CJ-series Mixed I/O Units

CSM_CJ1W-MD_DS_E_9_8

A Wide Range of Basic Mixed I/O Units for Different Applications and Wiring Methods

• One Mixed I/O Unit has connectors for both inputs and outputs. Use Mixed I/O Units to easily build space-saving systems.



CJ1W-MD231

CJ1W-MD261



CJ1W-MD563

Features

- Select the best interface for each application: Fujitsu connectors and MIL connectors.
- Select sinking outputs or sourcing outputs. The CJ1W-MD232 has load short-circuit protection.
- The ON and OFF response times can be set to between 0 and 32 ms in the Setup in the CPU Unit.
- Mixed I/O Units with 5-V TTL inputs are also available. *
- A wide variety of Connector-Terminal Block Conversion Units are available to allow you to easily wire external I/O devices.
- * Applies to the CJ1W-MD563.

Ordering Information

International Standards

- The standards are abbreviated as follows: U: UL, U1: UL (Class I Division 2 Products for Hazardous Locations), C: CSA, UC: cULus,
- UC1: cULus (Class I Division 2 Products for Hazardous Locations), CU: cUL, N: NK, L: Lloyd, and CE: EC Directives.
- Contact your OMRON representative for further details and applicable conditions for these standards.

Mixed I/O Units

	Dreduct			Specificatio	ons			consu	rent mption A)		
Unit type	Product name	Output type	I/O points	Input voltage, Input current Maximum switching capacity	Commons	External connection	No. of words allocated	5 V	24 V	Model	Standards
DC Inpu Transis Output Units	DC Input/	Sinking	16 inputs 16 outputs	24 VDC, 7 mA 250 VAC/24 VDC, 0.5 A	16 points, 1 common 16 points, 1 common	Fujitsu connector	2 words	0.13	_	CJ1W-MD231	UC1, N, CE
	Output	Sinking	16 inputs	24 VDC, 7 mA	16 points, 1 common 16 points,	MIL connector	2 words	0.13 –	_	CJ1W-MD233	
			16 outputs 32 inputs	12 to 24 VDC, 0.5 A 24 VDC, 4.1 mA	1 common 16 points, 1 common	Fujitsu	4 words				UC1, N,
		Sinking	32 outputs	12 to 24 VDC, 0.3 A	16 points, 1 common	connector	4 words	0.14	-	CJ1W-MD261	CE
CJ1 Basic I/O Units		Sinking	32 inputs	24 VDC, 4.1 mA	16 points, 1 common 16 points,	MIL connector	4 words	0.14	_	CJ1W-MD263	
			32 outputs	12 to 24 VDC, 0.3 A	1 common 16 points,						
		Sourcing	16 inputs 16 outputs	24 VDC, 7 mA 24 VDC, 0.5 A Short-circuit protection	1 common 16 points, 1 common	MIL connector	2 words	0.13	-	CJ1W-MD232	UC1, N, L, CE
	TTL I/O Units		32 inputs	5 VDC, 35 mA	16 points, 1 common	MIL	4 words	0.10		CJ1W-MD563	UC1, N,
			32 outputs	5 VDC, 35 mA	16 points, 1 common	connector	4 words	0.19	_		CE

Accessories

Connectors are not included for models with connectors. Either use one of the applicable connector listed below or use an applicable Connector-Terminal Block Conversion Unit or I/O Relay Terminal. For details on wiring methods, refer to *External Interface*.

Applicable Connectors

Fujitsu Connectors for 32-input, 32-output, 64-input, 64-output, 32-input/32-output, and 16-input/16-output Units

Name	Connection	Rem	arks	Applicable Units	Model	Standards
	Soldered			Fujitsu Connectors: CJ1W-ID231(32 inputs): 1 per Unit	C500-CE404	
40-pin Connectors	Crimped	FCN-363J040 FCN-363J-AU FCN-360C040-J2	Housing Contactor Connector Cover	CJ1W-ID261 (64 inputs): 2 per Unit CJ1W-OD231 (32 outputs): 1 per Unit CJ1W-OD261 (64 outputs): 2 per Unit	C500-CE405	_
	Pressure welded	FCN-367J040-AU/F		CJ1W-MD261 (32 inputs, 32 outputs): 2 per Unit	C500-CE403	
	Soldered	FCN-361J024-AU Connector FCN-360C024-J2 Connector Cover FCN-363J024 Socket FCN-363J-AU Contactor FCN-360C024-J2 Contactor			C500-CE241	
24-pin Connectors	Crimped			Fujitsu Connectors: CJ1W-MD231 (16 inputs, 16 outputs): 2 per Unit	C500-CE242	
	Pressure welded	FCN-367J024-AU/F			C500-CE243	

MIL Connectors for 32-input, 32-output, 64-input, 64-output, 32-input/32-output, and 16-input/16-output Units

Name	Connection	Remarks	Applicable Units	Model	Standards
40-pin	Pressure welded	FRC5-AO40-3TOS	MIL Connectors: CJ1W-ID232 (32 inputs): 1 per Unit CJ1W-OD232/233 (32 outputs):1 per Unit	XG4M-4030-T	
Connectors	Crimped	_	CJ1W-ID262 (64 inputs): 2 per Unit CJ1W-OD262/263 (64 outputs): 2 per Unit CJ1W-MD263/563 (32 inputs, 32 outputs): 2 per Unit	XG5N-401*	-
20-pin	Pressure welded	FRC5-AO20-3TOS	MIL Connectors:	XG4M-2030-T	
Connectors	Crimped	-	CJ1W-MD232/233 (16 inputs, 16 outputs): 2 per Unit	XG5N-201*	-

* Crimp Contacts are also required. Refer to page 20 for details.

CJ1W-MD

		Number	Wiring	Terminal		Size		Mou	nting	Common	Bleeder				
Туре	Series	of poles	method	type	Depth (mm)	Height (mm)	Width (mm)	DIN Track	Screws			Indicators	I/O Units	Model *	Standard
		20			50	48.05	81.7						CJ1W-MD231 CJ1W-MD232 CJ1W-MD233	XW2R-J20GD-T	
			Phillips screw										CJ1W-MD261	XW2R-J34GD-C1	
				МЗ									00100-1010201	XW2R-J34GD-C3	
		34	Contraction of	-	50	48.05	130.7						CJ1W-MD263	XW2R-J34GD-C2	
		04			00	40.00	100.7							XW2R-J34GD-C4	
													CJ1W-MD563	XW2R-J34GD-C2	
													00100-1010000	XW2R-J34GD-C4]
	20	Slotted screw		50	48.05	81.7						CJ1W-MD231 CJ1W-MD232 CJ1W-MD233	XW2R-E20GD-T		
			(rice up)										CJ1W-MD261	XW2R-E34GD-C1	
eneral- urpose	XW2R		(Euro	(European type)				Yes	_	No	No	No		XW2R-E34GD-C3	_
evices,		34				44.81	98.5						CJ1W-MD263	XW2R-E34GD-C2	
LC		54											00100-1010200	XW2R-E34GD-C4	
													CJ1W-MD563	XW2R-E34GD-C2	
													C0100-101D000	XW2R-E34GD-C4	
		20	Push-in		50	48.05	81.7						CJ1W-MD231 CJ1W-MD232 CJ1W-MD233	XW2R-P20GD-T	
			spring					1					CJ1W-MD261	XW2R-P34GD-C1	1
			4	Clamp										XW2R-P34GD-C3	1
		34	ALL DOWNERS		50	44.81	09.5						CJ1W-MD263	XW2R-P34GD-C2	
		54			50	44.01	50.0							XW2R-P34GD-C4	1
													CJ1W-MD563	XW2R-P34GD-C2	1
														XW2R-P34GD-C4	1

Applicable Connector-Terminal Block Conversion Units

Note: For the combination of Input Units with Connector-Terminal Block Conversion Units, refer to 2. Connecting Connector-Terminal Block Conversion Units.

* Representative models only. For details, refer to the XW2R series catalog (Cat. No. G077).

Appearance	Connectors	Cable lenght [m]	Model
		0.5	XW2Z-050A
		1	XW2Z-100A
2Z-□□□A		1.5	XW2Z-150A
		2	XW2Z-200A
	One 24-pin Fujitsu Connector to	3	XW2Z-300A
	One 20-pin MIL Connector	5	XW2Z-500A
		7	XW2Z-700A
		10	XW2Z-010A
		15	XW2Z-15MA
		20	XW2Z-20MA
/2Z-□□□X		0.5	XW2Z-C50X
		1	XW2Z-100X
	One 20-pin MIL Connector to	2	XW2Z-200X
	One 20-pin MIL Connector	3	XW2Z-300X
and the second se		5	XW2Z-500X
•		10	XW2Z-010X
2ZPF		0.5	XW2Z-050PF
		1	XW2Z-100PF
	One 40-pin Fujitsu Connector to	1.5	XW2Z-150PF
	One 40-pin MIL Connector	2	XW2Z-200PF
		3	XW2Z-300PF
		5	XW2Z-500PF
/2Z-□□PM		0.5	XW2Z-050PM
		1	XW2Z-100PM
	One 40-pin MIL Connector to	1.5	XW2Z-150PM
	One 40-pin MIL Connector	2	XW2Z-200PM
		3	XW2Z-300PM
		5	XW2Z-500PM

Connecting Cables for Connector-Terminal Block Conversion Units

Applicable	1/0	Relav	Terminals	

				S	pecifications	5		Size (hor	izontal m	ounting)	Mou	nting						
Туре	Series	Classi	fication	Polarity	Number of points	Rated ON current at contacts	Rated voltage	Horizontal (mm)	Vertical (mm)	Height (mm)	DIN Track	Screws	Model	Standards				
Push-In Plus	G70V	Inputs	DC inputs	NPN PNP NPN PNP	16 (SPSTNO × 16)	50 mA	24 VDC	143	90	56	Yes	Yes	G70V-SID16P *4 G70V-SID16P-1 *4 G70V-SID16P-C16 *5 G70V-SID16P-1-C16 *5	UC, CE				
terminal block		Outputs	Relay outputs	NPN PNP NPN PNP	16 (SPDT × 16)	6 A/point, 10 A/ common	- 24 VDC	143	90	50	res	res	G70V-SOC16P *4 G70V-SOC16P-1 *4 G70V-SOC16P-C4 *6 G70V-SOC16P-1-C4 *6	certified)				
	G7TC	Inputs	AC inputs DC inputs	NPN	16 (SPSTNO × 16)	1A	100/(110) VAC 200/(220) VAC 12 VDC 24 VDC 100/110 VDC	182		68 Yes	68 Yes	68 Yes	3 Ves	68 Yes			G7TC-IA16 AC100/110 G7TC-IA16 AC200/220 G7TC-ID16 DC12 G7TC-ID16 DC24 G7TC-ID16 DC100/110	-
Standard	A DOMESTIC	Outputs	Relay outputs	NPN	8 (SPSTNO × 8) 16 (SPSTNO × 16)	5A	12 VDC 24 VDC 12 VDC 24 VDC	102	85				68 Yes		68 Yes	68 Yes	68 Yes	68 Yes
	G70A *1			PNP	16 (SPSTNO × 16)		12 VDC 24 VDC 110 VDC	- 102					G7TC-OC16-1 DC12 G7TC-OC16-1 DC24	-				
High- capacity socket	(Socket only)	Inputs Outputs	Relay inputs Relay outputs	NPN/ PNP NPN PNP	16 (SPDT × 16 possible with G2R Relays)	100 mA 10 A (Ter- minal block al- lowable	max., 240 VAC max. *2 24 VDC	234	75	64	Yes	No	G70A-ZOC16-5 G70A-ZOC16-3 G70A-ZOC16-4	U, C, CE (VDE certified)				
	Vertical type G70D-V		Relay outputs MOSFET relay outputs	NPN	16 (SPSTNO × 16)	5 A or 3 A *3 0.3 A	-	135	46	81	Yes	Yes	G70D-VSOC16 G70D-VFOM16	U, C, CE (VDE certified				
Space- saving	Flat type G70D	Outputs	Relay	NPN	8 (SPSTNO × 8) 16	5 A	24 VDC	68	93	44	-		G70D-SOC08 G70D-SOC16	-				
	CONCERNE.		$\begin{array}{c c} \begin{array}{c} 10 \\ \text{outputs} \end{array} & \begin{array}{c} 10 \\ \text{(SPSTNO \times 16)} \end{array} & \begin{array}{c} 3 \text{ A} \end{array} \\ \\ \hline \end{array} \\ \begin{array}{c} PNP \end{array} & \begin{array}{c} 16 \\ \text{(SPSTNO \times 16)} \end{array} & \begin{array}{c} 3 \text{ A} \end{array} \end{array}$			156	51	39	Yes	Yes	G70D-SOC16-1							
			MOSFET relay outputs	NPN PNP	16 (SPSTNO × 16)	0.3 A			51				G70D-FOM16 G70D-FOM16-1	-				
High- capacity, space- saving	G70R	Outputs	Relay outputs	NPN	8 (SPSTNO × 8)	10 A	24 VDC	136	93	55	Yes	Yes	G70R-SOC08 *7	-				

*1. G70A is a I/O terminal socket product. Relay is not provided with the socket. Be sure to order a relay, timer separately.

*2. Each relay to be mounted must incorporate a coil that has proper specifications within the maximum rated voltage range.
*3. Eight or fewer points ON: 5 A, Nine or more points ON: 3 A.

*4. Internal common at terminal block: No internal connections

*5. Internal common at terminal block: Internal IO common 16 points internally connected

*6. Internal common at terminal block: Every 4 points internally connected at terminal block middle row.

 *7. Product no longer available to order.
 Note: 1. For the combination of Input Units with I/O Relay Terminal and Connecting Cables, refer to 3. Connecting I/O Relay Terminals. 2. Please refer to each Datasheet about details.

3. When the G7TC is used with an AC rated voltage, three rated currents can be used. If a coil voltage of 110 or 220 VAC is used, 50 Hz cannot be used.

Cables for I/O Relay Terminals

Туре	Name	I/O Classification	Appearance	Cable leng	gth L (mm)	Models	
			A side B side	1,0	000	XW2Z-R100C	
	Cables with Connectors		Device end I/O Relay Terminal	1,5	500	XW2Z-R150C	
ujitsu connectors (24 pins)	(1:1)	16 I/O points		2,0	000	XW2Z-R200C	
	XW2Z-R□C			3,000		XW2Z-R300C	
				5,000		XW2Z-R500C	
			A side B side	(A) 1,000	(B) 750	XW2Z-RI100C-75	
			A SIDE B SIDE Device end I/O Relay Terminal	(A) 1,500	(B) 1,250	XW2Z-RI150C-125	
		32 input points	(A) →	(A) 2,000	(B) 1,750	XW2Z-RI200C-175	
	Cables with Connectors			(A) 3,000	(B) 2,750	XW2Z-RI300C-275	
	(1:2)			(A) 5,000	(B) 4,750	XW2Z-RI500C-475	
ujitsu connectors (40 pins)				(A) 1,000	(B) 750	XW2Z-RO100C-75	
	XW2Z-RI□C-□ XW2Z-RO□C-□		(120)	(A) 1,500	(B) 1,250	XW2Z-RO150C-125	
		32 output points		(A) 2,000	(B) 1,750	XW2Z-RO200C-175	
		oz output pointo	(B)	(A) 3,000	(B) 2,750	XW2Z-RO300C-275	
			Straight length (without bends)	(A) 5,000	(B) 4,750	XW2Z-RO500C-475	
	Cables with Connectors		A side B side	2	50	XW2Z-RI25C	
	(1:1)		Device end I/O Relay Terminal	500		XW2Z-RI50C	
IIL connectors (20 pins)	XW2Z-RI⊡C	16 I/O points		250		XW2Z-RO25C	
	XW2Z-RO□C			50	00	XW2Z-RO50C	
				(A) 500	(B) 250	XW2Z-RO50-25-D1	
				(A) 750	(B) 500	XW2Z-R075-50-D1	
			A side B side	(A) 1,000	(B) 750	XW2Z-RO100-75-D1	
			Device end I/O Relay Terminal	(A) 1,500	(B) 1,250	XW2Z-RO150-125-D1	
			(A)	(A) 2,000	(B) 1,750	XW2Z-RO200-175-D1	
	Cables with Connectors			(A) 3,000	(B) 2,750	XW2Z-RO300-275-D1	
(10 min)	(1:2)	00.1/0		(A) 5,000	(B) 4,750	XW2Z-RO500-475-D1	
IL connectors (40 pins)	XW2Z-RO□-□-D1,	32 I/O points		(A) 500	(B) 250	XW2Z-RI50-25-D1	
	XW2Z-RID-D-D1,			(A) 750	(B) 500	XW2Z-RI75-50-D1	
				(A) 1,000	(B) 750	XW2Z-RI100-75-D1	
			(B)	(A) 1,500	(B) 1,250	XW2Z-RI150-125-D1	
			Straight length (without bends)	(A) 2,000	(B) 1,750	XW2Z-RI200-175-D1	
				(A) 3,000	(B) 2,750	XW2Z-RI300-275-D1	
				(A) 5,000	(B) 4,750	XW2Z-RI500-475-D1	

Note: Refer to the Datasheet for the XW2Z-R Cables for I/O Relay Terminals (Cat. No. G126).

Mountable Racks

	NJ system		CJ system	(CJ1, CJ2)	CP1H system	NSJ s	NSJ system	
Model	CPU Rack	Expansion Rack	CPU Rack	Expansion Backplane	CP1H PLC	NSJ Controller	Expansion Backplane	
CJ1W-MD231								
CJ1W-MD232		10 Units	10 Units	10 Units	Not supported	Not supported	10 Units (Per Expansion Backplane)	
CJ1W-MD233	10 11-1-1-							
CJ1W-MD261	10 Units	(Per Expansion Rack)		(Per Expansion Backplane)				
CJ1W-MD263		. identy						
CJ1W-MD563	1							

Specifications

CJ1W-MD231 DC Input/Transistor Output Unit (24 VDC, 16 Inputs/16 Outputs)

Name	16-point DC Input/16-point Transistor Output Unit with Fujitsu Connector	ors (Sinking Outputs)	
Model	CJ1W-MD231		
Output section (C	N1)	Input section (CN2)	1
Rated Voltage	12 to 24 VDC	Rated Input Voltage	24 VDC
Operating Load Voltage Range	10.2 to 26.4 VDC	Operating Input Voltage	20.4 to 26.4 VDC
Maximum Load Current	0.5 A/point, 2.0 A/Unit	Input Impedance	3.3 kΩ
Maximum Inrush Current	4.0 A/point, 10 ms max.	Input Current	7 mA typical (at 24 VDC)
Leakage Current	0.1 mA max.	ON Voltage/ON Current	14.4 VDC min./3 mA min.
Residual Voltage	1.5 V max.	OFF Voltage/OFF Current	5 VDC max./1 mA max.
ON Response Time	0.1 ms max.	ON Response Time	8.0 ms max. (Can be set to between 0 and 32 in the Setup.) *
OFF Response Time	0.8 ms max.		
No. of Circuits Fuse	16 (16 points/common, 1 circuit) None	OFF Response Time	8.0 ms max. (Can be set to between 0 and 32 in the Setup.) *
		No. of Circuits	16 (16 points/common, 1 circuit)
External Power Supply	10.2 to 26.4 VDC, 20 mA min.	Number of Simultaneously ON Points	75% (at 24 VDC)
Insulation Resistance	20 $M\Omega$ min. between the external terminals and the GR terminal (at 100) VDC)	
Dielectric Strength	1,000 VAC between the external terminals and the GR terminal for 1 mi	inute at a leakage curr	ent of 10 mA max.
Internal Current Consumption	5 VDC 130 mA max.		
Weight	90 g max.		
Accessories	None	1	
Circuit Configuration	Signal name CN1 (OUT) Signal name Allocated CIO word +V Jxx_Ch1_Out00 to Jxx_Ch1_Out07 Wd m Connect or row A Connect or row B Connect or row B	Ambien	CN2 (IN) Signal name Jxx_Ch1_In00 COM1 Jxx_Ch1_In07 COM1 Jxx_Ch1_In107 COM1 Jxx_Ch1_In15 COM1 Temperature Characteristic ints at 33°C 16 points at 45°C 12 points at 55°C 12 points at 55°C
	 The signal names of the terminals are the device variable names. 	. The signal names of	of the terminals are the device variable names.



* The ON response time will be 20 μs maximum and OFF response time will be 400 μs maximum even if the response times are set to 0 ms due to internal element delays.

CJ1W-MD233 DC Input/Transistor Output Unit (24 VDC, 16 Inputs/16 Outputs)

	16-point DC Input/16-point Transistor Output Unit with MIL Connectors	(Sinking Outputs)			
Model	CJ1W-MD233				
Output section (C	N1)	Input section (CN2)			
Rated Voltage	12 to 24 VDC	Rated Input Voltage	24 VDC		
Operating Load Voltage Range	10.2 to 26.4 VDC	Operating Input Voltage	20.4 to 26.4 VDC		
Maximum Load Current	0.5 A/point, 2.0 A/Unit	Input Impedance	3.3 kΩ		
Maximum Inrush Current	4.0 A/point, 10 ms max.	Input Current	7 mA typical (at 24 VDC)		
Leakage Current	0.1 mA max.	ON Voltage/ON Current	14.4 VDC min./3 mA min.		
Residual Voltage	1.5 V max.	OFF Voltage/OFF Current	5 VDC max./1 mA max.		
ON Response Time	0.1 ms max.	ON Response Time	8.0 ms max. (Can be set to between 0 and 32 in		
OFF Response Time	0.8 ms max.	ON Response Time	the Setup.) *		
No. of Circuits	16 (16 points/common, 1 circuit)	OFF Response	8.0 ms max. (Can be set to between 0 and 32 in		
Fuse	None	Time	the Setup.) *		
External Power Supply	10.2 to 26.4 VDC, 20 mA min.	No. of Circuits Number of Simultaneously ON Points	16 (16 points/common, 1 circuit) 75% (at 24 VDC)		
Insulation Resistance	20 $M\Omega$ min. between the external terminals and the GR terminal (at 100 $$	0 VDC)			
Dielectric Strength	1,000 VAC between the external terminals and the GR terminal for 1 m	inute at a leakage curre	ent of 10 mA max.		
Internal Current Consumption	5 VDC 130 mA max.				
Weight	90 g max.				
Accessories	None				
			CN2 (IN)		
	Signal name Allocated CIO word +V Jxx_Ch1_Out00 to Jxx_Ch1_Out07 Wd m Jxx_Ch1_Out07 Wd m Jxx_Ch1_Out08 to Jxx_Ch1_Out108 to Jxx_Ch1_Out108 to Jxx_Ch1_Out108 to Jxx_Ch1_Out108 to Jxx_Ch1_Out108 to Jxx_Ch1_Out108 to Jxx_Ch1_Out108 to Jxx_Ch1_Out15	CIO word Wd m+1 {Jxx_ Jxx_ Wd m+1 {Jxx_	gnal name $Ch1_{1000}$ $Ch1_{1007}$ $Ch1_{1007}$ $COM1$ L L $COM1$ L L $COM1$ L L $CM1_{1010}$ $Ch1_{10108}$ $Ch1_{1015}$ $COM1$ L L L $CM1$ L L L $CM1$ L L L L $CM1$ L		
Circuit Configuration	V CIO word to Jxx_Ch1_Out00 to Jxx_Ch1_Out00 to Jxx_Ch1_Out07 Wd m COM0 indicator V V V V V V V V V V V V V V V V V V V	CIO word Wd m+1 $\begin{cases} Jxx\\ Jx$	gnal name Ch1_In00 $\xrightarrow{1}{10}$		



* The ON response time will be 20 μs maximum and OFF response time will be 400 μs maximum even if the response times are set to 0 ms due to internal element delays.

CJ1W-MD261 DC Input/Transistor Output Unit (24 VDC 32 Inputs/32 Outputs)

	· · · ·		· · · · ·						
Name	32-point DC Input/32-point Transistor Output Unit with Fujitsu Connecto	ors (Sinking Outputs)							
Model	CJ1W-MD261								
Output section (C	N1)	Input section (CN2)							
Rated Voltage	12 to 24 VDC	Rated Input Voltage	24 VDC						
Operating Load Voltage Range	10.2 to 26.4 VDC	Operating Input Voltage	20.4 to 26.4 VDC						
Maximum Load Current	0.3 A/point, 1.6 A/common, 3.2 A/Unit	Input Impedance	5.6 kΩ						
Maximum Inrush Current	3.0 A/point, 10 ms max.	Input Current	4.1 mA typical (at 24 VDC)						
Leakage Current	0.1 mA max.	ON Voltage/ON Current	19.0 VDC min./3 mA min. *2						
Residual Voltage	1.5 V max.	OFF Voltage/OFF Current	5 VDC max./1 mA max.						
ON Response Time	0.5 ms max.	ON Response Time	8.0 ms max. (Can be set to between 0 and 32 in						
OFF Response Time	1.0 ms max.		the Setup.) *1						
No. of Circuits Fuse	32 (16 points/common, 2 circuits) None	OFF Response Time	8.0 ms max. (Can be set to between 0 and 32 in the Setup.) *1						
		No. of Circuits	32 (16 points/common, 2 circuits)						
External Power Supply	10.2 to 26.4 VDC, 30 mA min.	Number of Simultaneously ON Points	75% (24 points) (at 24 VDC)						
Insulation Resistance	20 $M\Omega$ min. between the external terminals and the GR terminal (at 100) VDC)							
Dielectric Strength	1,000 VAC between the external terminals and the GR terminal for 1 minute at a leakage current of 10 mA max.								
Internal Current Consumption	5 VDC 140 mA max.								
Weight	110 g max.								
Accessories	None								
	CN1 (OUT)		CN2 (IN)						
Circuit	Signal Allocated CIO word +V +V Jox_Ch1_Out00 to Jox_Ch1_Out05 Wd m Connect or row A Connect or row A Connect or row B Connect or row B	Allocated CIO word or row A Connect or row B Wd m+2	Signal name Jac, Ch1_Into to Jac, Ch1_Into COM2 COM2 COM2 COM2 COM2 COM2 COM2 COM2						
Configuration	 The signal names of the terminals are the device variable names. The device variable names are the names that use "Jxx" as the device name. 	The device variable name.	of the terminals are the device variable names. names are the names that use "Jxx" as the device						
	Number of Simultanec Ambient Temperature stud NO Asnowline to the state of the stat	Characteristic 32 points at 44°C Input voltage: 24 VDC 12 points/ common at 55°C 40 common at 55°C							



*1. The ON response time will be 120 μs maximum and OFF response time will be 400 μs maximum even if the response times are set to 0 ms due to internal element delays.

*2. Observe the following restrictions when connecting to a 2-wire sensor.

• Make sure the input power supply voltage is larger than the ON voltage (19 V) plus the residual voltage of the sensor (approx. 3 V).

Use a sensor with a minimum load current of 3 mA min.

• Connect bleeder resistance if you connect a sensor with a minimum load current of 5 mA or higher.

omron 12

CJ1W-MD263 DC Input/Transistor Output Unit (24 VDC 32 Inputs/32 Outputs)

	· · · ·				
Name Model	32-point DC Input/32-point Transistor Output Unit with MIL Connectors CJ1W-MD263	(Sinking Outputs)			
Output section (C					
Rated Voltage	12 to 24 VDC	Rated Input	24 VDC		
Operating Load	10.2 to 26.4 VDC	Voltage Operating Input	20.4 to 26.4 VDC		
Voltage Range Maximum Load	0.3 A/point, 1.6 A/common, 3.2 A/Unit	Voltage Input Impedance	5.6 kΩ		
Current Maximum Inrush		mput impedance	0.0 K2		
Current	3.0 A/point, 10 ms max.	Input Current	4.1 mA typical (at 24 VDC)		
Leakage Current	0.1 mA max.	ON Voltage/ON Current	19.0 VDC min./3 mA min. *2		
Residual Voltage	1.5 V max.	OFF Voltage/OFF Current	5 VDC max./1 mA max.		
ON Response Time	0.5 ms max.	ON Response Time	8.0 ms max. (Can be set to between 0 and 32 in		
OFF Response Time	1.0 ms max.		the Setup.) *1		
No. of Circuits Fuse	32 (16 points/common, 2 circuits) None	OFF Response Time	8.0 ms max. (Can be set to between 0 and 32 in the Setup.) *1		
1 430		No. of Circuits	32 (16 points/common, 2 circuits)		
External Power Supply	10.2 to 26.4 VDC, 30 mA min.	Number of Simultaneously ON Points	75% (24 points) (at 24 VDC)		
Insulation Resistance	20 M Ω min. between the external terminals and the GR terminal (at 100 VDC)				
Dielectric Strength	1,000 VAC between the external terminals and the GR terminal for 1 minute at a leakage current of 10 mA max.				
Internal Current Consumption	5 VDC 140 mA max.				
Weight	110 g max.				
Accessories	None				
Circuit Configuration	CN1 (OUT) CN2 (IN) Signal Allocated ClO word +V Jax_Ch1_Out00 Jax_Ch1_Out15 Wd m Jax_Ch1_Out15 Wd m Jax_Ch2_Out10 Jax_Ch2_Int5 COMM COMM COMM COMM COMM COMM COMM COM				
	a constraint of the second sec	40 60 (°C)			



*1. The ON response time will be 120 μs maximum and OFF response time will be 400 μs maximum even if the response times are set to 0 ms due to internal element delays.

- *2. Observe the following restrictions when connecting to a 2-wire sensor.
 - Make sure the input power supply voltage is larger than the ON voltage (19 V) plus the residual voltage of the sensor (approx. 3 V).
 Use a sensor with a minimum load current of 3 mA min.
 - Connect bleeder resistance if you connect a sensor with a minimum load current of 5 mA or higher.

CJ1W-MD232 DC Input/Transistor Output Unit (24 VDC, 16 inputs/16 Outputs)



CJ1W-MD



* The ON response time will be 20 μs maximum and OFF response time will be 400 μs maximum even if the response times are set to 0 ms due to internal element delays.

CJ1W-MD

CJ1W-MD563 TTL I/O Unit (32 Inputs/32 Outputs)

Name	32-point Input /32-point Output TTL I/O Unit with MIL Connectors			
Model	CJ1W-MD563			
Output section (C	N1)	Input section (CN2)		
Rated Voltage	5 VDC±10%	Rated Input Voltage	5 VDC±10%	
Operating Load Voltage Range	4.5 to 5.5 VDC	Input Impedance	1.1 kΩ	
Maximum Load Current	35 mA/point, 560 mA/common, 1.12 A/Unit	Input Current	Approx. 3.5 mA (at 5 VDC)	
Leakage Current	0.1 mA max.	ON Voltage	3.0 VDC min.	
Residual Voltage	0.4 V max.	OFF Voltage	1.0 VDC max.	
ON Response Time	0.2 ms max.	ON Response Time	8.0 ms max. (Can be set to between 0 and 32 i the Setup.) *	
OFF Response Time	0.3 ms max.	OFF Response Time	8.0 ms max. (Can be set to between 0 and 32 i the Setup.) *	
No. of Circuits	32 points (16 points/common, 2 circuits)	TIME		
Fuse	None	No. of Circuits	32 points (16 points/common, 2 circuits)	
External Power Supply	5 VDC±10%, 40 mA min. (1.2 mA $ imes$ No. of ON points)	Number of Simultaneously ON Points	100% (16 points/common)	
Insulation Resistance	20 M Ω min. between the external terminals and the GR terminal (at 100 VDC)			
Dielectric Strength	1,000 VAC between the external terminals and the GR terminal for 1 minute at a leakage current of 10 mA max.			
Internal Current Consumption	5 VDC 190 mA max.			
Weight	110 g max.			
Accessories	None			
	CN1 (OUT)	CN2 (IN)		
Circuit Configuration	 The signal names of the terminals are the device variable names. The device variable names are the names that use "Jxx" as the device name. 	• The signal names of	Signal name Ch1_In00 to Ch1_In15 COM2 COM2 Ch2_In15 COM2 Ch2_In15 COM3 CO	



* The ON response time will be 120 μs maximum and OFF response time will be 400 μs maximum even if the response times are set to 0 ms due to internal element delays.

Bit Allocations for Mixed I/O Unit

32-point Mixed I/O Unit

Allocated	Circul name (C I/N I)	
CIO	Bit	Signal name (CJ/NJ)
	00	OUT0/Jxx_Ch1_Out00
	01	OUT1/Jxx_Ch1_Out01
Wd m (Output)	:	:
(0 4 4 4 4 4	14	OUT14/Jxx_Ch1_Out14
	15	OUT15/Jxx_Ch1_Out15
	00	IN0/Jxx_Ch1_In00
	01	IN1/Jxx_Ch1_In01
Wd m+1 (Input)		:
(put)	14	IN14/Jxx_Ch1_In14
	15	IN15/Jxx_Ch1_In15

64-point Mixed I/O Unit

Allocated CIO word			
CIO	Bit	Signal name (CJ/NJ)	
	00	OUT0/Jxx_Ch1_Out00	
	01	OUT1/Jxx_Ch1_Out01	
Wd m (Output)	:	:	
(earpai)	14	OUT14/Jxx_Ch1_Out14	
	15	OUT15/Jxx_Ch1_Out15	
	00	OUT0/Jxx_Ch2_Out00	
	01	OUT1/Jxx_Ch2_Out01	
Wd m+1 (Output)	:	:	
(earpai)	14	OUT14/Jxx_Ch2_Out14	
	15	OUT15/Jxx_Ch2_Out15	
	00	IN0/Jxx_Ch1_In00	
	01	IN1/Jxx_Ch1_In01	
Wd m+2 (Input)	:	:	
(input)	14	IN14/Jxx_Ch1_In14	
	15	IN15/Jxx_Ch1_In15	
	00	IN0/Jxx_Ch2_In00	
	01	IN1/Jxx_Ch2_In01	
Wd m+3 (Input)	:	:	
(input)	14	IN14/Jxx_Ch2_In14	
	15	IN15/Jxx_Ch2_In15	

External Interface

32-point Units (Model with 24-pin \times 2 Fujitsu Connectors or with 20-pin \times 2 MIL Connectors)



64-point Units (Models with Two 40-point Fujitsu Connectors or MIL Connector)



I/O Unit Wiring Methods

An I/O Unit can be connected to an external device by any of the following three methods.

- 1. User-provided Cable
- An I/O Unit can be directly connected to an external device by using a connector.



2. Connector-Terminal Block Conversion Unit

Use a Connecting Cable to connect to a Connector-Terminal Block Conversion Unit.

Converting the I/O Unit connector to a screw terminal block or push-in terminal block makes it easy to connect external devices.



Α	Connecting Cable for Connector-Terminal Block Conversion Unit XW2Z
в	Connector-Terminal Block Conversion Unit XW2
С	Conversion to a screw terminal block
С	Conversion to a screw terminal block

3. I/O Relay Terminal

Use a Connecting Cable to connect to an I/O Relay Terminal.

The I/O specifications can be converted to relay outputs and AC inputs by connecting the I/O Relay Terminal to an I/O Unit.



 I/O Relay Terminals G70V, G7TC Relay Terminals G70D, G70R I/O Terminal Socket G70A Or, conversion to relay outputs and AC inputs. 	Α	Connecting Cable for I/O Relay Terminals XW2Z-R
	В	G70V, G7TC Relay Terminals G70D, G70R I/O Terminal Socket G70A

1. Using User-made Cables with Connector

Available Connectors

Use the following connectors when assembling a connector and cable.

32- and 64-point Basic I/O Units with Fujitsu-compatible Connectors

Applicable Units

Model	Specifications	Pins
CJ1W-MD261	24-VDC Input/Transistor Output Units, 32 Inputs, 32 Outputs	40
CJ1W-MD231	24-VDC Input/Transistor Output Units, 16 Inputs, 16 Outputs	24

Applicable Cable-side Connectors

Connection	Pins	OMRON set	Fujitsu parts
Solder-type	40	C500-CE404	Socket: FCN-361J040-AU Connector cover: FCN-360C040-J2
Solder-type	24	C500-CE241	Socket: FCN-361J024-AU Connector cover: FCN-360C024-J2
Crimped	40	C500-CE405	Socket: FCN-363J040 Connector cover: FCN-360C040-J2 Contacts: FCN-363J-AU
	24	C500-CE242	Socket: FCN-363J024 Connector cover: FCN-360C024-J2 Contacts: FCN-363J-AU
Pressure-welded	40	C500-CE403	FCN-367J040-AU/F
FIESSUIE-WEIDEU	24 C500-CE243		FCN-367J024-AU/F

32- and 64-point Basic I/O Units with MIL Connectors Applicable Units

Model	Specifications	Pins	
CJ1W-MD263	24-VDC Input/Transistor Output Units, 32 inputs, 32 outputs	40	
CJ1W-MD563	TTL Input/TTL Output Units, 32 inputs, 32 outputs	- 40	
CJ1W-MD232	24-VDC Input/Transistor Output Units, 16 inputs, 16 outputs	20	
CJ1W-MD233	24-VDC Input/Transistor Output Units, 16 inputs, 16 outputs	20	

Applicable Cable-side Connectors

Connection	Pins	OMRON set	DDK parts
Pressure-welded	40	XG4M-4030-T *1	FRC5-A040-3T0S
Flessule-weided	20	XG4M-2030-T	FRC5-A020-3T0S
	40	XG5N-401 *2	HU-40OS2-001
Crimped	-	Crimp Contacts for XG5N *3 XG5W-0232 (loose contacts: 100 pieces) XG5W-0232-R (reel contacts: 10,000 pieces)	HU-111S

*1. Socket and Stain Relief set.

*2. Crimp Contacts (XG5W-0232) are sold separately.

*3. Applicable wire size is AWG 28 to 24. For applicable conductor construction and more information, visit the OMRON website at www.ia.omron.com.

Wire Size

We recommend using cable with wire gauges of AWG 28 to 24 (0.08 to 0.2 mm²). Use cable with external wire diameters of 1.61 mm max.

Crimping Tools

The following models are recommended for crimping tools and pressure-welding tools for Fujitsu connectors. Tools for Crimped Connectors (Fujitsu Component)

Product Name	Model
Hand Crimping Tool	FCN-363T-T005/H
Contact Withdrawal Tool	FCN-360T-T001/H

Tools for Pressure-welded Connectors (Fujitsu Component)

Product Name	Model
Hand Press	FCN-707T-T101/H
Cable Cutter	FCN-707T-T001/H
Locator Plate	FCN-367T-T012/H

The following models are recommended for tools for OMRON MIL connectors.

Tools for Pressure-welded Connectors (OMRON)

Product Name	Model
Pressure-welding Tool	XY2B-0002
Attachment	XY2B-1007

Tools for Crimped Connectors (OMRON)

Product Name	Model
Manual Crimping Tool	XY2B-7007

2. Connecting Connector-Terminal Block Conversion Units

Connection Patterns for Connector-Terminal Block Conversion Units



Combination of I/O Units with Connector-Terminal Block Conversion Units

Unit	I/O capacity	Number of connectors	Polarity	Connection pattern	Connecting Cable *	Connector-Terminal Block Conversion Unit	Wiring method	Common terminals
	2 Fujitsu					XW2R-J20GD-T (2 Units)	Phillips screw	
CJ1W-MD231 16 I/O points	(1 for 16 inputs and	NPN	С	XW2Z-□□□A (2 pcs)	XW2R-E20GD-T (2 Units)	Slotted screw (rise up)	No	
		1 for 16 outputs)			(2 000)	XW2R-P20GD-T (2 Units)	Push-in spring	
		2 MIL connectors				XW2R-J20GD-T (2 Units)	Phillips screw	
CJ1W-MD232	16 I/O points	(1 for 16 inputs and	PNP	С	XW2Z-□□X (2 pcs)	XW2R-E20GD-T (2 Units)	Slotted screw (rise up)	No
		1 for 16 outputs)			(2 000)	XW2R-P20GD-T (2 Units)	Push-in spring	
		2 MIL connectors				XW2R-J20GD-T (2 Units)	Phillips screw	
CJ1W-MD233	16 I/O points	(1 for 16 inputs and	NPN	С	XW2Z-□□X (2 pcs)	XW2R-E20GD-T (2 Units)	Slotted screw (rise up)	No
		1 for 16 outputs)			(2 000)	XW2R-P20GD-T (2 Units)	Push-in spring	
					XW2Z-□□□PF (1 pcs)	XW2R-J34GD-C1 (Input side of the unit)	Dhilling agreed	
	2 Fujitsu connectors			XW2Z-DDPF (1 pcs)	XW2R-J34GD-C3 (Output side of the unit)	Phillips screw		
				XW2Z-DDPF (1 pcs)	XW2R-E34GD-C1 (Input side of the unit)			
CJ1W-MD261	32 I/O points	(1 for 32 inputs and 1 for 32 outputs)	NPN	В	XW2Z-DDPF (1 pcs)	XW2R-E34GD-C3 (Output side of the unit)	Slotted screw (rise up)	No
					XW2Z-DDPF (1 pcs)	XW2R-P34GD-C1 (Input side of the unit)	-	
					XW2Z-□□□PF (1 pcs)	XW2R-P34GD-C3 (Output side of the unit)	Push-in spring	
					XW2Z-□□□PM (1 pcs)	XW2R-J34GD-C2 (Input side of the unit)		
CJ1W-MD263 32 I/O points	2 MIL connectors			XW2Z-□□□PM (1 pcs)	XW2R-J34GD-C4 (Output side of the unit)	Phillips screw	-	
				XW2Z-□□PM (1 pcs)	XW2R-E34GD-C2 (Input side of the unit)			
	32 I/O points	O points (1 for 32 inputs and NI 1 for 32 outputs)	NPN	В	XW2Z-□□□PM (1 pcs)	XW2R-E34GD-C4 (Output side of the unit)	Slotted screw (rise up)	No
					XW2Z-□□□PM (1 pcs)	XW2R-P34GD-C2 (Input side of the unit)	Duch in opting	
					XW2Z-□□□PM (1 pcs)	XW2R-P34GD-C4 (Output side of the unit)	Push-in spring	

* The box \Box is replaced by the cable length.

CJ1W-MD

Unit	I/O capacity	Number of connectors	Polarity	Connection pattern	Connecting Cable *	Connector-Terminal Block Conversion Unit	Wiring method	Common terminals
	CJ1W-MD563 32 I/O points 2 MIL connectors (1 for 32 inputs and 1 for 32 outputs)				XW2Z-□□PM (1 pcs)	XW2R-J34GD-C2 (Input side of the unit)	Phillips screw	
				XW2Z-□□PM (1 pcs)	XW2R-J34GD-C4 (Output side of the unit)	- Fininps Screw		
				В	XW2Z-□□□PM (1 pcs)	XW2R-E34GD-C2 (Input side of the unit)	Slotted screw (rise up)	
C31W-MD565			_		XW2Z-□□□PM (1 pcs)	XW2R-E34GD-C4 (Output side of the unit)	Siotied screw (rise up)	No
					XW2Z-□□□PM (1 pcs)	XW2R-P34GD-C2 (Input side of the unit)	Puch in opring	
					XW2Z-□□□PM (1 pcs)	XW2R-P34GD-C4 (Output side of the unit)	 Push-in spring 	

* The box \square is replaced by the cable length.

3. Connecting I/O Relay Terminals

Connection Patterns for I/O Relay Terminals



Combination of I/O Units with I/O Relay Terminals and Connecting Cables

	I/O U	nits		Connection	Connecting Cables		I/O Relay Terminals			
Model	I/O capacity	External connectors	Polarity	Connection pattern	Model *1	Quantity required	Model	I/O points	Quantity required	Wiring method
	16 inputs	1 Fujitsu connector	NPN/PNP		XW2Z-R□C	1	G70V-SID16P(-1)(-C16) *2	16	1	Push-in spring
	10 mputo	(24 p)					G7TC-ID/IA16	16		Screw terminal
							G70V-SOC16P(-C4)	16		Push-in spring
CJ1W-MD231				E			G7TC-OC16	16	I	
	16 outputs	1 Fujitsu connector	NPN		XW2Z-R⊡C	1	G70D-SOC/FOM16	16	1	
	To outputs	(24 p)	(Sinking)		AW22-RLU	1	G70D-VSOC16/VFOM16	16		Screw terminal
							G70A-ZOC16-3 *4	16		
							G70R-SOC08 *3	8		
		1 MIL				_	G70V-SID16P(-1)(-C16) *2	16		Push-in spring
	16 inputs	connector (20 p)	NPN/PNP		XW2Z-RO□C	1	G7TC-ID/IA16	16	1	Screw terminal
CJ1W-MD232		1 MIL connector (20 p)		E	XW2Z-RI⊡C	1	G70V-SOC16P-1(-C4)	16	_ _ 1 _	Push-in spring
00100-00202	10		PNP (Sourcing)				G70A-ZOC16-4 *4	16		
	16 outputs						G70D-SOC/FOM16-1	16		Screw terminal
					XW2Z-RO□C	1	G7TC-OC16-1	16		
	16 inputs	1 MIL connector (20 p)	or NPN/PNP		XW2Z-RO⊡C	1	G70V-SID16P(-1)(-C16) *2	16	- 1	Push-in spring
							G7TC-ID/IA16	16		Screw terminal
		1 MIL s connector (20 p)	NPN		XW2Z-RO⊡C		G70V-SOC16P(-C4)	16		Push-in spring
CJ1W-MD233				E			G7TC-OC16	16	- - - - -	Screw terminal
	16 outputs					1	G70D-SOC/FOM16	16		
	To outputs		(Sinking)			1	G70D-VSOC16/VFOM16	16		
							G70A-ZOC16-3 *4	16		
							G70R-SOC08 *3	8		
	32 inputs	1 Fujitsu connector	NPN/PNP		XW2Z-RI□C-□	1	G70V-SID16P(-1)(-C16) *2	16	2	Push-in spring
		(40 p)					G7TC-ID/IA16	16		Screw terminal
							G70V-SOC16P(-C4)	16	- 2	Push-in spring
CJ1W-MD261			NPN	В	XW2Z-RO C-		G7TC-OC16	16		
	20 outputo	1 Fujitsu				1	G70D-SOC/FOM16	16		Screw terminal
	32 outputs	connector (40 p)	(Sinking)				G70D-VSOC16/VFOM16	16		
							G70A-ZOC16-3 *4	16		
							G70R-SOC08 *3	8	1	

*1. The box \Box is replaced by the cable length.

*2. Inputs can be either NPN or PNP.

*3. In addition to the G70R-SOC08, 8-point output G7TC-OC08 and G70D-SOC08 models are available.

*4. The G70A-ZOC16-3/4 has I/O terminal sockets. Mounted relays are sold separately.

In addition, an G70A-ZOC16-3/4 will be SPDT \times 16 points with G2R relays.

CJ1W-MD

I/O Units			Connection	Connecting Cables		I/O Relay Terminals				
Model	I/O capacity	External connectors	Polarity	pattern	Model *1	Quantity required	Model	I/O points	Quantity required	Wiring method
3	32 inputs	1 MIL connector	NPN/PNP	в	XW2Z-RO	1	G70V-SID16P(-1)(-C16) *2	16	2	Push-in spring
		(40 p)					G7TC-ID/IA16	16		Screw terminal
	32 outputs	1 MIL NPN	NPN			-	G70V-SOC16P(-C4)	16		Push-in spring
CJ1W-MD263							G7TC-OC16	16		
							G70D-SOC/FOM16	16		
				XW2Z-RO□-□-D1	I	G70D-VSOC16/VFOM16	16	2	Screw terminal	
						G70A-ZOC16-3 *4	16			
						-	G70R-SOC08 *3	8	1	

*1. The box
is replaced by the cable length.
*2. Inputs can be either NPN or PNP.
*3. G70R-SOC08 no longer available to order. In addition to the G70R-SOC08, 8-point output G7TC-OC08 and G70D-SOC08 models are available.

*4. The G70A-ZOC16-3/4 has I/O terminal sockets. Mounted relays are sold separately. In addition, an G70A-ZOC16-3/4 will be SPDT × 16 points with G2R relays.

(Unit: mm)

Dimensions

32-point Units (Mixed I/O Units)

With Fujitsu-compatible connector (24-pin \times 2) CJ1W-MD231





With MIL connector (20-pin × 2) CJ1W-MD232 CJ1W-MD233







64-point Units (Mixed I/O Units)

With Fujitsu-compatible connector (40-pin \times 2) CJ1W-MD261



With MIL connector (40-pin \times 2) CJ1W-MD263 CJ1W-MD563





31

100

60

2.7

5

2.6



(112.5)

66.5 65

0

5

Related Manuals

Name	Cat. No.	Contents
NJ-series CPU Unit Hardware User's Manual NJ501	W500	An introduction to the entire NJ-series system is provided along with the following information on a Controller built with an NJ501 CPU Unit. • Features and system configuration • Introduction • Part names and functions • General specifications • Installation and wiring • Maintenance and inspection Use this manual together with the NJ-series CPU Unit Software User's Manual (Cat. No. W501).
CJ Series CJ1H-CPUH-R, CJ1G/H-CPUH, CJ1G-CPUP, CJ1G-CPU, CJ1M-CPU Programmable Controllers Operation Manual	W393	Provides an outlines of and describes the design, installation, maintenance, and other basic operations for the CJ-series PLCs.
CJ-series CJ2H-CPU6□-EIP, CJ2H-CPU6□, CJ2M-CPU□□ CJ2 CPU Unit Hardware User's Manual	W472	Describes the following for CJ2 CPU Units: • Overview and features • Basic system configuration • Part nomenclature and functions • Mounting and setting procedure • Remedies for errors • Also refer to the Software User's Manual (W473).

Terms and Conditions Agreement

Read and understand this catalog.

Please read and understand this catalog before purchasing the products. Please consult your OMRON representative if you have any questions or comments.

Warranties.

(a) Exclusive Warranty. Omron's exclusive warranty is that the Products will be free from defects in materials and workmanship for a period of twelve months from the date of sale by Omron (or such other period expressed in writing by Omron). Omron disclaims all other warranties, express or implied.

(b) Limitations. OMRON MAKES NO WARRANTY OR REPRESENTATION, EXPRESS OR IMPLIED, ABOUT NON-INFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OF THE PRODUCTS. BUYER ACKNOWLEDGES THAT IT ALONE HAS DETERMINED THAT THE

PRODUCTS WILL SUITABLY MEET THE REQUIREMENTS OF THEIR INTENDED USE.

Omron further disclaims all warranties and responsibility of any type for claims or expenses based on infringement by the Products or otherwise of any intellectual property right. (c) Buyer Remedy. Omron's sole obligation hereunder shall be, at Omron's election, to (i) replace (in the form originally shipped with Buyer responsible for labor charges for removal or replacement thereof) the non-complying Product, (ii) repair the non-complying Product, or (iii) repay or credit Buyer an amount equal to the purchase price of the non-complying Product; provided that in no event shall Omron be responsible for warranty, repair, indemnity or any other claims or expenses regarding the Products unless Omron's analysis confirms that the Products were properly handled, stored, installed and maintained and not subject to contamination, abuse, misuse or inappropriate modification. Return of any Products by Buyer must be approved in writing by Omron before shipment. Omron Companies shall not be liable for the suitability or unsuitability or the results from the use of Products in combination with any electrical or electronic components, circuits, system assemblies or any other materials or substances or environments. Any advice, recommendations or information given orally or in writing, are not to be construed as an amendment or addition to the above warrantv.

See http://www.omron.com/global/ or contact your Omron representative for published information.

Limitation on Liability; Etc.

OMRON COMPANIES SHALL NOT BE LIABLE FOR SPECIAL, INDIRECT, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, LOSS OF PROFITS OR PRODUCTION OR COMMERCIAL LOSS IN ANY WAY CONNECTED WITH THE PRODUCTS, WHETHER SUCH CLAIM IS BASED IN CONTRACT, WARRANTY, NEGLIGENCE OR STRICT LIABILITY.

Further, in no event shall liability of Omron Companies exceed the individual price of the Product on which liability is asserted.

Suitability of Use.

Omron Companies shall not be responsible for conformity with any standards, codes or regulations which apply to the combination of the Product in the Buyer's application or use of the Product. At Buyer's request, Omron will provide applicable third party certification documents identifying ratings and limitations of use which apply to the Product. This information by itself is not sufficient for a complete determination of the suitability of the Product in combination with the end product, machine, system, or other application or use. Buyer shall be solely responsible for determining appropriateness of the particular Product with respect to Buyer's application, product or system. Buyer shall take application responsibility in all cases.

NEVER USE THE PRODUCT FOR AN APPLICATION INVOLVING SERIOUS RISK TO LIFE OR PROPERTY OR IN LARGE QUANTITIES WITHOUT ENSURING THAT THE SYSTEM AS A WHOLE HAS BEEN DESIGNED TO ADDRESS THE RISKS, AND THAT THE OMRON PRODUCT(S) IS PROPERLY RATED AND INSTALLED FOR THE INTENDED USE WITHIN THE OVERALL EQUIPMENT OR SYSTEM.

Programmable Products.

Omron Companies shall not be responsible for the user's programming of a programmable Product, or any consequence thereof.

Performance Data.

Data presented in Omron Company websites, catalogs and other materials is provided as a guide for the user in determining suitability and does not constitute a warranty. It may represent the result of Omron's test conditions, and the user must correlate it to actual application requirements. Actual performance is subject to the Omron's Warranty and Limitations of Liability.

Change in Specifications.

Product specifications and accessories may be changed at any time based on improvements and other reasons. It is our practice to change part numbers when published ratings or features are changed, or when significant construction changes are made. However, some specifications of the Product may be changed without any notice. When in doubt, special part numbers may be assigned to fix or establish key specifications for your application. Please consult with your Omron's representative at any time to confirm actual specifications of purchased Product.

Errors and Omissions. Information presented by Omron Companies has been checked and is believed to be accurate; however, no responsibility is assumed for clerical, typographical or proofreading errors or omissions.

In the interest of product improvement, specifications are subject to change without notice.

OMRON Corporation Industrial Automation Company

http://www.ia.omron.com/