NX-series Analog Output Unit

Analog Outputs to meet all machine control needs; from general-purpose outputs to highspeed synchronous, highresolution control outputs

- Analog Output Units for the NX-series modular I/O system.
- Connect to other NX-series I/O Units and EtherCAT Coupler units using the high-speed NX-bus.
- Separate modules for voltage- and current outputs.



Features

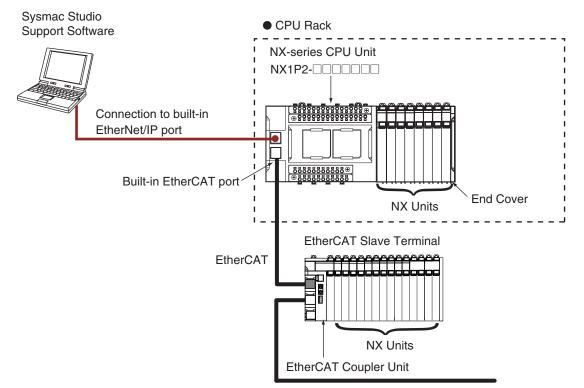
- Up to four analog outputs per unit.
- Free-Run refreshing or Synchronous I/O refreshing can be selected for refreshing with the NX-series NX1P2 CPU Unit or EtherCAT Coupler.
- Output update cycles of 10 µs per channel, and resolution of 1/30000, ideal for high-speed, high-precision control.
- The screwless terminal block is detachable for easy commissioning and maintenance.
- Screwless push-in terminal block significantly reduces wiring work.
- All models are just 12 mm wide, saving space in your cabinet.
- Connection to the CJ-series is possible by connecting with the EtherNet/IP[™] Coupler.

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System Configuration

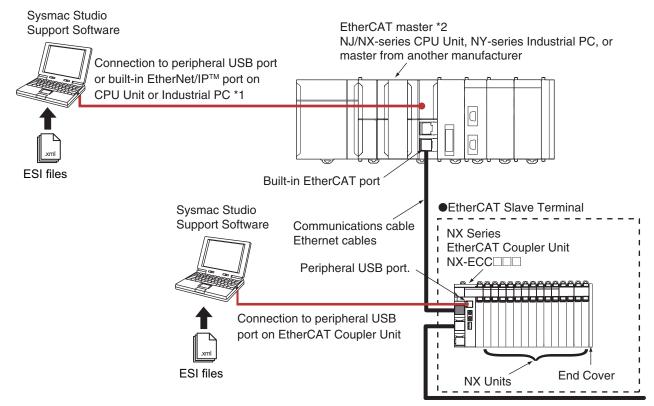
System Configuration in the Case of a CPU Unit

The following figure shows a system configuration when a group of NX Units is connected to an NX-series CPU Unit.



System Configuration of Slave Terminals

The following figure shows an example of the system configuration when an EtherCAT Coupler Unit is used as a Communications Coupler Unit.



- *1. The connection method for the Sysmac Studio depends on the model of the CPU Unit or Industrial PC.
- *2. An EtherCAT Slave Terminal cannot be connected to any of the OMRON CJ1W-NC 81/82 Position Control Units even though they can operate as EtherCAT masters.
- Note: For whether NX Units can be connected to the CPU Unit or Communications Coupler Unit to be used, refer to the user's manual for the CPU Unit or Communications Coupler Unit to be used.

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, CE: EU Directives, RCM: Regulatory Compliance Mark, and KC: KC Registration.
- Contact your OMRON representative for further details and applicable conditions for these standards.

Analog Output Units

	Specification											
Unit type	Product name	Number of points	Input range	Resolution	Output setting value, decimal number (0 to 100%)	Over all accuracy (25°C)	Conversion time	I/O refreshing method	Model	Standards		
				1/8000	-4000 to 4000	±0.3% (full scale)	250 μs/point	Free-Run refreshing	NX-DA2603			
	Voltage Output type	2 points	-10 to	1/30000	-15000 to 15000	±0.1% (full scale)	10 μs/point	Selectable Synchronous I/O refreshing or Free-Run refreshing	NX-DA2605			
		4 points	+10 V	1/8000	-4000 to 4000	±0.3% (full scale)	250 μs/point	Free-Run refreshing	NX-DA3603			
NX- series				1/30000	-15000 to 15000	±0.1% (full scale)	10 μs/point	Selectable Synchronous I/O refreshing or Free-Run refreshing	NX-DA3605	UC1,N, L, CE,		
Output Unit		Current Output 2 points				1/8000	0 to 8000	±0.3% (full scale)	250 μs/point	Free-Run refreshing	NX-DA2203	RCM, KC
			4 to	1/30000	0 to 30000	±0.1% (full scale)	10 μs/point	Selectable Synchronous I/O refreshing or Free-Run refreshing	NX-DA2205	-		
			20 mA	1/8000	0 to 8000	±0.3% (full scale)	250 μs/point	Free-Run refreshing	NX-DA3203			
		4 points		1/30000	0 to 30000	±0.1% (full scale)	10 μs/point	Selectable Synchronous I/O refreshing or Free-Run refreshing	NX-DA3205			

Optional Products

Product name	Specification				Model	Standards
Unit/Terminal Block Coding Pins	For 10 Units (Terminal Block: 30 pins, Unit: 30 pins)			NX-AUX02		
		Specification				
Product name	No. of terminals	Terminal number indications	Ground terminal mark	Terminal current capacity	Model	Standards
Terminal Block	8	A/B	None	10 A	NX-TBA082 NX-TBA122	
	12	AVD	NUTE	IUA		

Accessories

Not included.

General Specification

Item		Specification			
Enclosure Grounding method		Mounted in a panel			
		Ground to 100 Ω or less			
Ambient operating temperature		0 to 55°C			
	Ambient operating humidity	10% to 95% (with no condensation or icing)			
	Atmosphere	Must be free from corrosive gases.			
	Ambient storage temperature	-25 to 70°C (with no condensation or icing)			
	Altitude	2,000 m max.			
	Pollution degree	2 or less: Conforms to JIS B3502 and IEC 61131-2.			
Operating environment	Noise immunity	2 kV on power supply line (Conforms to IEC61000-4-4.)			
environment	Overvoltage category	Category II: Conforms to JIS B3502 and IEC 61131-2.			
	EMC immunity level	Zone B			
	Vibration resistance	Conforms to IEC 60068-2-6. 5 to 8.4 Hz with 3.5-mm amplitude, 8.4 to 150 Hz, acceleration of 9.8 m/s ² , 100 min each in X, Y, and Z directions (10 sweeps of 10 min each = 100 min total)			
	Shock resistance	IConforms to IEC 60068-2-27. 147 m/s ² , 3 times each in X, Y, and Z directions			
Applicable sta	andards *	cULus: Listed (UL508), ANSI/ISA 12.12.01, EU: EN 61131-2, C-Tick or RCM, KC Registration, NK, LR			

* Refer to the OMRON website (www.ia.omron.com) or ask your OMRON representative for the most recent applicable standards for each model.

Analog Output Unit Specifications

Analog Output Unit (voltage output type) 2 points NX-DA2603

Unit name	ame Analog Output Unit (voltage output type) Model		NX-DA2603		
Number of points	2 points	External connection terminals	Screwless clamping terminal block (8 terminals)		
/O refreshing method	Free-Run refreshing	• •			
	TS indicator	Output range	-10 to +10 V		
	DA2603 ■TS	Output conversion range	-5 to 105% (full scale)		
		Allowable load resistance	5 kΩ min.		
Indicator		Output impedance	0.5 Ω max.		
		Resolution	1/8000 (full scale)		
		Overall 25°C	±0.3% (full scale)		
		accuracy 0 to 55°C	±0.5% (full scale)		
		Conversion time	250 μs/point		
Dimensions	12 (W) x 100 (H) x 71 (D)	Isolation method	Between the input and the NX bus: Power = Transformer, Signal = Digital isolator (no isolation between inputs)		
Insulation resistance	20 M Ω min. between isolated circuits (at 100 VDC)	Dielectric strength	510 VAC between isolated circuits for 1 minute at a leakage current of 5 mA max.		
I/O power supply method	Supply from the NX bus	Current capacity of I/O power supply terminal	IOV: 0.1 A/terminal max., IOG: 0.1 A/terminal max.		
NX Unit power consumption	 Connected to a CPU Unit 1.40 W max. Connected to a Communications Coupler Unit 1.10 W max. 	1.40 W max. Connected to a Communications Coupler Unit			
Weight	70 g max.				
Circuit layout	NX bus connector (left) I/O power supply +	uit internal GND AG	IOV Output V1+ to V2+ IOG I/O power supply + I/O power supply - I/O power supply – I/O power supply –		
Installation orientation and restrictions	Installation orientation: • Connected to a CPU Unit: Possible in upright installation. • Connected to a Communications Coupler Unit: Possible in 6 orientations. Restrictions: No restrictions				
Terminal connection diagram	Additional I/O Power Supply Unit A1 B1 I OV IOV IOV IOV IOV IOV IOV IOC IOG IOG IOG IOG IOG IOG IOG IOG	NX-DA2603 B1 V1+ V2+ V2+ Voltage output + IOV IOV Voltage output - IOG IOG IOG IOG IOG IOG IOG IOG IOG IOG			

Unit name	Analog Output Unit (voltage output type)	Model	NX-DA2605		
	Analog Output Onit (voltage output type)	External connection	Screwless clamping terminal block (8		
Number of points	2 points	terminals	terminals)		
I/O refreshing method	Selectable Synchronous I/O refreshing or F				
	TS indicator	Output range	-10 to +10 V		
	DA2605 ■TS	Output conversion range	-5 to 105% (full scale)		
		Allowable load resistance	5 k Ω min.		
Indicator		Output impedance	0.5 Ω max.		
		Resolution	1/30000 (full scale)		
		Overall 25°C	±0.1% (full scale)		
		accuracy 0 to 55°C	±0.3% (full scale)		
		Conversion time	10 μs/point		
Dimensions	12 (W) x 100 (H) x 71 (D)	Isolation method	Between the input and the NX bus: Power = Transformer, Signal = Digital isolator (no isolation between inputs)		
Insulation resistance	20 M Ω min. between isolated circuits (at 100 VDC)	Dielectric strength	510 VAC between isolated circuits for 1 minute at a leakage current of 5 mA max.		
I/O power supply method	Supply from the NX bus	Current capacity of I/O power supply terminal	IOV: 0.1 A/terminal max., IOG: 0.1 A/terminal max.		
NX Unit power consumption	 Connected to a CPU Unit 1.40 W max. Connected to a Communications Coupler Unit 1.10 W max. 	.40 W max. Connected to a Communications Coupler Unit			
Weight	70 g max.				
Circuit layout	NX bus connector (left) I/O power supply - I/O power supply -				
Installation orientation and restrictions	Installation orientation: • Connected to a CPU Unit: Possible in upright installation. • Connected to a Communications Coupler Unit: Possible in 6 orientations. Restrictions: No restrictions				
Terminal connection diagram	Additional I/O Power Supply Unit A1 B1 I OV IOV 24 VDC IOV IOV IOV IOV IOV IOV IOG IOG A8 B8	Voltage Output Unit NX-DA2605 Voltage output + Voltage output + Voltage output - IOV IOV Voltage output - NC NC A8 B8			

Analog Output Unit (voltage output type) 2 points NX-DA2605

Unit name	Analog Output Unit (voltage output type)	NX-DA3603			
		Model External connection	Screwless clamping terminal block (12		
Number of points	4 points	terminals	terminals)		
I/O refreshing method	Free-Run refreshing				
	TS indicator AD3603 ■TS	Output range Output conversion range	-10 to +10 V -5 to 105% (full scale)		
		Allowable load resistance	5 kΩ min.		
Indicator		Output impedance	0.5 Ω max.		
		Resolution	1/8000 (full scale)		
		Overall 25°C	±0.3% (full scale)		
		accuracy 0 to 55°C	±0.5% (full scale)		
		Conversion time	250 μs/point		
Dimensions	12 (W) x 100 (H) x 71 (D)	Isolation method	Between the input and the NX bus: Power = Transformer, Signal = Digital isolator (no isolation between inputs)		
Insulation resistance	20 M Ω min. between isolated circuits (at 100 VDC)	Dielectric strength	510 VAC between isolated circuits for 1 minute at a leakage current of 5 mA max.		
I/O power supply method	Supply from the NX bus	Current capacity of I/O power supply terminal	IOV: 0.1 A/terminal max., IOG: 0.1 A/terminal max.		
NX Unit power consumption	 Connected to a CPU Unit 1.35 W max. Connected to a Communications Coupler Unit 1.25 W max. 	No consumption			
Weight	70 g max.				
Circuit layout	NX bus connector (left) I/O power supply +	uit internal GND AG	IOV Output V1+ to V4+ IOG I/O power supply + I/O power supply – I/O power supply –		
Installation orientation and restrictions	Installation orientation: • Connected to a CPU Unit: Possible in upright installation. • Connected to a Communications Coupler Unit: Possible in 6 orientations. Restrictions: No restrictions				
Terminal connection diagram	Additional I/O Power Supply Unit A1 B1 I OV IOV 24 VDC IOV IOV IOV IOV IOV IOV A8 B8 B8 P	hal I/O pply Unit IOV IOG IOG IOG IOG IOG IOG			

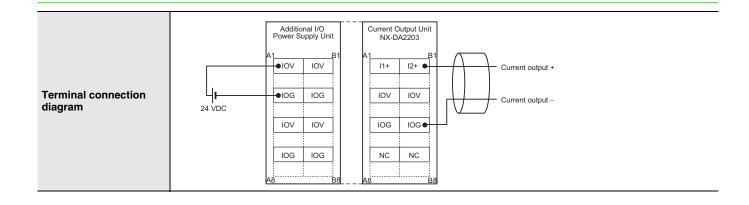
Analog Output Unit (voltage output type) 4 points NX-DA3603

Unit nome		Madal			
Unit name	Analog Output Unit (voltage output type)	Model External connection	NX-DA3605 Screwless clamping terminal block (12		
Number of points	4 points	terminals	terminals)		
I/O refreshing method	Selectable Synchronous I/O refreshing or F				
	TS indicator	Output range	-10 to +10 V		
	DA3605 TS	Output conversion range	-5 to 105% (full scale)		
		Allowable load resistance	5 k Ω min.		
Indicator		Output impedance	0.5 Ω max.		
		Resolution	1/30000 (full scale)		
		Overall 25°C	±0.1% (full scale)		
		accuracy 0 to 55°C	±0.3% (full scale)		
		Conversion time	10 μs/point		
Dimensions	12 (W) x 100 (H) x 71 (D)	Isolation method	Between the input and the NX bus: Power = Transformer, Signal = Digital isolator (no isolation between inputs)		
Insulation resistance	20 M Ω min. between isolated circuits (at 100 VDC)	Dielectric strength	510 VAC between isolated circuits for 1 minute at a leakage current of 5 mA max.		
I/O power supply method	Supply from the NX bus	Current capacity of I/O power supply terminal	IOV: 0.1 A/terminal max., IOG: 0.1 A/terminal max.		
NX Unit power consumption	 Connected to a CPU Unit 1.60 W max. Connected to a Communications Coupler Unit 1.25 W max. 	I/O current consumption	No consumption		
Weight	70 g max.				
Circuit layout	NX bus connector (left) //O power supply +	uit internal GND AG	IOV Output V1+ to V4+ IOG I/O power supply + I/O power supply - I/O power supply -		
Installation orientation and restrictions	Installation orientation: • Connected to a CPU Unit: Possible in upright installation. • Connected to a Communications Coupler Unit: Possible in 6 orientations. Restrictions: No restrictions				
Terminal connection diagram	Additional I/O Power Supply Unit A1B10B10B10B100000000	Voltage Output Unit NX-DA3605 1 B1 1 V1+ V2+ 1 IOV IOV 1 IOG IOG 1 V3+ V4+ 1 IOV IOV 1 IOG IOG 1 IOV 1 IOS 1	Voltage output +		

Analog Output Unit (voltage output type) 4 points NX-DA3605

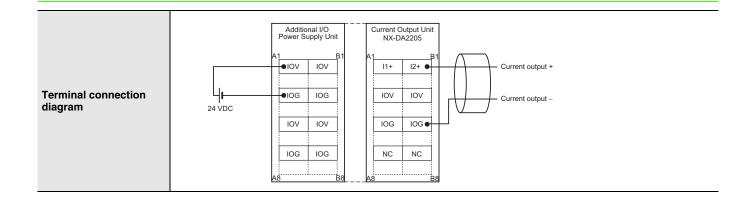
Unit name	Analog Output Unit (current output type)	Model	NX-DA2203			
Number of points	2 points	External connection terminals	Screwless clamping terminal block (8 terminals)			
I/O refreshing method	Free-Run refreshing					
	TS indicator	Output range	4 to 20 mA			
	DA2203 ■TS	Output conversion range	-5 to 105% (full scale)			
Indicator		Allowable load resistance	600 Ω min.			
		Resolution	1/8000 (full scale)			
		Overall 25°C	±0.3% (full scale)			
		accuracy 0 to 55°C	±0.6% (full scale)			
		Conversion time	250 μs/point			
Dimensions	12 (W) x 100 (H) x 71 (D)	Isolation method	Between the input and the NX bus: Power = Transformer, Signal = Digital isolator (no isolation between inputs)			
Insulation resistance	20 M Ω min. between isolated circuits (at 100 VDC)	Dielectric strength	510 VAC between isolated circuits for 1 minute at a leakage current of 5 mA max.			
I/O power supply method	Supply from the NX bus	Current capacity of I/O power supply terminal	IOV: 0.1 A/terminal max., IOG: 0.1 A/terminal max.			
NX Unit power consumption	 Connected to a CPU Unit 2.10 W max. Connected to a Communications Coupler Unit 1.75 W max. 	s I/O current consumption No consumption				
Weight	70 g max.		·			
Circuit layout	AG: Analog circ connector (left) I/O power supply +	AMP K	IOV Output 11+ to 12+ IOG I/O power supply + I/O power supply - NX bus connector (right)			
Installation orientation and restrictions	Installation orientation: • Connected to a CPU Unit: Possible in upright installation. • Connected to a Communications Coupler Unit: Possible in 6 orientations. Restrictions: For upright installation: No restrictions For any installation other than upright: Restricted as shown in the graph below. () () () () () () () () () ()					

Analog Output Unit (current output type) 2 points NX-DA2203



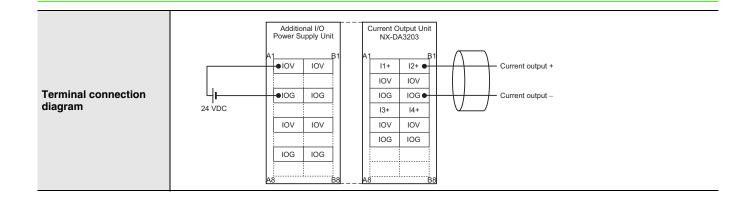
Linit name	Angles Output Linit (oursent output time)	Medel	NX-DA2205		
Unit name	Analog Output Unit (current output type)	Model External connection	Screwless clamping terminal block (8		
Number of points	2 points	terminals	terminals)		
I/O refreshing method	Selectable Synchronous I/O refreshing or Free-Run refreshing				
	TS indicator	Output range	4 to 20 mA		
	DA2205 ■TS	Output conversion range	-5 to 105% (full scale)		
Indicator		Allowable load resistance	600 Ω min.		
		Resolution	1/30000 (full scale)		
		Overall 25°C	±0.1% (full scale)		
		accuracy 0 to 55°C	±0.3% (full scale)		
		Conversion time	10 μs/point		
Dimensions	12 (W) x 100 (H) x 71 (D)	Isolation method	Between the input and the NX bus: Power = Transformer, Signal = Digital isolator (no isolation between inputs)		
Insulation resistance	20 M Ω min. between isolated circuits (at 100 VDC)	Dielectric strength	510 VAC between isolated circuits for 1 minute at a leakage current of 5 mA max.		
I/O power supply method	Supply from the NX bus	Current capacity of I/O power supply terminal	IOV: 0.1 A/terminal max., IOG: 0.1 A/terminal max.		
NX Unit power consumption	 Connected to a CPU Unit 2.10 W max. Connected to a Communications Coupler Unit 1.75 W max. 	I/O current consumption	No consumption		
Weight	70 g max.				
Circuit layout	NX bus connector (left) I/O power supply +	uit internal GND AG	IOV Output I1+ to I2+ IOG I/O power supply + I/O power supply - I/O power supply –		
Installation orientation and restrictions	Installation orientation: • Connected to a CPU Unit: Possible in upright installation. • Connected to a Communications Coupler Unit: Possible in 6 orientations. Restrictions: For upright installation : No restrictions For any installation other than upright: Restricted as shown in the graph below. () () () () () () () () () ()				

Analog Output Unit (current output type) 2 points NX-DA2205



Unit name	Analog Output Unit (current output type)	Model	NX-DA3203		
		External connection	Screwless clamping terminal block (12		
Number of points	4 points	terminals	terminals)		
I/O refreshing method	Free-Run refreshing				
	TS indicator	Output range	4 to 20 mA		
	DA3203 ■TS	Output conversion range	-5 to 105% (full scale)		
Indicator		Allowable load resistance	350 Ω min.		
		Resolution	1/8000 (full scale)		
		Overall 25°C	±0.3% (full scale)		
		accuracy 0 to 55°C	±0.6% (full scale)		
		Conversion time	250 μs/point		
Dimensions	12 (W) x 100 (H) x 71 (D)	Isolation method	Between the input and the NX bus: Power = Transformer, Signal = Digital isolator (no isolation between inputs)		
Insulation resistance	20 M Ω min. between isolated circuits (at 100 VDC)	Dielectric strength	510 VAC between isolated circuits for 1 minute at a leakage current of 5 mA max.		
I/O power supply method	Supply from the NX bus	Current capacity of I/O power supply terminal	IOV: 0.1 A/terminal max., IOG: 0.1 A/terminal max.		
NX Unit power consumption	 Connected to a CPU Unit 2.10 W max. Connected to a Communications Coupler Unit 1.80 W max. 	I/O current consumption No consumption			
Weight	70 g max.		•		
Circuit layout	NX bus connector (left) I/O power supply + O	AMP (0) t internal GND AG	Output I1+ to I4+ IOG I/O power supply + I/O power supply - NX bus connector (right)		
Installation orientation and restrictions	Installation orientation: • Connected to a CPU Unit: Possible in upright installation. • Connected to a Communications Coupler Unit: Possible in 6 orientations. Restrictions: For upright installation: No restrictions For any installation other than upright: Restricted as shown in the graph below. () () () () () () () () () ()				

Analog Output Unit (current output type) 4 points NX-DA3203



		- 	1.11/ D.1.0007		
Unit name	Analog Output Unit (current output type)	Model	NX-DA3205		
Number of points	4 points	External connection terminals	Screwless clamping terminal block (12 terminals)		
I/O refreshing method	Selectable Synchronous I/O refreshing or F	Free-Run refreshing			
	TS indicator	Output range	4 to 20 mA		
	DA3205 TS	Output conversion range	-5 to 105% (full scale)		
Indicator		Allowable load resistance	350 Ω min.		
		Resolution	1/30000 (full scale)		
		Overall 25°C	±0.1% (full scale)		
		accuracy 0 to 55°C	±0.3% (full scale)		
		Conversion time	10 μs/point		
Dimensions	12 (W) x 100 (H) x 71 (D)	Isolation method	Between the input and the NX bus: Power = Transformer, Signal = Digital isolator (no isolation between inputs)		
Insulation resistance	20 M Ω min. between isolated circuits (at 100 VDC)	Dielectric strength	510 VAC between isolated circuits for 1 minute at a leakage current of 5 mA max.		
I/O power supply method	Supply from the NX bus	Current capacity of I/O power supply terminal	IOV: 0.1 A/terminal max., IOG: 0.1 A/terminal max.		
NX Unit power consumption	 Connected to a CPU Unit 2.10 W max. Connected to a Communications Coupler Unit 1.80 W max. I/O current consumption No consumption 				
Weight	70 g max.				
Circuit layout	NX bus connector (left) I/O power supply +	uit internal GND	IOV Output I1+ to I4+ IOG I/O power supply + I/O power supply - I/O power supply -		
Installation orientation and restrictions	Installation orientation: • Connected to a CPU Unit: Possible in upright installation. • Connected to a Communications Coupler Unit: Possible in 6 orientations. Restrictions: For upright installation: No restrictions For any installation other than upright: Restricted as shown in the graph below. () () () () () () () () () ()				

Analog Output Unit (current output type) 4 points NX-DA3205

Terminal connection diagram		NG 10G NV 10V NG 10G	Current Output Unit NX-DA3205 A1 B1 11+ 12+ 0 10V 10V 10G 10G 13+ 14+ 10V 10V 10G 10G 48 B8	Current output + Current output –
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Version Information

Connecting with CPU Units

Refer to the user's manual for the CPU Unit for the CPU Unit to which NX Units can be connected.

NX U	nit	Corresponding versions *				
Model	Model Unit version		Sysmac Studio			
NX-DA	Ver.1.0	Ver.1.13 or later	Ver.1.17 or higher			
* Some Units do not have all of the versions given in the above table. If a Unit does not have the specified version, support is provided by the						

oldest available version after the specified version. Refer to the user's manuals for the specific Units for the relation between models and versions.

Connecting with Coupler Units

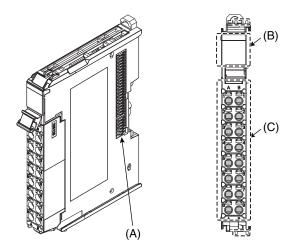
NX	Unit	Corresponding versions *					
		EtherCAT			EtherNet/IP		
Model	Unit version	Communications Coupler Unit	NJ/NX-series CPU Units or NY-series Industrial PCs	Sysmac Studio	Communications Coupler Unit	Sysmac Studio	
NX-DA	Ver.1.0	Ver.1.0 or later	Ver.1.05 or later	Ver.1.06 or higher	Ver.1.0 or later	Ver.1.10 or higher	

* Some Units do not have all of the versions given in the above table. If a Unit does not have the specified version, support is provided by the oldest available version after the specified version. Refer to the user's manuals for the specific Units for the relation between models and versions.

External Interface

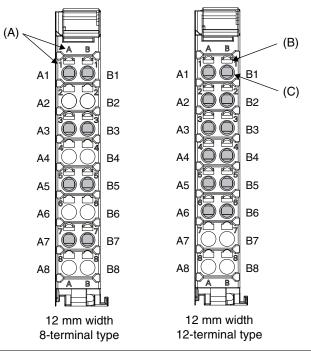
Analog Output Unit

NX-DA



Symbol	Name	Function	
(A)	NX bus connector	This connector is used to connect each Unit.	
(B)	Indicators	The indicators show the current operating status of the Unit.	
(C)	Terminal block	The terminal block is used to connect external devices. The number of terminals depends on the type of Unit.	

Terminal Blocks



Symbol	Name	Function
(A)	Terminal number indications	Terminal numbers for which A to D indicate the column, and 1 to 8 indicate the line are displayed. The terminal number is a combination of column and line, so A1 to A8 and B1 to B8 are displayed. The terminal number indications are the same regardless of the number of terminals on the terminal block.
(B)	Release holes	Insert a flat-blade screwdriver into these holes to connect and remove the wires.
(C)	Terminal holes	The wires are inserted into these holes.

Applicable Terminal Blocks for Each Unit Model

	Terminal Blocks						
Unit model	Model	No. of terminals	Terminal number indications	Ground terminal mark	Terminal current capacity		
NX-DA2	NX-TBA082	8	A/B	None	10 A		
NX-DA3	NX-TBA122	12	A/B	None	10 A		

Applicable Wires

Using Ferrules

If you use ferrules, attach the twisted wires to them.

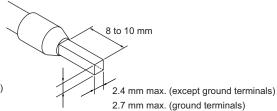
Observe the application instructions for your ferrules for the wire stripping length when attaching ferrules. Always use plated one-pin ferrules. Do not use unplated ferrules or two-pin ferrules.

The applicable ferrules,	wires, and c	rimping tool are	aiven in the	following table.
	winco, and o	ininping tool uld	given in the	tonowing tuble.

Terminal types	Manufacturer	Ferrule model number	Applicable wire (mm ² (AWG))	Crimping tool	
Terminals other	Phoenix Contact	AI0,34-8	0.34 (#22)		
than ground		AI0,5-8	0.5 (#20)	CRIMPFOX 6 (0.25 to 6 mm ² , AWG24 to 10)	
terminals	AI0,5-10	Ť			
		AI0,75-8	0.75 (#18)		
	AI0,75-10	Ť			
		Al1,0-8	1.0 (#18)		
		AI1,0-10	Ť		
		AI1,5-8	1.5 (#16)		
		AI1,5-10	Ť		
Ground terminals		Al2,5-10	2.0 *		
Terminals other Weidmuller than ground	H0.14/12	0.14 (#26)	Weidmuller (The figure in parentheses is the applicable wire size.)		
	H0.25/12	0.25 (#24)	PZ6 Roto (0.14 to 6 mm ² , AWG 26 to 10)		
terminals		H0.34/12	0.34 (#22)		
		H0.5/14	0.5 (#20)		
		H0.5/16	Ť		
		H0.75/14	0.75 (#18)		
		H0.75/16	Ť		
	H1.0/14	1.0 (#18)			
		H1.0/16	Ť		
		H1.5/14	1.5 (#16)	1	
		H1.5/16	Ī		

* Some AWG 14 wires exceed 2.0 mm² and cannot be used in the screwless clamping terminal block.

When you use any ferrules other than those in the above table, crimp them to the twisted wires so that the following processed dimensions are achieved. Finished Dimensions of Ferrules



1.6 mm max. (except ground terminals)

2.0 mm max. (ground terminals)

Using Twisted Wires/Solid Wires

If you use the twisted wires or the solid wires, use the following table to determine the correct wire specifications.

Terminals		Wire type				Wire size	Conductor length (stripping length)
Terminais		Twisted wires So		Solid wire			
Classification	Current capacity	Plated	Plated Unplated Plated Unplated			(ourpping longur)	
	2 A max.	Possible Not		Possible	Possible	0.08 to 1.5 mm ² AWG28 to 16	8 to 10 mm
All terminals except ground terminals	Greater than 2 A and 4 A or less			Possible *1	Not Possible		
	Greater than 4 A	Possible *1	ssible *1 Possible		Possible		
Ground terminals		Possible	Possible	Possible *2	Possible *2	2.0 mm ²	9 to 10 mm

*1. Secure wires to the screwless clamping terminal block. Refer to the Securing Wires in the USER'S MANUAL for how to secure wires. *2. With the NX-TB___1 Terminal Block, use twisted wires to connect the ground terminal. Do not use a solid wire.

Conductor length (stripping length)

<Additional Information> If more than 2 A will flow on the wires, use plated wires or use ferrules.

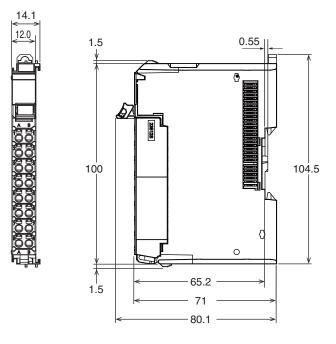
OMRON

(Unit/mm)

Dimensions

Analog Output Unit

12 mm Width



Related Manuals

Cat. No.	Model number	Manual name	Application	Description
W522	NX-AD	NX-series Analog I/O Units User's Manual for Analog Input Units and Analog Output Units		The hardware, setup methods, and functions of the NX- series Analog Input Units and Analog Output Units are described.

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