NX-series Analog I/O Unit

Analog inputs and outputs to meet all machine control needs, from general purpose to high-speed synchronous control

- Connect to other NX I/O Units and EtherCAT[®] Coupler Units using the high-speed NX-bus
- Separate modules for voltage and current



Features

- Up to eight analog inputs per unit (NX-AD)
- Up to four analog outputs per unit (NX-DA)
- Free-run refreshing or synchronous I/O refreshing with the NX1P2 CPU Unit or EtherCAT Coupler Unit
- \bullet Sampling times down to 10 μs per channel and high resolution of 1/30,000
- Single-ended or differential input (NX-AD)
- Selecting channel to use, moving average, input disconnection detection, over range/under range detection, and user calibration
- Detachable front connector with screwless Push-In Plus terminals for easy installation and maintenance
- Compact with a width of 12 mm per unit
- Connect to the CJ PLC using the EtherNet/IP[™] bus coupler

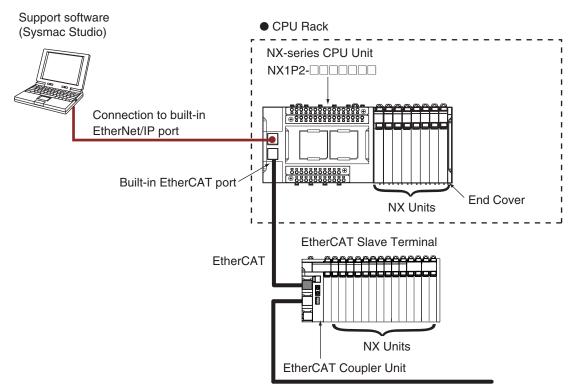
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System Configurations

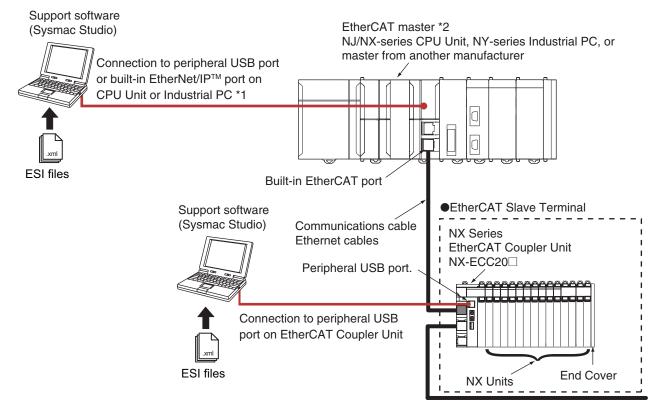
Connected to a CPU Unit

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



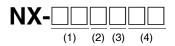
Connected to an EtherCAT Coupler Unit

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: To check whether NX Units can be connected to your CPU Unit or Communications Coupler Unit, refer to the user's manual for the CPU Unit or Communications Coupler Unit.

Model Number Structure



(1) Unit type

No.	Specification
AD	Analog input
DA	Analog output

(2) Number of points

No.	Specification	
2	2 points	
3	4 points	
4	8 points	

(3) I/O range

(-)	- J-
No.	Specification
1	
2	4 to 20 mA
6	-10 to +10 V

(4) Other specifications Analog Input Units

				I/O refreshing method			
No.	Resolution	Conversion time	Input method	Free-Run refreshing *1 only	Switching synchronous I/O refreshing *2 and Free-Run refreshing		
03	1/8000	250 μs/point	Single-ended	Yes			
04	1/8000	250 μs/point	Differential	Yes			
08	1/30000	10 μs/point	Differential		Yes		

*1 Free-Run refreshing*2 Synchronous I/O refreshing

Analog Output Units

			I/O refreshing method			
No.	Resolution	Conversion time	Free-Run refreshing *1 only	Switching synchronous I/O refreshing *2 and Free-Run refreshing		
03	1/8000	250 μs/point	Yes			
05	1/30000	10 μs/point		Yes		

1** Free-Run refreshing2** Synchronous I/O refreshing

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 Input Units

			Specification														
Unit type	Product name	Number of points	Input range	Resolution	Conversion value, decimal number (0 to 100%)	Over all accuracy (25°C)	Input method	Conversion time	Input impedance	I/O refreshing method	Model	Stand ards					
				1/8000	-4000 to 4000	±0.2% (full scale)	Single- ended input Differential input	250 μs/ point		Free-Run refreshing	NX-AD2603 NX-AD2604	-					
		2 points		1/30000	-15000 to 15000	±0.1% (full scale)	Differential input	10 μs/ point		Selectable Synchronous I/O refreshing or Free-Run refreshing	NX-AD2608						
	Voltage Input		+		-4000 to	±0.2%	Single- ended input	250 μs/		Free-Run	NX-AD3603	+					
	type		40.1	1/8000	4000 10	full scale)	Differential	point		refreshing	NX-AD3604						
			4 points -10 to +10 V	1/30000	-15000 to 15000	±0.1% (full scale)	Differential input	10 μs/ point	1 MΩ min.	Selectable Synchronous I/O refreshing or Free-Run refreshing	NX-AD3608						
		8 points	-		-4000 to	±0.2%	Single- ended input	250 μs/		Free-	Free-Run	NX-AD4603					
				1/8000	4000	(full scale)	Differential input	point		refreshing	NX-AD4604	UC1, N, L,					
NX- series				1/30000	-15000 to 15000	±0.1% (full scale)	Differential input	10 μs/ point		Selectable Synchronous I/O refreshing or Free-Run refreshing	NX-AD4608						
Analog Input Unit		2 points							4/0000	0.1.0000	±0.2%	Single- ended input	250 μs/		Free-Run	NX-AD2203	CE, RCM, KC
				1/8000	0 to 8000	(full scale)	Differential input	point		refreshing	NX-AD2204						
			2 points		1/30000	0 to 30000	±0.1% (full scale)	Differential input	10 μs/ point	050.0	- 250 Ω	Selectable Synchronous I/O refreshing or Free-Run refreshing	NX-AD2208				
	Current Input type			1/8000	0 to 8000	±0.2%	Single- ended input	250 μs/	250 12	Free-Run	NX-AD3203						
	type		4 to	1/8000	0 10 8000	(full scale)	Differential input	point		refreshing	NX-AD3204						
			4 points 4 to 20 mA	1/30000	0 to 30000	±0.1% (full scale)	Differential input	10 μs/ point		Selectable Synchronous I/O refreshing or Free-Run refreshing	NX-AD3208						
			1	4/0000	0.1.0000	±0.2%	Single- ended input	250 μs/		Free-Run	NX-AD4203	1					
					1/8000	0 to 8000	(full scale)		point		refreshing	NX-AD4204	1				
		8 points		1/30000	0 to 30000	±0.1% (full scale)	Differential input	10 μs/ point	85 Ω	Selectable Synchronous I/O refreshing or Free-Run refreshing	NX-AD4208						

Unit type	Product name	Number of points	Output 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	2 points	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 +1	+10 V	1/8000	-4000 to 4000	±0.3% (full scale)	250 μs/point	Free-Run refreshing	NX-DA3603	
			_	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.
				1/8000	0 to 8000	±0.3% (full scale)	250 μs/point	Free-Run refreshing	NX-DA2203	RCM, KC
	Current Output type	2 points	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	

Analog Output Units

Optional Products

Product name		Specification				
Unit/Terminal Block Coding Pins	For 10 Units (Terminal Block: 30 pins, Unit: 30 pins)				NX-AUX02	
Product name	No. of terminals	Terminal number indications	Ground terminal mark	Terminal current capacity	Model	Standards
	8		None	10 A	NX-TBA082	
Terminal Block	12	A/B			NX-TBA122	
	16				NX-TBA162	

Accessories

Not included.

General Specifications

	Item	Specification		
Enclosure		Mounted in a panel		
Grounding m	ethod	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 Input Unit Specifications

Analog Input Unit (voltage input type) 2 points NX-AD2603

Unit name	Analog Input Unit (voltage input type)	Model	NX-AD2603		
Number of points	2 points	External connection terminals	Screwless clamping terminal block (8 terminals)		
/O refreshing method	Free-Run refreshing				
	TS indicator	Input method	Single-ended input		
	AD2603	Input range	-10 to +10 V		
		Input conversion range	-5 to 105% (full scale)		
		Absolute maximum rating	±15 V		
Indicator		Input impedance	1 MΩ min.		
		Resolution	1/8000 (full scale)		
		Overall 25°C	±0.2% (full scale)		
		accuracy 0 to 55°C	±0.4% (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 1.05 W max. 	I/O current consumption			
Weight	70 g max.				
Circuit layout	Terminal block INV Input1+ to 2+	AG AG: Analog circuit ir	NX bus 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: No restrictions				
Terminal connection diagram	Additional I/O Power Supply Unit A1 B1 I I I I I I I I I I I I I I I I I I I		Input + 24 V (Sensor power supply +) 0 V (Sensor power supply – / Input –) e-wire sensor		
Input disconnection detection	Not supported.				

		Madal	NX-AD2604				
Unit name	Analog Input Unit (voltage input type)	Model External connection	Screwless clamping terminal block (8				
Number of points	2 points	terminals	terminals)				
I/O refreshing method	Free-Run refreshing						
	TS indicator	Input method	Differential Input				
	AD2604 ■TS	Input range	-10 to +10 V				
		Input conversion range	-5 to 105% (full scale)				
la dia sta a		Absolute maximum rating	±15 V				
Indicator		Input impedance	1 M Ω min.				
		Resolution	1/8000 (full scale)				
		Overall 25°C	±0.2% (full scale)				
		accuracy 0 to 55°C	±0.4% (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	No supply	Current capacity of I/O power supply terminal	Without I/O power supply terminals				
NX Unit power consumption	 Connected to a CPU Unit 1.35 W max. Connected to a Communications Coupler Unit 1.05 W max. 	I/O current consumption	No consumption				
Weight	70 g max.						
Circuit layout	Terminal block Input1+ to 2+ AG AG: Analog circuit internal GND NX bus connector (left) 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	Voltage Input Unit NX-AD2604 A1 Input1+ Input1+ Input1- Input1- Input1- AG Input1- Input2+ Input2+ Input2+ Input2+ Input2+ Input2+ Input2+						
Input disconnection detection	Not supported.						

Analog Input Unit (voltage input type) 2 points NX-AD2604

Unit name	Analog Input Unit (voltage input type)	Model	NX-AD2608		
		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	Input method	Differential Input		
	AD2608	Input range	-10 to +10 V		
		Input conversion range	-5 to 105% (full scale)		
Indicator		Absolute maximum rating	±15 V		
Indicator		Input impedance	1 M Ω min.		
		Resolution	1/30000 (full scale)		
		Overall 25°C	±0.1% (full scale)		
		accuracy 0 to 55°C	±0.2% (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 $M\Omega$ 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	No supply	Current capacity of I/O power supply terminal	Without I/O power supply terminals		
NX Unit power consumption	 Connected to a CPU Unit 1.35 W max. Connected to a Communications Coupler Unit 1.05 W max. 	I/O current consumption	No consumption		
Weight	70 g max.				
Circuit layout	Terminal block Input1+ to 2+ AG NX bus connector (left) I/O power supply + I/O power supply - 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 up • Connected to a Communications Couple Restrictions: No restrictions		ions.		
Terminal connection diagram	Voltage Input Unit NX-AD2608 A1 Input1+ Input2+ Input1- Input2- AG Input3 Input2+ Input1- Input2- AG AG AG AG AG AG It is not necessary to wire AG terminal normally.				
Input disconnection detection	Not supported.				

Analog Input Unit (voltage input type) 2 points NX-AD2608

			-
Unit name	Analog Input Unit (voltage input type)	Model	NX-AD3603
Number of points	4 points	External connection terminals	Screwless clamping terminal block (12 terminals)
I/O refreshing method	Free-Run refreshing	Γ	
	TS indicator	Input method	Single-ended input
	AD3603	Input range	-10 to +10 V
		Input conversion range	-5 to 105% (full scale)
la dia stan		Absolute maximum rating	±15 V
Indicator		Input impedance	1 MΩ min.
		Resolution	1/8000 (full scale)
		Overall 25°C	±0.2% (full scale)
		accuracy 0 to 55°C	±0.4% (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 $M\Omega$ 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 1.10 W max. 	I/O current consumption	No consumption
Weight	70 g max.		
Circuit layout	Terminal block INC Input1+ to 4+	1MΩ AG AG: Analog circuit inte	rnal GND I/O power supply + NX bus connector (right)
Installation orientation and restrictions	Installation orientation: • Connected to a CPU Unit: Possible in up • Connected to a Communications Couple Restrictions: No restrictions		tions.
Terminal connection diagram	Additional I/O Power Supply Unit A1 B1 I I I I I/O Power Supply Unit A1 B1 I I I I I I I I I I I I I I I I I I I	Voltage Input Unit NX-AD3603 A1 B1 Input1+ Input2+ IOV IOV IOG IOG Input3+ Input4+ IOV IOV IOG IOG A8 B8	Input + 24 V (Sensor power supply +) 0 V (Sensor power supply – / Input –) re sensor
Input disconnection detection	Not supported.		

Analog Input Unit (voltage input type) 4 points NX-AD3603

		Medal	
Unit name	Analog Input Unit (voltage input type)	Model	NX-AD3604
Number of points	4 points	External connection terminals	Screwless clamping terminal block (12 terminals)
I/O refreshing method	Free-Run refreshing		
	TS indicator	Input method	Differential Input
	AD3604 ■TS	Input range	-10 to +10 V
		Input conversion range	-5 to 105% (full scale)
Indicator		Absolute maximum rating	±15 V
indicator		Input impedance	1 MΩ min.
		Resolution	1/8000 (full scale)
		Overall 25°C	±0.2% (full scale)
		accuracy 0 to 55°C	±0.4% (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	No supply	Current capacity of I/O power supply terminal	Without I/O power supply terminals
NX Unit power consumption	 Connected to a CPU Unit 1.35 W max. Connected to a Communications Coupler Unit 1.10 W max. 	I/O current consumption	No consumption
Weight	70 g max.		
Circuit layout	Terminal block Input1+ to 4+ Input1− to 4− AG NX bus connector [I/O power supply + I/O power supply − I/O power supply −	AMP 510 KΩ AG AG: Analog circuit inter	nal GND I/O power supply + NX bus connector I/O power supply - (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: No restrictions		
Terminal connection diagram	Voltage Input Unit NX-AD3604 A1 Input1+ Input2+0 Input1- Input2-0 Input + Input3+ Input4+ Input4- AG AG AG AG		
Input disconnection detection	Not supported.		

Analog Input Unit (voltage input type) 4 points NX-AD3604

		NA1 - 1			
Unit name	Analog Input Unit (voltage input type)	Model	NX-AD3608		
Number of points	4 points	External connection terminals	Screwless clamping terminal block (12 terminals)		
I/O refreshing method	· · ·	Selectable Synchronous I/O refreshing or Free-Run refreshing			
	TS indicator AD3608	Input method	Differential Input		
	ADS008 ■TS	Input range	-10 to +10 V		
		Input conversion range	-5 to 105% (full scale)		
Indicator		Absolute maximum rating	±15 V		
indicator		Input impedance	1 MΩ min.		
		Resolution	1/30000 (full scale)		
		Overall 25°C	±0.1% (full scale)		
		accuracy 0 to 55°C	±0.2% (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	No supply	Current capacity of I/O power supply terminal	Without I/O power supply terminals		
NX Unit power consumption	 Connected to a CPU Unit 1.45 W max. Connected to a Communications Coupler Unit 1.10 W max. 	I/O current consumption	No consumption		
Weight	70 g max.				
Circuit layout	Terminal block Input1+ to 4+	AMP 510 KΩ AG AG: Analog circuit inte	rnal GND I/O power supply + I/O power supply –		
Installation orientation and restrictions	Installation orientation: • Connected to a CPU Unit: Possible in up • Connected to a Communications Couple Restrictions: No restrictions		ions.		
Terminal connection diagram	Input1- Input2- Input3+ Input4+ Input3- Input4- AG AG AG AG	Input + Input – d to 0 V of analog circuit inside the Ur e AG terminal normally.	ıit.		
Input disconnection detection	Not supported.				

Analog Input Unit (voltage input type) 4 points NX-AD3608

		841 - 1	
Unit name	Analog Input Unit (voltage input type)	Model	NX-AD4603
Number of points	8 points	External connection terminals	Screwless clamping terminal block (16 terminals)
I/O refreshing method	Free-Run refreshing		F
	TS indicator	Input method	Single-ended input
	AD4603	Input range	-10 to +10 V
		Input conversion range	-5 to 105% (full scale)
la d'a stan		Absolute maximum rating	±15 V
Indicator		Input impedance	1 M Ω min.
		Resolution	1/8000 (full scale)
		Overall 25°C	±0.2% (full scale)
		accuracy 0 to 55°C	±0.4% (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	IOG: 0.1 A/terminal max.
NX Unit power consumption	 Connected to a CPU Unit 45 W max. Connected to a Communications Coupler Unit 1.15 W max. 	I/O current consumption	No consumption
Weight	70 g max.		
Circuit layout	Terminal block INC INPUT + to 8+	1 MΩ AG AG: Analog circuit inte	Prnal GND I/O power supply + NX bus connector (right)
Installation orientation and restrictions	Installation orientation: • Connected to a CPU Unit: Possible in up • Connected to a Communications Couple Restrictions: No restrictions		ions.
Terminal connection diagram	24 VDC 00 00 00 00 00 00 00 00 00 00 00 00 00	Unit NX-AD4603 B1 A1 B1 DV Input1+ Input2+ OV IOG IOG OV Input3+ Input4+	Input + 24 V (Sensor power supply +) 0 V (Sensor power supply – / I Three-wire sensor
Input disconnection detection	Not supported.		

Analog Input Unit (voltage input type) 8 points NX-AD4603

		Medal	
Unit name	Analog Input Unit (voltage input type)	Model External connection	NX-AD4604
Number of points	8 points	terminals	Screwless clamping terminal block (16 terminals)
I/O refreshing method	Free-Run refreshing	Input method	Differential Input
	TS indicator AD4604	Input method Input range	Differential Input -10 to +10 V
	TS	Input conversion range	-5 to 105% (full scale)
		Absolute maximum	
Indicator		rating	±15 V
		Input impedance	1 MΩ min.
		Resolution	1/8000 (full scale)
		Overall 25°C accuracy 0 to 55°C	±0.2% (full scale) ±0.4% (full scale)
		Conversion time	250 μs/point
			Between the input and the NX bus: Power
Dimensions	12 (W) x 100 (H) x 71 (D)	Isolation method	= 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	No supply	Current capacity of I/O power supply terminal	Without I/O power supply terminals
NX Unit power consumption	 Connected to a CPU Unit 1.45 W max. Connected to a Communications Coupler Unit 1.15 W max. 	I/O current consumption	No consumption
Weight	70 g max.		
Circuit layout	Terminal block Input1+ to 8+ Input1- to 8- S 510 KΩ AG NX bus connector (left) I/O power supply +	AMP 510 KΩ AG AG: Analog circuit inte	rnal GND I/O power supply + NX bus connector (right)
Installation orientation and restrictions	Installation orientation: • Connected to a CPU Unit: Possible in up • Connected to a Communications Couple Restrictions: No restrictions		tions.
Terminal connection diagram		nput + nput –	
Input disconnection detection	Not supported.		

Analog Input Unit (voltage input type) 8 points NX-AD4604

Unit name	Analog Input Unit (voltage input type)	Model	NX-AD4608	
	Analog input onit (voltage input type)	External connection	Screwless clamping terminal block (16	
Number of points	8 points	terminals	terminals)	
I/O refreshing method	Selectable Synchronous I/O refreshing or Free-Run refreshing			
	TS indicator AD4608	Input method	Differential Input	
	AD4608 TS	Input range	-10 to +10 V	
		Input conversion range	-5 to 105% (full scale)	
Indicator		Absolute maximum rating	±15 V	
indicator		Input impedance	1 MΩ min.	
		Resolution	1/30000 (full scale)	
		Overall 25°C	±0.1% (full scale)	
		accuracy 0 to 55°C	±0.2% (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 $M\Omega$ 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	No supply	Current capacity of I/O power supply terminal	Without I/O power supply terminals	
NX Unit power consumption	 Connected to a CPU Unit 1.45 W max. Connected to a Communications Coupler Unit 1.15 W max. 	I/O current consumption	No consumption	
Weight	70 g max.			
Circuit layout	Terminal block Input1+ to 8+ Input1- to 8- S 510 KΩ AG AG	AMP 510 KΩ AG AG: Analog circuit inter	I/O power supply + NX bus connector I/O power supply – (right)	
Installation orientation and restrictions	Installation orientation: • Connected to a CPU Unit: Possible in up • Connected to a Communications Couple Restrictions: No restrictions		ions.	
Terminal connection diagram		nput + nput –		
Input disconnection detection	Not supported.			

Analog Input Unit (voltage input type) 8 points NX-AD4608

			1. N/ 1. B
Unit name	Analog Input Unit (current input type)	Model	NX-AD2203
Number of points	2 points	External connection terminals	Screwless clamping terminal block (8 terminals)
I/O refreshing method	Free-Run refreshing		
	TS indicator	Input method	Single-ended input
	AD2203	Input range	4 to 20 mA
		Input conversion range	-5 to 105% (full scale)
la dia stan		Absolute maximum rating	±30 mA
Indicator		Input impedance	250 Ω min.
		Resolution	1/8000 (full scale)
		Overall 25°C	±0.2% (full scale)
		accuracy 0 to 55°C	±0.4% (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 $M\Omega$ 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 1.25 W max. Connected to a Communications Coupler Unit 0.90 W max. 	I/O current consumption	No consumption
Weight	70 g max.		
Circuit layout	Terminal block INPUT + to 2+ IOG NX bus connector (left) I/O power supply + I/O power supply –	250 Ω AG AG: Analog circuit inte	Prnal GND I/O power supply + NX bus connector (right)
Installation orientation and restrictions	Installation orientation: • Connected to a CPU Unit: Possible in up • Connected to a Communications Couple Restrictions: No restrictions	oright installation. er Unit: Possible in 6 oriental	tions.
Terminal connection diagram	Additional I/O Power Supply Unit A1B1 ●IOV IOV 24 VDC IOV IOV IOG IOG IOG IOG A8B8		Input + 24 V (Sensor power supply +) 0 V (Sensor power supply – / Input –) wire sensor
Input disconnection detection	Supported.		

Analog Input Unit (current input type) 2 points NX-AD2203

		Medal	
Unit name	Analog Input Unit (current input type)	Model	NX-AD2204
Number of points	2 points	External connection terminals	Screwless clamping terminal block (8 terminals)
I/O refreshing method	Free-Run refreshing		
	TS indicator	Input method	Differential Input
	AD2204	Input range	4 to 20 mA
		Input conversion range	-5 to 105% (full scale)
Indicator		Absolute maximum rating	±30 mA
indicator		Input impedance	250 Ω min.
		Resolution	1/8000 (full scale)
		Overall 25°C accuracy 0 to 55°C	±0.2% (full scale)
			±0.4% (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	No supply	Current capacity of I/O power supply terminal	Without I/O power supply terminals
NX Unit power consumption	 Connected to a CPU Unit 1.25 W max. Connected to a Communications Coupler Unit 0.90 W max. 	I/O current consumption	No consumption
Weight	70 g max.		
Circuit layout	Terminal block Input1+ to 2+	510 KΩ \$ 510 KΩ AG: Anale AG	og circuit nal GND 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: No restrictions		
Terminal connection diagram	AG AG NC NC	ıput + ıput – d to 0 V of analog circuit inside the Ur e AG terminal normally.	iit.
Input disconnection detection	Supported.		

Analog Input Unit (current input type) 2 points NX-AD2204

		Model		
Unit name	Analog Input Unit (current input type)	Model External connection	NX-AD2208 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	Input method	Differential Input	
	AD2208	Input range	4 to 20 mA	
		Input conversion range	-5 to 105% (full scale)	
Indicator		Absolute maximum rating	±30 mA	
Indicator		Input impedance	250 Ω	
		Resolution	1/30000 (full scale)	
		Overall 25°C	±0.1% (full scale)	
		accuracy 0 to 55°C	±0.2% (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	No supply	Current capacity of I/O power supply terminal	Without I/O power supply terminals	
NX Unit power consumption	 Connected to a CPU Unit 1.25 W max. Connected to a Communications Coupler Unit 0.90 W max. 	I/O current consumption	No consumption	
Weight	70 g max.			
Circuit layout	Terminal block Input1+ to 2+ Input1- to 2- AG NX bus connector (left) I/O power supply + I/O power supply -	510 KΩ \$510 KΩ AG: Analinten	og circuit nal GND 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: No restrictions			
Terminal connection diagram	AG AG NC NC	iput + iput – d to 0 V of analog circuit inside the Ur e AG terminal normally.	nit.	
Input disconnection detection	Supported.			

Analog Input Unit (current input type) 2 points NX-AD2208

Unit name	Analog Input Unit (current input type)	Model	NX-AD3203
		External connection	Screwless clamping terminal block (12
Number of points	4 points	terminals	terminals)
I/O refreshing method	Free-Run refreshing		
	TS indicator	Input method	Single-ended input
	AD3203	Input range	4 to 20 mA
		Input conversion range	-5 to 105% (full scale)
Indiantar		Absolute maximum rating	±30 mA
Indicator		Input impedance	250 Ω min.
		Resolution	1/8000 (full scale)
		Overall 25°C	±0.2% (full scale)
		accuracy 0 to 55°C	±0.4% (full scale)
		Conversion time	250 μs/point
Dimonoiono	10 (M) × 100 (H) × 71 (D)	lociation method	Between the input and the NX bus: Power
Dimensions	12 (W) x 100 (H) x 71 (D)	Isolation method	= Transformer, Signal = Digital isolator (no isolation between inputs)
Insulation resistance	20 M Ω min. between isolated circuits (at	Dielectric strength	510 VAC between isolated circuits for 1
I/O power supply	100 VDC)	Current capacity of I/O	minute at a leakage current of 5 mA max. IOV: 0.1 A/terminal max.,
method	Supply from the NX bus	power supply terminal	IOG: 0.1 A/terminal max.
	Connected to a CPU Unit		
NX Unit power	1.25 W max.Connected to a Communications	I/O current consumption	No consumption
consumption	Coupler Unit		
Waight	0.90 W max.		
Weight	70 g max.		
Circuit layout	Terminal block Input1+ to 4+	AMP 250 Ω AG AG: Analog circuit inte	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: No restrictions		
Terminal connection diagram	Additional I/O Power Supply Unit A1 B1 IOV IOV 24 VDC IOV IOV IOG IOG A8 B8	Current Input Unit NX-AD3203 A Input1+ Input2+ IOV IOV IOG IOG Input3+ Input4+ IOV IOV IOG IOG A8 B8	Input + 24 V (Sensor power supply +) 0 V (Sensor power supply – / Input –) ire sensor
Input disconnection detection	Supported.		

Analog Input Unit (current input type) 4 points NX-AD3203

Unit name		Madal	
Unit name	Analog Input Unit (current input type)	Model	NX-AD3204
Number of points	4 points	External connection terminals	Screwless clamping terminal block (12 terminals)
I/O refreshing method	Free-Run refreshing		
	TS indicator	Input method	Differential Input
	AD3204 ■TS	Input range	4 to 20 mA
		Input conversion range	-5 to 105% (full scale)
Indicator		Absolute maximum rating	±30 mA
Indicator		Input impedance	250 Ω min.
		Resolution	1/8000 (full scale)
		Overall 25°C	±0.2% (full scale)
		accuracy 0 to 55°C	±0.4% (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 $M\Omega$ 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	No supply	Current capacity of I/O power supply terminal	Without I/O power supply terminals
NX Unit power consumption	 Connected to a CPU Unit 1.25 W max. Connected to a Communications Coupler Unit 0.90 W max. 	I/O current consumption	No consumption
Weight	70 g max.		
Circuit layout	Terminal block Input1+ to 4+ Solution AG NX bus connector (left) I/O power supply + I/O power supply -	510 KΩ \$510 KΩ AG: Analo	I/O power supply + NX bus connector I/O power supply – (right)
Installation orientation and restrictions	Installation orientation: • Connected to a CPU Unit: Possible in up • Connected to a Communications Couple Restrictions: No restrictions	oright installation. er Unit: Possible in 6 orientat	ions.
Terminal connection diagram	Input1- Input2- Input3+ Input4+ Input3- Input4- AG AG AG AG	nput + nput – d to 0 V of analog circuit inside the Ur re AG terminal normally.	iit.
Input disconnection detection	Supported.		
	1		

Analog Input Unit (current input type) 4 points NX-AD3204

Unit name	Analog Input Unit (current input type)	Model	NX-AD3208	
		External connection	Screwless clamping terminal block (12	
Number of points	4 points	terminals	terminals)	
I/O refreshing method	Selectable Synchronous I/O refreshing or Free-Run refreshing			
	TS indicator	Input method	Differential Input	
	AD3208 ■TS	Input range	4 to 20 mA	
		Input conversion range	-5 to 105% (full scale)	
		Absolute maximum rating	±30 mA	
Indicator		Input impedance	250 Ω min.	
		Resolution	1/30000 (full scale)	
		Overall 25°C	±0.1% (full scale)	
		accuracy 0 to 55°C	±0.2% (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	No supply	Current capacity of I/O power supply terminal	Without I/O power supply terminals	
NX Unit power consumption	 Connected to a CPU Unit 1.30 W max. Connected to a Communications Coupler Unit 0.95 W max. 	I/O current consumption	No consumption	
Weight	70 g max.			
Circuit layout	Terminal block Input1+ to 4+		og circuit nal GND 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: No restrictions			
Terminal connection diagram	Input1- Input2- Input3+ Input4+ Input3- Input4- AG AG AG AG	iput + iput – d to 0 V of analog circuit inside the U e AG terminal normally.	nit.	
Input disconnection detection	Supported.			

Analog Input Unit (current input type) 4 points NX-AD3208

Unit name		Model	NX-AD4203		
Unit name	Analog Input Unit (current input type)	External connection	Screwless clamping terminal block (16		
Number of points	8 points	terminals	terminals)		
I/O refreshing method	Free-Run refreshing				
	TS indicator	Input method	Single-ended input		
	AD4203	Input range	4 to 20 mA		
		Input conversion range	-5 to 105% (full scale)		
la dia sta a		Absolute maximum rating	±30 mA		
Indicator		Input impedance	85 Ω		
		Resolution	1/8000 (full scale)		
		Overall 25°C	±0.2% (full scale)		
		accuracy 0 to 55°C	±0.4% (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.		
NX Unit power consumption	 Connected to a CPU Unit 1.40 W max. Connected to a Communications Coupler Unit 1.05 W max. 		No consumption		
Weight	70 g max.				
Circuit layout	Terminal block IOV Input1+ to 8+ NX bus connector (left) I/O power supply + I/O power supply - NX bus connector				
Installation orientation and restrictions	Installation orientation: • Connected to a CPU Unit: Possible in up • Connected to a Communications Couple Restrictions: No restrictions		ions.		
Terminal connection diagram	Additional I/O Power Supply Unit A1 B1 B1 B1 B1 B1 B1 B1 B1 B1 B1 B1 B1 B1	NX-AD4203 B1 A1 B1 Input1+ Input2+● IOV IOV● Input3+ Input4+ IOV IOV Input3+ Input4+ IOV IOV Input5+ Input6+ IOV IOV Input7+ Input8+	Input + 24 V (Sensor power supply +) 0 V (Sensor power supply – / Input –) ee-wire Sensor		
Input disconnection detection	Supported.				
	1				

Analog Input Unit (current input type) 8 points NX-AD4203

Unit name	Angles (nout) (nit (ourrent input type)	Madal		NX AD4004	
Unit name	Analog Input Unit (current input type)	Model External or	onnaction	NX-AD4204 Screwless clamping terminal block (16	
			terminals)		
•	Free-Run refreshing	Input meth		B	
	TS indicator			Differential Input	
	AD4203 ■TS	Input rang		4 to 20 mA	
		Absolute r	version range	-5 to 105% (full scale)	
		rating	naximum	±30 mA	
Indicator		Input impe	dance	85 Ω	
		Resolution	ı	1/8000 (full scale)	
		Overall	25°C	±0.2% (full scale)	
		accuracy	0 to 55°C	±0.4% (full scale)	
		Conversio	n time	250 μs/point	
Dimensions	12 (W) x 100 (H) x 71 (D)	Isolation n	nethod	Between the input and the NX bus: Power = Transformer, Signal = Digital isolator (no isolation between inputs)	
	20 $M\Omega$ 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	No supply		pacity of I/O	Without I/O power supply terminals	
NX Unit power consumption	 Connected to a CPU Unit 1.40 W max. Connected to a Communications Coupler Unit 1.05 W max. 	I/O current consumption		No consumption	
Weight	70 g max.				
Circuit layout	$\begin{array}{c c} & \text{Terminal block} & \text{Input1+ to 8+} \\ \hline \text{Terminal block} & \text{Input1- to 8-} \\ \hline \text{Input1- to 8-} \\ \hline \text{S510 K\Omega} \\ \hline \text{AG} \\$				
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	Current Input Unit NX-AD4204 A1B1 Input1+ Input2+ Input3+ Input4+ Input3+ Input4+ Input5+ Input6+ Input5+ Input6- Input7+ Input8+ Input7- Input8- B8				
Input disconnection detection	Supported.				

Analog Input Unit (current input type) 8 points NX-AD4204

Number of points 8 points External connection terminals Screwless clamping terminal block (16 terminals) VO refreshing method Selectable Synchronous I/O refreshing or Free-Run refreshing Input method Differential Input Indicator A04203 -15 Ts indicator A04203 -15 Input mange 4 to 20 mA Input mange 4 to 20 mA Indicator A04203 -15 Ts indicator A04203 Input mange 4 to 20 mA Input mange -5 to 105% (full scale) -300 m(full scale) Indicator A04203 Input mange -5 to 105% (full scale) A04203 Input remeder B5 (2 +0.01% (full scale) -30 mA Input method -10 (full scale) Input impedance B5 (2 +0.01% (full scale) -30 mA Input impedance -10 (full scale) Dimensions 12 (W) x 100 (H) x 71 (D) Isolation method -10 (full scale) Input impedance -10 (full scale) -17 (full scale) Insulation resistance 20 MQ min. between isolated circuits (at 100 VDC) Dielectric strengthy Without I/O power supply terminals NX Unit power consumption - Connected to a Communications Conject full a Communications Conject full a Communications Conject full a Communications Connected to a Communications Couplet Unit 1.45 W max. A0 Analog droat internal GND I/O power	J 1	· · · · · · ·					
Number of points a points a points terminals terminals terminals VO refreshing method Selectable Synchronous I/O refreshing of Free-Run refreshing Differential Input Input method Differential Input Indicator AD4203 Input method Differential Input Input range 41 40 20 mA Indicator AD4203	Init name	Analog Input Unit (current input type)	Analog Input Unit (current input type) Model I				
Indicator Input method Differential Input Indicator AD4203 Indicator Input ange 5 to 105% (full scale) Absolute maximum 430 mA Input inpedance 85 Ω Resolution 173000 (full scale) Overall 25°C 40 4203 10 55°C 10 40 mR 10 power supply Dimensions 12 (W) x 100 (H) x 71 (D) Insulation resistance 20 MΩ min. between isolated circuits (at on VDC) 10 power supply Current capacity of VO power supply induced to a CPU Unit 1.45 W max. Vonewer consumption • Connected to a CPU Unit 1.45 W max. 1.10 W max. 70 g max. Weight 70 g max. Installation orientation and restrictions • Connected to a CPU Unit 1.40 # Ada	lumber of points	s 8 points					
Indicator Input range 4 to 20 mA Input conversion range -5 to 105% (full scale) Absolute maximum -30 mA Input impedance -65 Ω Resolution 1/30000 (full scale) Overall 25°C -0.7% (full scale)	O refreshing method	sthod Selectable Synchronous I/O refreshing or F	Free-Run refreshing				
Indicator Imput conversion range -5 to 105% (full scale) Absolute maximum ±30 mA Input impedance 85 Ω Resolution -100000 (full scale) Overall 25°C accuracy 0 to 55°C 0 to 55°C ±0.2% (full scale) Conversion time 10 µs/point Dimensions 12 (W) x 100 (H) x 71 (D) Insulation resistance 20 MQ min. between isolated circuits (at 100 VDC) Insulation resistance 20 MQ min. between isolated circuits (at 100 VDC) Ioo vDC) Isolation method Sint VAC between isolated circuits (at 100 VDC) Delectric strength Mo vDC) Current capacity of I/O power supply terminal VO power supply No supply Circuit layout Connected to a CPU Unit 1.45 W max. Connected to a Communications Caupler Unit 1.10 W max. V/O gower supply = Installation orientation: Nt bas (Input1+ to 8+ (Input1+ to 8+<th></th><th></th><th></th><th></th>							
Indicator Imput Solution range > 50 100% (full scale) Indicator 30 mA Input impedance 85 Ω Resolution 1/30000 (full scale) Overall 25°C Dimensions 12 (W) x 100 (H) x 71 (D) Isolation method Eleven the input and the NX bus: Poistic scale (Input and the NX bus: Poistic scale) Conversion time 10 µs/point Between the input and the NX bus: Poistic scale (Input and the NX bus: Poistic scale) = Transformer, Signal = Digital isolator Insulation resistance 20 MΩ min. between isolated circuits (at 100 VDC) Dielectric strength 510 VAC between sicolated circuits for minute at a leakage current of 5 mA m mothed If op over supply No supply Current consumption Without I/O power supply terminals NX Unit power consumption • Connected to a CPU Unit 1.145 W max. • Connected to a CPU Unit 1.145 W max. • Connected to a CPU Unit 1.16 W max. Veight 70 g max. • Connected to a CPU Unit 1.16 W max. • O power supply terminal 0.00 Power supply = 0.00							
Indicator rating ±30 mA Input impedance 85 Ω Resolution 1/30000 (full scale) Overall 25°C ±0.1% (full scale) accuracy 0 to 55°C ±0.2% (full scale) conversion time 10 µs/point Dimensions 12 (W) x 100 (H) x 71 (D) Isolation method Etween the input and the NX bus: Portisolation between isolated circuits (at 100 VDC) Insulation resistance 20 MΩ min. between isolated circuits (at 100 VDC) Dielectric strength 510 VAC between isolated circuits for minute at a leakage current of 5 mA m I/O power supply No supply Current capacity of I/O power supply terminals NX Unit power consumption • Connected to a CPU Unit 1.4 W max. VO current consumption No consumption NX Unit power (consumption interval block Input to 8 - 4 - 4 - 4 - 4 - 4 - 4 - 4 - 4 - 4 -				-5 to 105% (full scale)			
Imput impedance B 51 Resolution 1/30000 (full scale) Overall 25°C ±0.1% (full scale) accuracy 0 to 55°C ±0.2% (full scale) Conversion time 10 µs/point Between the input and the NX bus: Point Insulation resistance 20 MΩ min. between isolated circuits (at 100 VDC) Isolation method Insulation resistance 20 MΩ min. between isolated circuits (at 100 VDC) Delectric strength VO power supply No supply Current capacity of VO power supply terminal VO power supply Connected to a CPU Unit 1.45 W max. Connected to a CPU Unit 1.45 W max. Veight 70 g max. Veight 70 g max. Insulation orientation and restrictions Installation orientation and restrictions Installation orientation and restrictions Installation orientation and restrictions Installation orientation and restrictions	adiaatar			±30 mA			
Overall accuracy 25°C 0 to 55°C ±0.1% (full scale) Dimensions 12 (W) x 100 (H) x 71 (D) Isolation method 10 µs/point Insulation resistance 20 MΩ min. between isolated circuits (at 100 VDC) Delectric strength 510 VAC between isolated circuits (at 100 VDC) VO power supply method No supply Current capacity of I/O power supply terminal Without I/O power supply terminals NX Unit power consumption • Connected to a CPU Unit 1.45 W max. • Connected to a COPU Unit 1.10 W max. VO current consumption No consumption Veight 70 g max. Imputi- to 8- (Inputi- t	lucator		Input impedance				
Dimensions 12 (W) × 100 (H) × 71 (D) Isolation method Between the input and the NX bus: Portion time Dimensions 12 (W) × 100 (H) × 71 (D) Isolation method Between the input and the NX bus: Portion time Insulation resistance 20 MΩ min. between isolated circuits (at 100 VDC) Delectric strength Between the input and the NX bus: Portion isolated circuits for minute at a leakage current of 5 mA m. I/O power supply No supply Current capacity of I/O power supply terminals NX Unit power consumption • Connected to a CPU Unit 1.45 W max. I/O current consumption No consumption • Connected to a Communications Coupler Unit 1.45 W max. I/O current consumption No to g max. • Connected to a Communications Coupler Unit 1.10 W max. I/O current consumption No to supply Imputite to 8+ • for K \$ 510 KΩ \$ 00 wer supply + 100 power supply							
Cinversion time 10 μs/point Dimensions 12 (W) x 100 (H) x 71 (D) Isolation method Between the input and the NX bus: Porticity of isolation between isolated circuits (at 100 VDC) Insulation resistance 20 MΩ min. between isolated circuits (at 100 VDC) Dielectric strength S10 VAC between isolated circuits for minute at a leakage current of 5 mA m VO power supply method No supply Current capacity of V/O power supply terminal Without I/O power supply terminal NX Unit power consumption • Connected to a CPU Unit 1.45 W max. 0.45 W max. VO current consumption No consumption • Connected to a Communications Coupler Unit 1.10 W max. VO current consumption No consumption Veight 70 g max. Terminal block Input1+ to 8+ AG AG Nx bus [Input1+ to 8+ Input1+ to 8+ Input1+ to 8+ AG AG Nx bus [Input1+ to 8+ [Input1+ to 8+ I/O power supply + I/O power supply + I/O power supply + Nx bus [I/O power supply - [I/O power supply + [I/O power supply + I/O power supply + I/O power supply + Installation orientation: • Connected to a CPU Unit: Possible in upright installation. • Connected to a CPU Unit: Possible in up							
Dimensions 12 (W) x 100 (H) x 71 (D) Isolation method Between the input and the NX bus: Point isolation between inputs) Insulation resistance 20 MΩ min. between isolated circuits (at 100 VDC) Dielectric strength 510 VAC between isolated circuits for minute at a leakage current of 5 mA m I/O power supply method No supply Current capacity of I/O power supply terminal Without I/O power supply terminal NX Unit power consumption • Connected to a CPU Unit 1.45 W max. • Connected to a CPU Unit 1.10 W max. • Connected to a CPU Unit 1.10 W max. Weight 70 g max. • Connected to a CPU Unit 1.10 W max. • Connected to a CPU Unit 1.10 W max. • Connected to a CPU Unit 1.10 W max. Weight 70 g max. • Connected to a CPU Unit 1.10 W max. • Connected to a CPU Unit 1.10 W max. • Connected to a CPU Unit 1.10 W max. No supply • Connected to a CPU Unit 1.0 B + 0.00 M max. • 0.00 M max. • 0.00 M max. Weight 70 g max. • 0.00 M mersupply + 0.00 M max. • 0.00 M max. Installation orientation and restrictions • 0.00 power supply - 0.00 M m m • 0.00 M m m m m m m m m m m m m m m m m m m							
Dimensions 12 (W) x 100 (H) x 71 (D) Isolation method = Transformer, Signal = Digital isolator isolation between inputs) Insulation resistance 20 MΩ min. between isolated circuits (at 100 VDC) Dielectric strength S10 VAC between isolated circuits for minute at a leakage current of 5 mA m. I/O power supply method No supply Current capacity of I/O power supply terminal Without I/O power supply terminals NX Unit power consumption • Connected to a CPU Unit 1.45 W max. I/O current consumption No consumption Veight 70 g max. Input1+ to 8+ I/O power supply + 1.10 W max. No consumption Circuit layout NX bus (Input1+ to 8+ Input1+ to 8+ Input1+ to 8+ Input1+ to 8+ NX bus (inf) Input1+ to 8+ Input1+ to 8+ Input1+ to 8+ Input1+ to 8+ NX bus (inf) INV bus (inf) INV bus (inf) INV bus (inf) INV bus (inf) NX bus (inf) INV bus (inf) Installation orientation: • Connected to a CPU Unit: Possible in upright installation. • Connected to a CPU Unit: Possible in 6 orientations. • Connected to a CPU Unit: Possible in 6 orientations. Restrictions: No restrictions I/O com			Conversion time				
Installation resistance 100 VDC) Delectric strength minute at a leakage current of 5 mA minute at a leakage current log to a CPU Unit 1.45 W max. Weight 70 g max. Installation orientation: Installation orientation: Installation orientation: Installation. Installation orientation: • Connected to a CPU Unit: Possible in upright installation. • Connected to a Communications Coupler Unit: Possible in 6 orientations. <th>Dimensions</th> <th>12 (W) x 100 (H) x 71 (D)</th> <th>Isolation method</th> <th>= Transformer, Signal = Digital isolator (no</th>	Dimensions	12 (W) x 100 (H) x 71 (D)	Isolation method	= Transformer, Signal = Digital isolator (no			
method No supply power supply terminal Without I/O power supply terminal NX Unit power consumption Connected to a CPU Unit 1.45 W max. Connected to a Communications Coupler Unit 1.10 W max. Weight 70 g max. Inputite to 8+ Inputite to 8+	nsulation resistance		Dielectric strength	510 VAC between isolated circuits for 1 minute at a leakage current of 5 mA max.			
NX Unit power consumption 1.45 W max. V/O current consumption No consumption Connected to a Communications Coupler Unit 1.10 W max. V/O current consumption No consumption Weight 70 g max. Terminal block Input1+ to 8+ Imput1+ to 8+ Imput1+ to 8+ Circuit layout Imput1+ to 8+ NX bus connector Imput1+ to 8+ Imput1+ to 8+ Imput1+ to 8+ Imput1+ to 8+ NX bus connector Imput1+ to 8+ Imput1+ to 8+ Imput1+ to 8+ Imput1+ to 8+ NX bus connector Imput1+ to 8+ Imput1+ to 8+ Imput1+ to 8+ Imput1+ to 8+ NX bus connector Imput1+ to 8+ Imput1+ to 8+ Imput1+ to 8+ Imput1+ to 8+ NX bus connector Imput1+ to 8+ Imput1+ to 8+ Imput1+ to 8+ Imput1+ to 8+ NX bus connector I/O power supply + I/O power suppl		No supply		Without I/O power supply terminals			
Circuit layout Input1+ to 8+ Input1+ to 8+ Installation orientation and restrictions I/O power supply + I/O power supply + Installation orientation Installation orientation: • Connected to a CPU Unit: Possible in upright installation. • Connected to a CPU Unit: NX-AD4208 • Connected to a CPU Unit: NX-AD4208 • Connected to a Communications Coupler Unit: Possible in 6 orientations.		1.45 W max.Connected to a Communications Coupler Unit	I/O current consumption	No consumption			
Circuit layout 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 Installation orientation: • Connected to a CPU Unit: Possible in 0 orientation: • Connected to a Communications Coupler Unit: Possible in 6 orientations. • Connected to a Communications Coupler Unit: Possible in 6 orientations. Installation orientation: • Connected to a CPU Unit: Possible in 0 orientation. • Connected to a Communications Coupler Unit: Possible in 6 orientations. • Connected to a Communications Coupler Unit: Possible in 6 orientations. Installation orientation: • Connected to a Communications Coupler Unit: Possible in 6 orientations. • Connected to a Communications Coupler Unit: Possible in 6 orientations. Installation orientation: • Current Input Unit NX-AD4208 A1B1	Veight	70 g max.					
Installation orientation and restrictions • Connected to a CPU Unit: Possible in upright installation. • Connected to a Communications Coupler Unit: Possible in 6 orientations. Restrictions: No restrictions Image: Current Input Unit NX-AD4208 Image: Current Input Unit NX-AD4208	Circuit layout	Terminal block Input1- to 8- NX bus connector	Terminal block Input1- to 8-				
		Connected to a CPU Unit: Possible in up Connected to a Communications Couple	 Connected to a CPU Unit: Possible in upright installation. Connected to a Communications Coupler Unit: Possible in 6 orientations. 				
Terminal connection diagram		NX-AD4208 A1 B1 Input1+ Input2+● Input1- Input2-● Input3+ Input4+ Input5+ Input6+ Input7+ Input8+ Input7- Input8+					
Input disconnection Supported.		ion Supported.					

Analog Input Unit (current input type) 8 points NX-AD4208

Analog Output Unit Specifications

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

Unit name	Analog Output Unit (voltage output type)	Model	NX-DA2603		
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	-10 to +10 V		
	DA2603	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. 	I/O current consumption	No consumption		
Weight	70 g max.				
Circuit layout	NX bus connector (left) I/O power supply + I/O power supply –	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 00V 10V 24 VDC				

Unit name	Analog Output Unit (voltage output type)	Model	NX-DA2605	
Unit name			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 kΩ 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 40 W max. Connected to a Communications			
Weight	70 g max.			
Circuit layout	NX bus connector (left) I/O power supply + I/O power supply - I/O powe			
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 OV IOV 24 VDC IOV IOV IOV IOV A8 B8 B8 A	Voltage Output Unit NX-DA2605	Voltage output +	

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

		-			
Unit name			NX-DA3603		
Number of points	4 points	External connection terminals	Screwless clamping terminal block (12 terminals)		
I/O refreshing method	Free-Run refreshing				
	TS indicator	Output range	-10 to +10 V		
	DA3603 ■TS	Output conversion range	-5 to 105% (full scale)		
		Allowable load resistance	5 k Ω min.		
Indicator		Output impedance	0.5 Ω max.		
		Resolution	1/8000 (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 .35 W max. Connected to a Communications Coupler Unit .25 W max. 	No consumption			
Weight	70 g max.				
Circuit layout	NX bus connector (left) I/O power supply - I/O powe				
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 A	Voltage Output Unit NX-DA3603 1 B1 1 V1+ V2+ • 1 OV IOV 1 OG IOG • V3+ V4+ 1 OV IOV 1 OG IOG 1 OG IOG	Voltage output +		

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

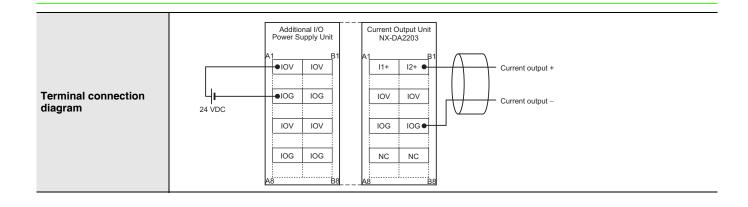
		N		
Unit name			NX-DA3605	
Number of points	4 points	External connection terminals Screwless clamping terminal block (12 terminals)		
I/O refreshing method	Selectable Synchronous I/O refreshing or F	-		
	TS indicator	Output range	-10 to +10 V	
	DA3605	Output conversion range	-5 to 105% (full scale)	
		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. 	No consumption		
Weight	70 g max.			
Circuit layout	NX bus connector (left) I/O power supply -	it internal GND AG	IOV Output V1+ to V4+ 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: 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 A	Voltage Output Unit NX-DA3605 1 V1+ V2+ 10V 10V 10G 10G V3+ V4+ 10V 10V 10G 10G 8 B8	Voltage output + 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	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. 	0 W max. nnected to a Communications upler Unit			
Weight	70 g max.				
Circuit layout	NX bus connector (left) I/O power supply + I/O power supply - NX bus connector (left) I/O power supply - I/O power su				
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. (0) (0) (0) (0) (0) (0) (0) (0)				

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

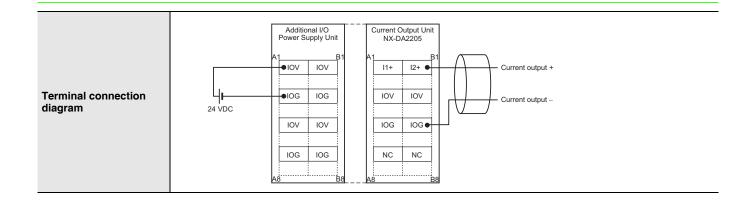
NX-AD/DA



Analog Output Unit (current output type)	Model	NX-DA2205		
2 nointe		NX-DA2205		
2 points	External connection terminals	Screwless clamping terminal block (8 terminals)		
Selectable Synchronous I/O refreshing or F	ree-Run refreshing			
TS indicator	Output range	4 to 20 mA		
DA2205 ■TS	Output conversion range	-5 to 105% (full scale)		
	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		
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)		
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.		
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.		
 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 				
70 g max.				
NX bus connector (left) I/O power supply + I/O power supply - I/O power supply -				
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. () () () () () () () () () ()				
	Selectable Synchronous I/O refreshing or F TS indicator DA2205 TS indicator DA2205 TS TS TS TS TS TS TS TS TS TS	Selectable Synchronous I/O refreshing or Free-Run refreshing TS indicator DA2205 • TS • TS		

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

NX-AD/DA



Unit name	Analog Output Linit (ourrent output type)	Model	NX-DA3203		
Unit name	Analog Output Unit (current output type)	External connection	Screwless clamping terminal block (12		
Number of points			terminals)		
I/O refreshing method	Free-Run refreshing	1			
	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 $M\Omega$ 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. 	ations I/O current consumption No consumption			
Weight	70 g max.				
Circuit layout	AG: Analog circuit connector (left) I/O power supply –	internal GND AG	IOV Output 11+ to 14+ 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. • (0) • (0)				

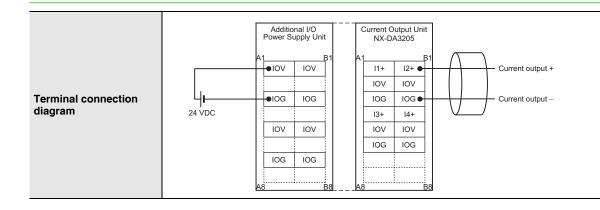
Analog Output Unit (current output type) 4 points NX-DA3203

NX-AD/DA

Terminal connection diagram	Additional I Power Supply A1 I I I I I I I I I I I I I I I I I I I	Unit NX-DA3203 B1 A1 B1 V I1+ I2+ I IOV IOV IOG IOG I I3+ I4+ V IOV IOV IOG IOG G	Current output + Current output –	
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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	Free-Run ref	reshing		
	TS indicator	Output range 4 to 20 mA			
	DA3205 ■TS	Output cor range	nversion	-5 to 105% (full scale)	
Indicator		Allowable resistance		350 Ω min.	
		Resolution	ו	1/30000 (full scale)	
		Overall	25°C	±0.1% (full scale)	
		accuracy	0 to 55°C	±0.3% (full scale)	
		Conversio	n time	10 μs/point	
Dimensions	12 (W) x 100 (H) x 71 (D)	Isolation n	nethod	Between the input and the NX bus: Power = Transformer, Signal = Digital isolator (no isolation between inputs)	
Insulation resistance	20 $M\Omega$ 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		pacity of I/O	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 + I/O power supply - NX bus connector I/O power supply - NX bus connector				
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. (0) (0) (0) (0) (0) (0) (0) (0)				

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



Version Information

Connected to a CPU Unit

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

NX U	nit	Corresponding versions *		
Model Unit version		CPU Unit	Sysmac Studio	
NX-AD	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.

Connected to a Communications Coupler Unit

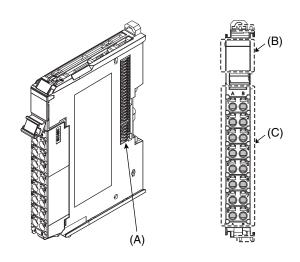
NX Unit		Corresponding versions *				
	Unit		EtherCAT	EtherNet/IP		
Model	version	Communications Coupler Unit	NJ/NX-series CPU Unit or NY-series Industrial PC Sysmac Studio		Communications Coupler Unit	Sysmac Studio
NX-AD	Ver.1.0	Ver.1.0 or later	Ver.1.05 or later	Ver.1.06 or higher	Ver.1.0 or later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

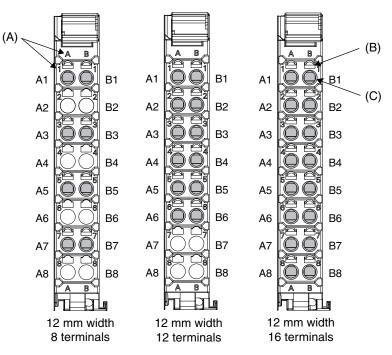
Screwless Clamping Terminal Block Type

12 mm Width



Letter	Item	Specification			
(A)	NX bus connector	This connector is used to connect to another Unit.			
(B)	Indicators	The indicators show the current operating status of the Unit.			
(C)	Terminal block	The terminal block is used to connect to external devices. The number of terminals depends on the Unit.			

Terminal Blocks



Letter	Item	Specification
(A)	Terminal number indication	The terminal number is identified by a column (A through D) and a row (1 through 8). Therefore, terminal numbers are written as a combination of columns and rows, A1 through A8 and B1 through B8. The terminal number indication is the same regardless of the number of terminals on the terminal block.
(B)	Release hole	A flat-blade screwdriver is inserted here to attach and remove the wiring.
(C)	Terminal hole	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-AD2	NX-TBA082	8	A/B	None	10 A			
NX-AD3	NX-TBA122	12	A/B	None	10 A			
NX-AD4	NX-TBA162	16	A/B	None	10 A			
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.

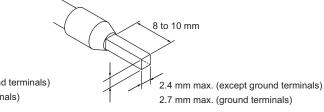
The applicable ferrules, wires, and crimping tool are given in the following table.

Terminal type	Manufacturer	Ferrule model	Applicable wire (mm ² (AWG))	Crimping tool			
Terminals other			0.34 (#22)	Phoenix Contact (The figure in parentheses is the applicable wire size.)			
than ground		AI0,5-8	0.5 (#20)	CRIMPFOX 6 (0.25 to 6 mm ² , AWG24 to 10)			
terminals		Al0,5-10					
		Al0,75-8	0.75 (#18)				
		Al0,75-10					
		AI1,0-8	1.0 (#18)				
		AI1,0-10					
		AI1,5-8	1.5 (#16)				
Ground terminals		Al2,5-10	2.0 *				
Terminals other	Weidmuller	H0.14/12	0.14 (#26)	Weidmuller (The figure in parentheses is the applicable wire size.)			
than ground terminals		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	1				
		H0.75/14	0.75 (#18)				
		H0.75/16	1				
		H1.0/14	1.0 (#18)				
		H1.0/16					
		H1.5/14	1.5 (#16)				
		H1.5/16					

* 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					O
		Twisted wires		Solid wire		Wire size	Conductor length (stripping length)
Classification	Current capacity	Plated	Unplated	Plated	Unplated		(empping length)
	2 A or less	Possible	Possible	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		Not	Possible *1	Not		
ground terminals	Greater than 4 A	Possible *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)

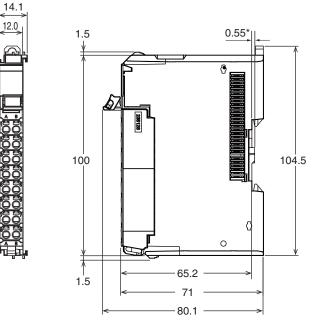
<Additional Information> If more than 2 A will flow on the wires, use plated wires or use ferrules.

(Unit/mm)

Dimensions

Screwless Clamping Terminal Block Type

12 mm Width



* The dimension is 1.35 mm for Units with lot numbers through December 2014.

Related Manual

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

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