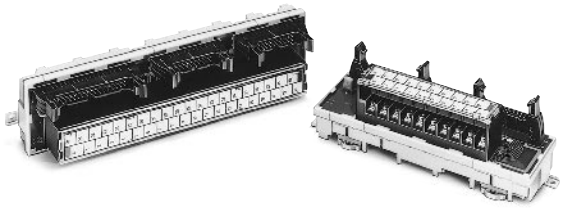
OMRON

Servo Relay Units

XW2B

Connectors and terminal block in a single unit reduces wiring between Servo Drivers and Position Control Units.



- Simplifies control signal wiring between Servo Drivers and Position Control Units.
- With no soldering connections, a screwdriver is all you need.
- Special cables available for between Units.
- Only a 24-VDC power supply is required for control signals.
- Space-saving terminals blocks with M3 screws.
- Mount to DIN Track or via screws.

■ Ordering Information

Servo Relay Units

Name	Applicable Units	Model
One-axis Servo Relay Unit	CJ1W-NC1□3 CS1W-NC1□3 C200HW-NC113 C200H-NC112 3F88M-DRT141	XW2B-20J6-1B
Two-axis Servo Relay Unit	CJ1W-NC2□3/NC4□3 CS1W-NC2□3/NC4□3 C200HW-NC213/NC413 C200H-NC211	XW2B-40J6-2B
CQM1 Relay Unit (for one-/two-axis Servos)	CQM1-CPU43-V1 CQM1H-PLB21 CS1WS-HCP22	XW2B-20J6-3B
Two-axis Servo Relay Unit (with communications support)	CS1W-NC2□3/NC4□3 CJ1W-NC2□3/NC4□3	XW2B-40J6-4A
Servo Relay Unit for the CJ1M-CPU Unit (for 1 axis)	CJ1M-CPU22 CJ1M-CPU23	XW2B-20J6-8A
Servo Relay Unit for the CJ1M-CPU Unit (for 2 axes)	CJ1M-CPU22 CJ1M-CPU23	XW2B-40J6-9A

Servo Driver Connecting Cables

Name	Applicable Servo Driver		Model
30- to 750-W U-series Connecting Cables	R88D-UP	1 m	XW2Z-100J-B1
		2 m	XW2Z-200J-B1
M-series Connecting Cables	R88D-MT	1 m	XW2Z-100J-B2
		2 m	XW2Z-200J-B2
H-series Connecting Cables	R88D-H	1 m	XW2Z-100J-B3
		2 m	XW2Z-200J-B3
1-kW min. W- and U-series Connecting Cables	R88D-WT R88D-UT	1 m	XW2Z-100J-B4
		2 m	XW2Z-200J-B4
SMARTSTEP/UE-series Connecting Cables	R7D-AP R88D-UEP	1 m	XW2Z-100J-B5
		2 m	XW2Z-200J-B5
SMARTSTEP Cable with Communications Support	R7D-AP	1 m	XW2Z-100J-B7
		2 m	XW2Z-200J-B7

Connecting Cables for Serial Communications Units and Boards

Name	Applicable Serial Communications Units and Boards		Model
SMARTSTEP Connecting Cables	CJ1W-SCU41 CS1W-SCB41	1 m	XW2Z-100J-C1
		2 m	XW2Z-200J-C1

Position Control Unit Connecting Cables

Name	Applicable Units		Model
One-axis W-, U-, H-, and M-series Connecting Cables	C200H-NC112	0.5 m	XW2Z-050J-A1
		1 m	XW2Z-100J-A1
Two-axis W-, U-, H-, and M-series Connecting Cables	C200H-NC211	0.5 m	XW2Z-050J-A2
		1 m	XW2Z-100J-A2
One-axis W-, U-, H-, M-, SMARTSTEP, and UE-series Connecting Cables	CQM1-CPU43-V1 CQM1H-PLB21	0.5 m	XW2Z-050J-A3
		1 m	XW2Z-100J-A3
One-axis SMARTSTEP and UE-series Connecting Cables	C200H-NC112	0.5 m	XW2Z-050J-A4
		1 m	XW2Z-100J-A4
Two-axis SMARTSTEP and UE-series Connecting Cables	C200H-NC211	0.5 m	XW2Z-050J-A5
		1 m	XW2Z-100J-A5
One-axis W-, U-, H-, and M-series Connecting Cables	CS1W-NC113 C200HW-NC113	0.5 m	XW2Z-050J-A6
		1 m	XW2Z-100J-A6
Two-axis W-, U-, H-, and M-series Connecting Cables	CS1W-NC213/NC413 C200HW-NC213/NC413	0.5 m	XW2Z-050J-A7
		1 m	XW2Z-100J-A7
One-axis SMARTSTEP and UE-series Connecting Cables	CS1W-NC113 C200HW-NC113	0.5 m	XW2Z-050J-A8
		1 m	XW2Z-100J-A8
Two-axis SMARTSTEP and UE-series Connecting Cables	CS1W-NC213/NC413 C200HW-NC213/NC413	0.5 m	XW2Z-050J-A9
		1 m	XW2Z-100J-A9
One-axis W-, U-, H-, and M-series Connecting Cables	CS1W-NC133	0.5 m	XW2Z-050J-A10
		1 m	XW2Z-100J-A10
Two-axis W-, U-, H-, and M-series Connecting Cables	CS1W-NC233/NC433	0.5 m	XW2Z-050J-A11
		1 m	XW2Z-100J-A11
One-axis SMARTSTEP and UE-series Connecting Cables	CS1W-NC133	0.5 m	XW2Z-050J-A12
		1 m	XW2Z-100J-A12
Two-axis SMARTSTEP and UE-series Connecting Cables	CS1W-NC233/NC433	0.5 m	XW2Z-050J-A13
		1 m	XW2Z-100J-A13
One-axis W-, U-, H-, and M-series Connecting Cables	CJ1W-NC113	0.5 m	XW2Z-050J-A14
		1 m	XW2Z-100J-A14
Two-axis W-, U-, H-, and M-series Connecting Cables	CJ1W-NC213/NC413	0.5 m	XW2Z-050J-A15
		1 m	XW2Z-100J-A15
One-axis SMARTSTEP and UE-series Connecting Cables	CJ1W-NC113	0.5 m	XW2Z-050J-A16
		1 m	XW2Z-100J-A16
Two-axis SMARTSTEP and UE-series Connecting Cables	CJ1W-NC213/NC413	0.5 m	XW2Z-050J-A17
		1 m	XW2Z-100J-A17
One-axis W-, U-, H-, and M-series Connecting Cables	CJ1W-NC133	0.5 m	XW2Z-050J-A18
		1 m	XW2Z-100J-A18
Two-axis W-, U-, H-, and M-series Connecting Cables	CJ1W-NC233/NC433	0.5 m	XW2Z-050J-A19
		1 m	XW2Z-100J-A19
One-axis SMARTSTEP and UE-series Connecting Cables	CJ1W-NC133	0.5 m	XW2Z-050J-A20
		1 m	XW2Z-100J-A20
Two-axis SMARTSTEP and UE-series Connecting Cables	CJ1W-NC233/NC433	0.5 m	XW2Z-050J-A21
		1 m	XW2Z-100J-A21
One-axis W-, U-, H-, M-, SMARTSTEP, and UE-series Connecting Cables	CS1W-HCP22 (for 1 axis)	0.5 m	XW2Z-050J-A22
		1 m	XW2Z-100J-A22
	CS1W-HCP22 (for 2 axes)	0.5 m	XW2Z-050J-A23
		1 m	XW2Z-100J-A23
One-axis W-, U-, H-, and M-series Connecting Cables	3F88M-DRT141	0.5 m	XW2Z-050J-A24
		1 m	XW2Z-100J-A24
One-axis SMARTSTEP and UE-series Connecting Cables		0.5 m	XW2Z-050J-A25
		1 m	XW2Z-100J-A25
Two-axis SMARTSTEP Connecting Cables	CJ1M-CPU22 CJ1M-CPU23	1 m	XW2Z-100J-A26
Two-axis SMARTSTEP Connecting Cables		1 m	XW2Z-100J-A27

■ Servo Relay Unit Specifications

Ratings and Characteristics

Item	XW2B-□□J6-□
Rated current	1 A (temperature rise plus 30°C max.)
Rated voltage	24 VDC
Insulation resistance	5 MΩ min. (at 500 VDC)
Dielectric strength	500 VAC for 1 min (leakage current: 1 mA max.)
Degree of protection	IP00 IEC standard
Electrical protection class	Class 0
Operating temperature	0 to 55°C

Materials and Finish

Item	Part name	Materials and finish
Units	Main Unit/Expansion Unit	PBT resin (UL94V-0)/gray
	DIN Track lock	POM resin (UL94HB)/yellow
Flat Cable Connectors	Housing	PBT resin (UL94V-0)/black
	Contacts	Brass/gold plated
Terminal Block	Main Unit	PBT resin (UL94V-0)/black
	Connecting screw	Steel/nickel plated
	Cover	PC resin (UL94V-0)/transparent
PCB	---	FCL-GE4 Glass-epoxy Board

■ Position Control Unit and Servo Driver Connecting Cable Specifications

Ratings and Characteristics

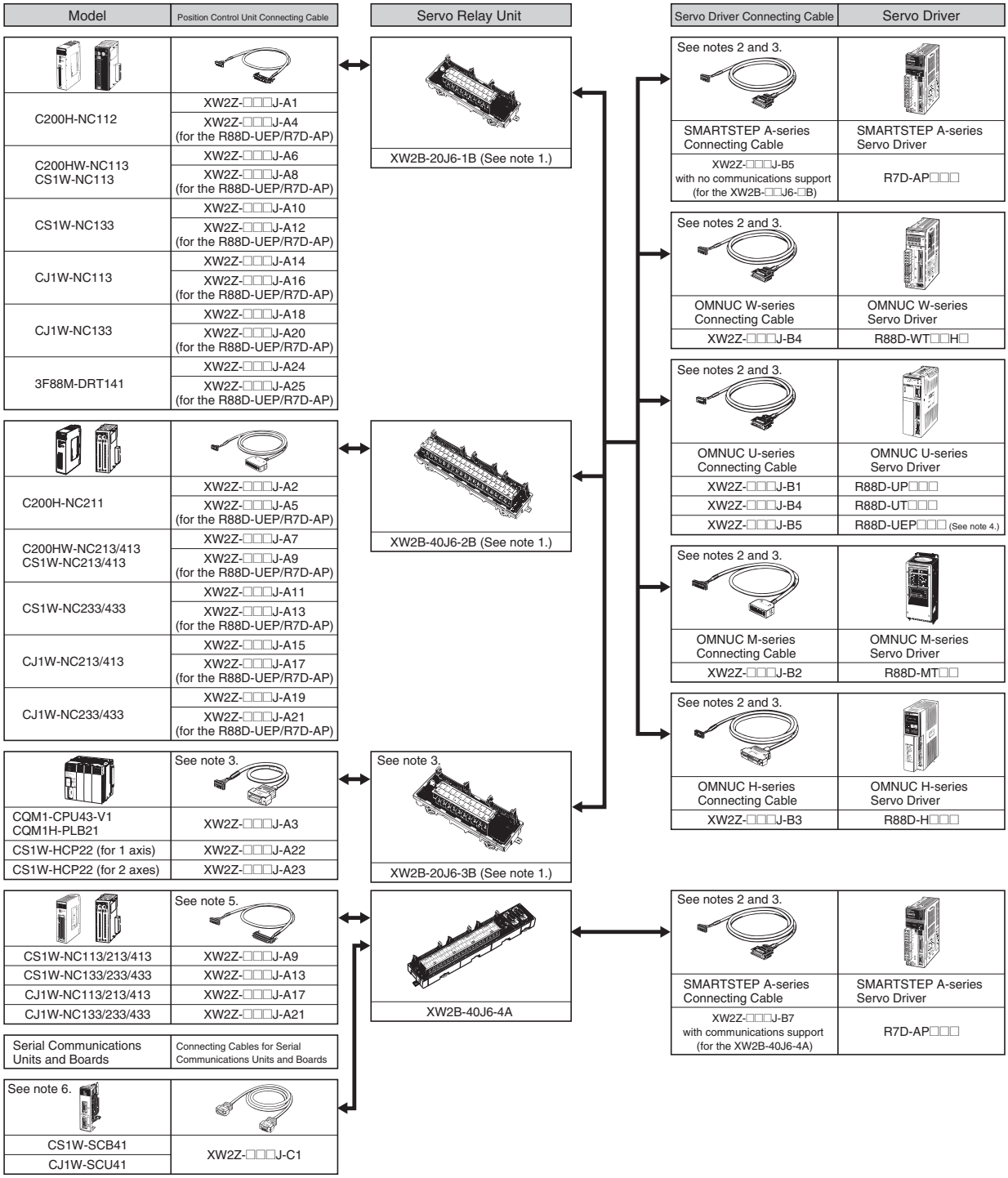
Item	Specifications
Rated current	1 A (temperature rise plus 30°C max.)
Rated voltage	24 VDC
Contact resistance	20 mΩ max. (at 20 mV, 100 mA max.) (See note 1.)
Insulation resistance	5 MΩ min. (at 500 VDC)
Dielectric strength	500 VAC for 1 min (leakage current: 1 mA max.) (See note 2.)
Degree of protection	IP00 IEC standard
Electrical protection class	Class 0
Operating temperature	0 to 55°C

Note: **1.** Contact resistance of the Connector.
2. Dielectric strength of the Connector.

Materials and Finish

Item	Part name			Materials and Finish
Connectors	XG4M-1630 XG4M-2030 XG4M-3430	Housing		Fiber-glass reinforced PBT resin (UL94V-0)/black
		Cover		
		Contacts	Mating end	Phosphor bronze/nickel base, 0.15-μm gold plating
			Press-fit end	Phosphor bronze/nickel base, 2.0-μm tin plating
	XG4T-1604/2004/3404		Strain Relief	Fiber-glass reinforced PBT resin (UL94V-0)/black
	XM2A-1501 XM2D-1501	Housing		Polyamide resin (UL94V-0)/milky white
		Contact terminals	Mating end	Brass/nickel base, 0.2-μm gold plating
			Press-fit end	
		Shell		Steel/nickel plated
	XM2S-1511/3711	Housing		ABS resin/nickel plated
	FCN-367J040-AU/F	Housing		PBT resin (UL94V-0)/black
		Contacts	Mating end	Phosphor bronze/gold plated
			Press-fit end	Phosphor bronze/tin plated
		Connecting screw		Steel/nickel plated
	MR-34LF MR-50LF	Housing		Fiber-glass reinforced PBT resin (UL94V-0)/black
		Contacts	Mating end	Brass/nickel base, silver plated
		Cover		ABS resin (UL94-HB)
	10136-3000VE 10150-3000VE	Housing		Fiber-glass reinforced PBT resin (UL94V-0)/black
		Contacts		Copper alloy/nickel base, 0.5-μm gold plating
	10136-52A0-008 10130-52A0-008	Housing		Fiber-glass reinforced PBT resin (UL94V-0)/black
Cable	UL2464 Interface Cable			AWG28 or the equivalent

■ Servo Relay Unit, Servo Driver and Position Control Unit Combinations



Note: **1.** Same functions as conventional models, such as the XW2B-20J6-2, XW2B-40J6-2, and XW2B-20J6-3, and connects to the R88D-UEP□□□.

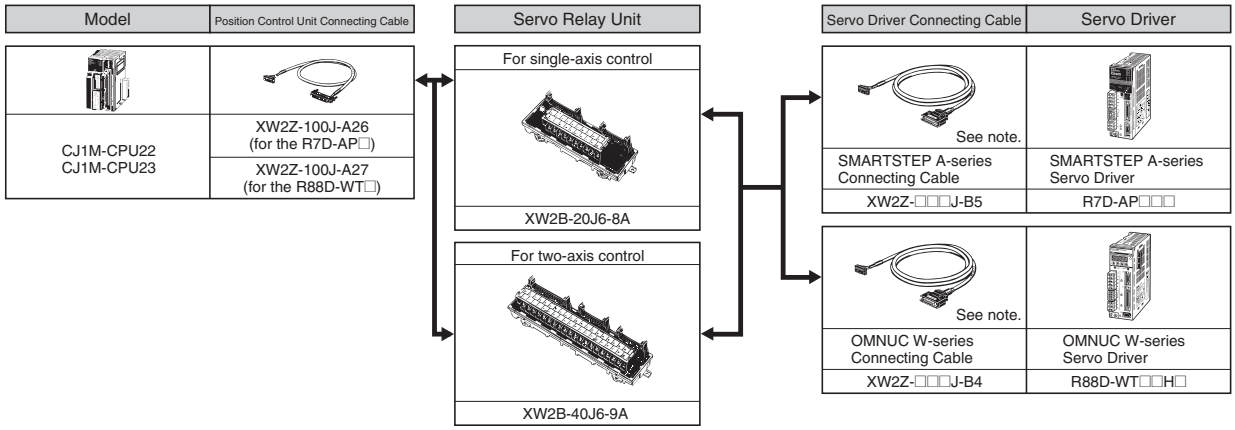
2. Two Servo Driver Connecting Cables are required per Relay Unit when using the C200H-NC211, C200HW-NC213/413, or CS1W-NC213/233/413/433.

3. Two Relay Units, two Position Control Connecting Cables, and two Servo Driver Connecting Cables are required when using the CQM1-CPU43-V1 for 2-axis control.

4. Use the XW2Z-□□□J-A4 Connecting Cable for the C200H-NC112, the XW2Z-□□□J-A8 Connecting Cable for the C200HW-NC113 and CS1W-NC113, the XW2Z-□□□J-A5 Connecting Cable for the C200H-NC211, and the XW2Z-□□□J-A9 Connecting Cable for the C200HW-NC213/413 and CS1W-NC213.

5. Do not connect a signal lines to the Y-axis terminals on the XW2B-40J6-4A when connected to a Position Control Unit used for one-axis control.

6. Use this cable between XW2B-406J-4A communications connectors to control two or more axes.



Note: For 2-axis control, two Servo Driver Connecting Cables are required for each Relay Unit.