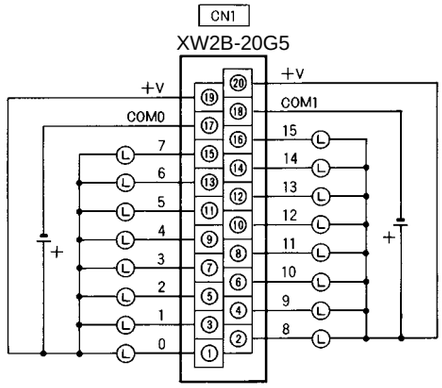
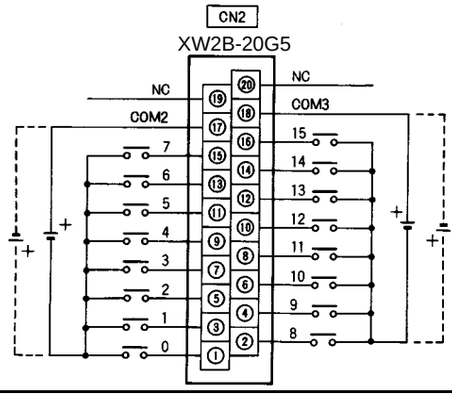
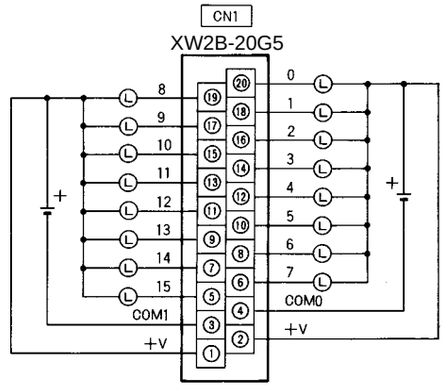
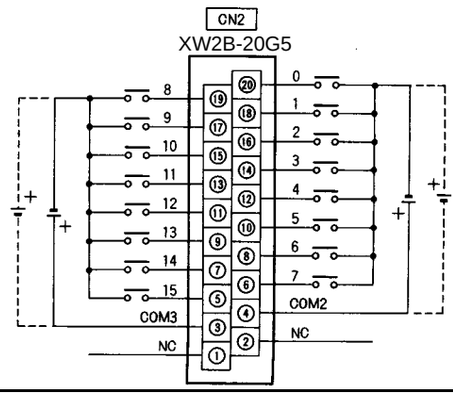
PLC I/O module	Terminal block	Dedicated cable
Use any I/O module with a terminal block from Omron or another manufacturer, or an I/O board for a computer.	XW2B-20G5 XW2B-20G4	XW2Z-□□□F

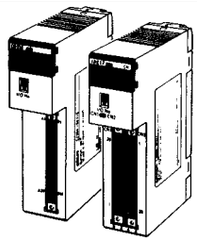
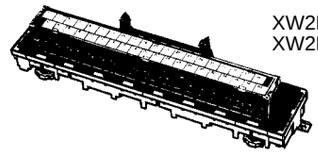
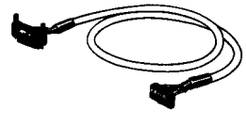
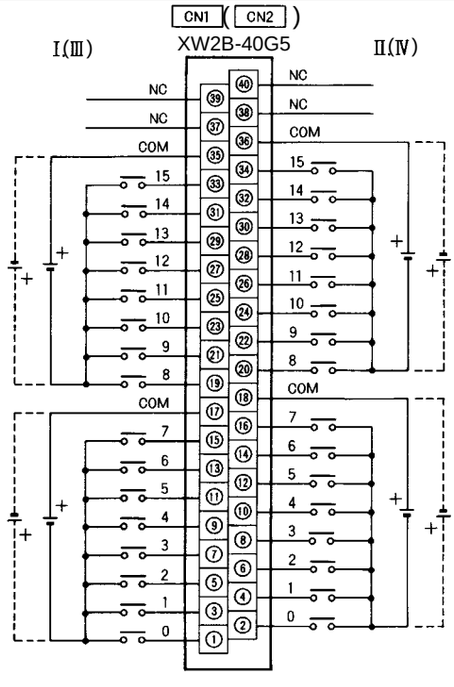
Installation

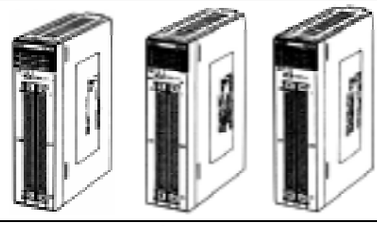
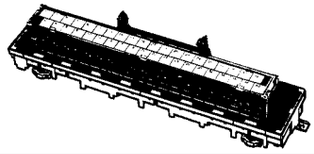
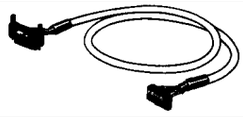
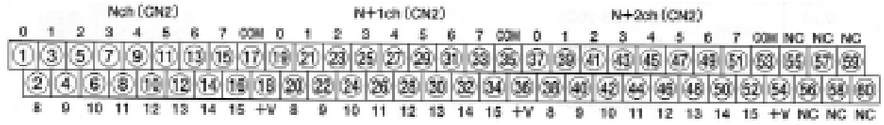
■ CONNECTIONS BETWEEN OMRON'S I/O MODULES AND SCREW TERMINAL BLOCKS

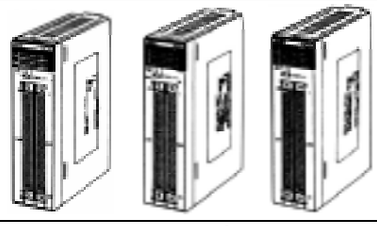
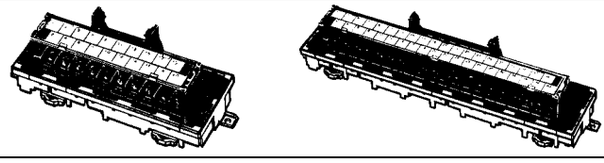
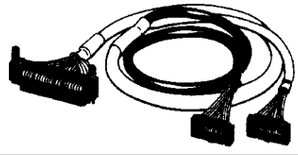
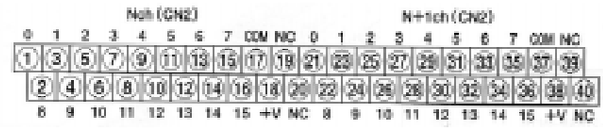
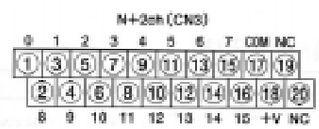
Item	Input (ID)	Output (OD)
PLC I/O modules	 C200H-ID215 C200H-ID501 C500-ID501CN C500-ID218CN 32-point input modules use two blocks and two cables.	 C200H-OD215 C200H-OD501 C500-OD501CN 32-point output modules use two blocks and two cables.
Terminal blocks	 XW2B-20G5 XW2B-20G4	 XW2B-20G5 XW2B-20G4
Cable	 XW2Z-□□□A	 XW2Z-□□□A
Connection diagram		
Cable	 G79-□C	 G79-□C
Connection diagram		

Item	Output (OD)	
PLC I/O module	 C500-OD415CN 32-point output module uses two blocks and two cables.	
Terminal block	 XW2B-20G5 XW2B-20G4	
Cable	 XW2Z-□□□A	 G79-□C
Connection diagram	 	 

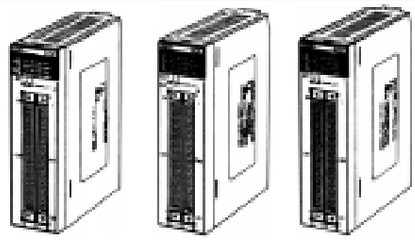
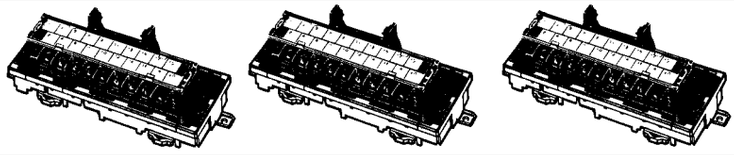
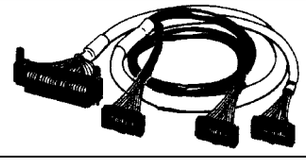
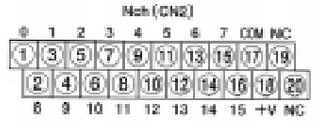
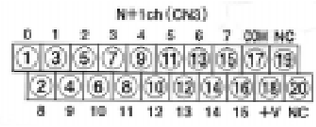
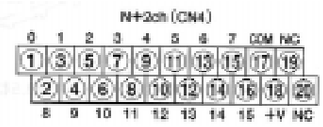
Item	Mixed I/O (MD)	
PLC I/O modules	 C200H-MD115 C200H-MD215 C200H-MD501 C500-MD211CN 16-point input/16-point output mixed I/O modules use two blocks and two cables.	
Terminal blocks	 XW2B-20G5 XW2B-20G4	
Cable	 XW2Z-□□□A	 G79-□C
Connection diagram	 	 

Item	Group 2 High-density Input/Output
PLC I/O module	 CQM1-ID213 32-point Use one terminal block and one cable. C200H-ID216 32-point Use one terminal block and one cable. C200H-ID111 64-point Use two terminal blocks and two cables. C200H-ID217 64-point Use two terminal blocks and two cables. C500-ID114 64-point Use two terminal blocks and two cables. 3G2A5-ID219 64-point Use two terminal blocks and two cables. CQM1-OD213 32-point Use one terminal block and one cable. C200H-OD218 32-point Use one terminal block and one cable. C200H-OD219 64-point Use two terminal blocks and two cables.
Terminal block	 XW2B-40G5 XW2B-40G4
Cable	 XW2Z-□□□B
Connection diagram	

Item	High-density I/O 1:1 Connection
PLC I/O module	 CS1W-ID29□ CS1W-OD29□ CS1W-MD29□ Use two terminal blocks and two cables.
Terminal block	 One XW2B-60G5 or one XW2B-60G4 per cable
Cable	 XW2Z-□□□H-1
Connection	XW2B-60G□ 

Item	High-density I/O 1:2 Connection
PLC I/O module	 CS1W-ID29□ CS1W-OD29□ CS1W-MD29□ Use two 40-point and two 20-point terminal blocks and two cables.
Terminal block	 XW2B-40G5 + XW2B-20G5 blocks or XW2B-40G4 + XW2B-20G4 blocks per cable
Cable	 XW2Z-□□□H-2
Connection	XW2B-40G□  XW2B-20G□ 

Note: For detailed information about connector pin-outs, refer to CS1 Operation Manual (W339), Appendix A.

Item	High-density I/O 1:3 Connection
PLC I/O module	 CS1W-ID29□ CS1W-OD29□ CS1W-MD29□ Use six 20-point terminal blocks of the same kind and two cables.
Terminal block	 Three XW2B-20G5 blocks or three XW2B-20G4 blocks per cable
Cable	 XW2Z-□□□H-3
Connection	XW2B-20G□  XW2B-20G□  XW2B-20G□ 

Note: For detailed information about connector pin-outs, refer to CS1 Operation Manual (W339), Appendix A.

NOTE: DIMENSIONS SHOWN ARE IN MILLIMETERS. To convert millimeters to inches divide by 25.4.

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