# 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<sup>®</sup> 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  $\mu s$  per channel and high resolution of 1/30,000
- Single-ended input type with built-in power supply terminals for low power equipments or noize-resistant differential input type (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<sup>™</sup> bus coupler

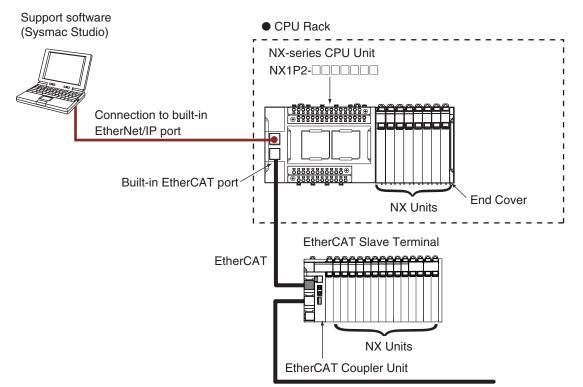
Sysmac is a trademark or registered trademark of OMRON Corporation in Japan and other countries for OMRON factory automation products. EtherCAT<sup>®</sup> is a registered trademark and patented technology, licensed by Beckhoff Automation GmbH, Germany. EtherNet/IP<sup>™</sup> is a trademark of ODVA.

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# **System Configurations**

#### Connected to a CPU Unit or Communication Control Unit

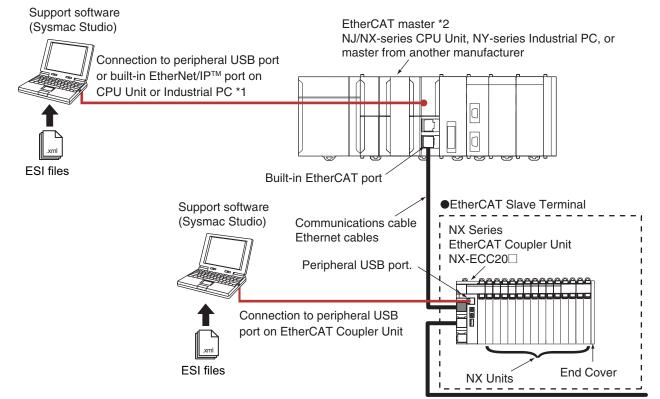
The following figure shows a system configuration when NX Units are connected to an NX-series CPU Unit.



Note: For whether an NX Unit can be connected to the CPU Unit, refer to the version information.

### 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.

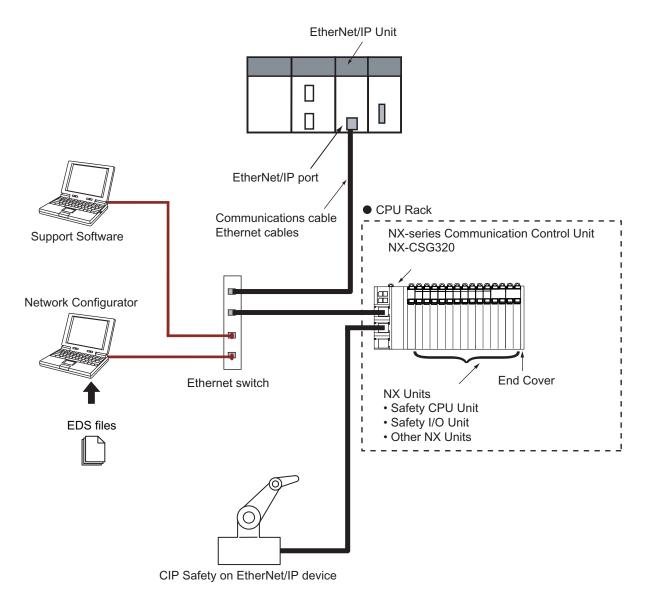


- \*1. The connection method for the Sysmac Studio depends on the model of the CPU Unit or Industrial PC.
- \*2. An EtherCAT Slave Terminal cannot be connected to any of the OMRON CJ1W-NC 81/82 Position Control Units even though they can operate as EtherCAT masters.

Note: For whether an NX Unit can be connected to the Communications Coupler Unit, refer to the version information.

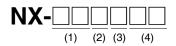
#### System Configuration in the Case of a Communication Control Unit

The following figure shows a system configuration when a group of NX Units is connected to an NX-series Communication Control Unit. To configure a Safety Network Controller, mount the Safety CPU Unit, which is one of the NX Units, to the CPU Rack of the Communication Control Unit.



Note: For whether an NX Unit can be connected to the Communication Control Unit, refer to the version information.

## **Model Number Structure**



#### (1) Unit type

<u>`</u>	,	
	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

(-) 5-					
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 refreshing \*2 Synchronous I/O refreshing

# **Ordering Information**

#### Applicable standards

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 Units**

		1	1	1	Specificat	ion		1		
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
					±0.2%	Single-ended input	250 μs/		Free-Run	NX-AD2603
			1/8000	-4000 to 4000	(full scale)	Differential input	point		refreshing	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 type					±0.2%	Single-ended input	250 μs/		Free-Run	NX-AD3603
		-10 to	1/8000	-4000 to 4000	(full scale)	Differential input	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 Selectable Synchronous I/O refreshing or Free-Run refreshing	NX-AD3608	
			1/8000	-4000 to 4000	±0.2% (full scale)	Single-ended input	250 μs/			NX-AD4603
						Differential input	point			NX-AD4604
	8 points		1/30000	-15000 to 15000	±0.1% (full scale)	Differential	10 μs/ point		Synchronous I/O refreshing or Free-Run	NX-AD4608
			1/2022	0 to 8000	±0.2%	Single-ended input	250 μs/	- 250 Ω	Free-Run	NX-AD2203
	2 points	4 to 20 mA	1/8000		(full scale)	Differential	point		refreshing	NX-AD2204
			1/30000	0 to 30000	±0.1% (full scale)	Differential input	10 μs/ point		Selectable Synchronous I/O refreshing or Free-Run refreshing	NX-AD2208
Current Input type			1/0000	0.4- 0000	±0.2%	Single-ended input	250 μs/	200 32	Free-Run refreshing	NX-AD3203
			1/8000	0 to 8000	(full scale)	Differential input	point			NX-AD3204
			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			±0.2%	Single-ended input	250 μs/		Free-Run	NX-AD4203
			1/8000	0 to 8000	±0.2% (full scale)	Differential	point		refreshing	NX-AD4204
	8 points		1/30000	0 to 30000	±0.1% (full scale)	Differential	10 μs/ point	85 Ω	Selectable Synchronous I/O refreshing or Free-Run refreshing	NX-AD4208

# Analog Output Units

	Specification							
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
Voltage Output type			1/8000	-4000 to 4000	±0.3% (full scale)	250 μs/point	Free-Run refreshing	NX-DA2603
	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
			1/30000	-15000 to 15000	±0.1% (full scale)	10 μs/point	Selectable Synchronous I/O refreshing or Free- Run refreshing	NX-DA3605
Current Output type	2 points	4 to 20 mA	1/8000	0 to 8000	±0.3% (full scale)	250 μs/point	Free-Run refreshing	NX-DA2203
			1/30000	0 to 30000	±0.1% (full scale)	10 μs/point	Selectable Synchronous I/O refreshing or Free- Run refreshing	NX-DA2205
	4 points		1/8000	0 to 8000	±0.3% (full scale)	250 μs/point	Free-Run refreshing	NX-DA3203
			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				
Unit/Terminal Block Coding Pins	For 10 Units (Terminal Block: 30 pins,	or 10 Units "erminal Block: 30 pins, Unit: 30 pins)				
	Specification					
Product name	No. of terminals	Terminal number indications	Ground terminal mark	Terminal current capacity	Model	
	8		None		NX-TBA082	
Terminal Block	12	A/B		10 A	NX-TBA122	
	16	1			NX-TBA162	

#### Accessories

Not included.

# **General Specifications**

	Item	Specification		
Enclosure		Mounted in a panel		
Grounding m	ethod	Ground to 100 $\Omega$ 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: Meets IEC 61010-2-201.		
Operating environment	Noise immunity	2 kV on power supply line (Conforms to IEC61000-4-4.)		
environment	Overvoltage category	Category II: Meets IEC 61010-2-201.		
	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 <sup>2</sup> , 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 <sup>2</sup> , 3 times each in X, Y, and Z directions		
Applicable standards *		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			
	∎TS	Input conversion range	-5 to 105% (full scale)			
		Absolute maximum rating	±15 V			
Indicator		Input impedance	1 M $\Omega$ 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: Powe = 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	<ul> <li>Connected to a CPU Unit or Communication Control Unit 1.35 W max.</li> <li>Connected to a Communications Coupler Unit 1.05 W max.</li> </ul>	I/O current consumption	No consumption			
Weight	70 g max.					
Circuit layout	Terminal block IOV Terminal block Input1+ to 2+ IOG NX bus connector (left) I/O power supply + I/O power supply –	AG AG: Analog circuit ir	I/O power supply + NX bus connector I/O power supply – (right)			
Installation orientation and restrictions	Installation orientation: • Connected to a CPU Unit or Communic • Connected to a Communications Couple Restrictions: No restrictions					
Terminal connection diagram	Additional I/O Power Supply Unit A1 B1 I OV IOV 24 VDC A8 B8 C		Input + 24 V (Sensor power supply +) 0 V (Sensor power supply – / Input –) e-wire sensor			
Input disconnection	Not supported.					

Number of points         2 points         External connection terminals         Screwless clamping terminal block (8 terminals)           I/O refreshing method         Free-Run refreshing         Input method         Differential Input           Indicator         AD2604         Input method         Differential Input           Indicator         AD2604         Input range         -10 to +10 V           Input conversion range         -5 to 105% (full scale)         Absolute maximum rating           Input impedance         1 MΩ min.         18000 (full scale)           Overall accuracy         25°C         ±0.2% (full scale)           Overall accuracy         10 to 55°C         ±0.4% (full scale)           Dimensions         12 (W) x 100 (H) x 71 (D)         Isolation method         Between the input and the NX bus: Pow = Transformer, Signal = Digital isolator (isolation between inputs)			· ·	[				
Number of points     2 points     2 points     eminates       VO refreshing method     Fee: Run refreshing     Input method     Differential Input       Indicator     TS indicator     Input method     Input correction range     Is to IdSS (full scale)       Indicator     Input method     Input correction range     Is to IdSS (full scale)       Absolute maximum     at15 V       Ingut correction 170000 (full scale)     Conversion range     Is to IdSS (full scale)       Overall     25 °C     ad.9% (full scale)       Overall     25 °C     ad.9% (full scale)       Insulation resistance     20 M2 min. between isolated circuits (at 100 VDC)     Isolation method     Between the inputs)       Insulation resistance     20 M2 min. between isolated circuits (at 100 VDC)     Isolation method     Between the inputs)       Vo power supply     No supply     Current capacity of VO power supply terminal     Without VD power supply terminals       VO power supply     No consumption     No consumption     No consumption       Visual     Tog grax.     VO grant supply     VO power supply = Note:       Weight     70 grax.     Imput 1 is 2     Imput 1 is 2       Termination orientation     Insulation orientation:     Oconnected to a CPU Unit or Communication Control Unit 1.05 W max.       Visual     VD graver supply     Imp	Unit name	Analog Input Unit (voltage input type)	Model					
Indicator     TS indicator       AD25001     AD25001       AD25001     AD25001       AD25001     AD25001       Input conversion range     5 to 105% (full scale)       AD25001     AD25001       Input conversion range     5 to 105% (full scale)       AD25001     Input conversion range     5 to 105% (full scale)       AD25001     Input conversion range     5 to 105% (full scale)       AD25001     Input conversion range     5 to 105% (full scale)       Dimensions     12 (W) x 100 (H) x 71 (D)     Isolation method     Between the input and the NX bus: Portion of the OX bus: Portion random registry       Insulation resistance     20 M2 min. between isolated circuits (at 100 VCC)     Dielectric strength     50 vCC between isolated circuits for 1 minute at a leakage current of 5 mA method       Insulation resistance     0 connected to a CPU Unit or 1 conmunication Control Unit 1 to 2 W max.     Connected to a CPU Unit or 1 to 2 W max.       VD gover supply     • Connected to a CPU Unit or 1 to 2 W max.     Wo consumption       VB grant     • Connected to a CPU Unit or 1 to 2 W max.     Wo consumption       VB grant     • Connected to a CPU Unit or 1 to 2 W max.     VC ourrent consumption       VB grant     • Connected to a CPU Unit or 1 to 2 W max.     VC ourrent consumption       VB grant     • O onect to a CPU Unit or 0 conmunication Control Unit. Possible in upright i		•						
Indicator       Imput range       -10 to +10 V         Input conversion range       -5 to 105% (til scale)         Absolute maximum       ±15 V         Input conversion range       -5 to 105% (til scale)         Absolution       1/8000 (til scale)         Overall       28°C       ±0.2% (till scale)         Overall       28°C       ±0.2% (till scale)         Owerall       28°C       ±0.4% (till scale)         Owerall       28°C       ±0.4% (till scale)         Insulation resistance       20 ML min. between isolated circuits (at 0 VO Dover supply       Dielectric strength       510 VAC between isolated circuits for 1         Mo Dover supply       No supply       Current capacity of I/O       Without I/O power supply terminal         NX Unit power       • Connected to a CPU Unit or Conset to a Connunications Coupler Unit 1.35 W max.       V/O current consumption       No consumption         NX Unit power       • Connected to a COPU Unit or Communications Coupler Unit 1.05 W max.       V/O current consumption       No power supply + min the volup ower supply + min the supp	I/O refreshing method							
Indicator     Imput conversion range Absolute maximum rating Imput impedance 1 M2 min.     -5 to 105% (full scale)       Input impedance 1 M2 min.     -5 to 105% (full scale)       Overall 2 Conversion Time 2 Dispoint     25 C 2 D 42% (full scale)       Dimensions     12 (W) x 100 (H) x 71 (D)     Isolation method       Insulation resistance     20 M2 min. between isolated circuits (at 100 VDC)     Dielectric strength 100 VDC)     Dielectric strength 100 VDC)       Most unit power consumption     20 M2 min. between isolated circuits (at 100 VDC)     Dielectric strength 100 VDC)     Without I/O power supply terminal       NX Unit power consumption     20 M2 min. between isolated circuits (at 100 VDC)     Current consumption     Without I/O power supply terminals       Vog power supply method     0 connected to a CPU Unit or Communications Current consumption     No consumption     No consumption       Vog max     Terminal to orientation: 1.05 W max.     Input + 82 + 100 VDC)     No consumption       Vog max     Terminal connection (WD) No power supply + 100 power sup			•					
Indicator       Absolute maximum rating input impedance       ±15 V         Input impedance       1 MΩ min.         Resolution       1/8000 (hill scale)         Overall       25°C       ±0.2% (kill scale)         Overall       25°C       ±0.4% (kill scale)         Dimensions       12 (W) x 100 (H) x 71 (D)       isolation method       Between the input and the NX bus: Pow = Transformer. Signal = Digital isolator isolation between isolated circuits (at the power supply         No supply       20 MQ min. between isolated circuits (at the power supply       Dielectric strength       510 VAC between isolated for with a finite operation of S nA min to VO power supply terminal         NX Unit power consumption       • Connected to a CPU Unit or 1.0 SW max.       V/0 current consumption       No consumption         NX Unit power consumption       • Connected to a Communications Coupler unit       V/0 current consumption       No consumption         NU to be were consumption       • Connected to a Communications Coupler unit       V/0 current consumption       No consumption         NU to be were consumption       • Connected to a Communications Coupler unit       V/0 current consumption       No consumption         NU to be were consumption       • Connected to a Communications (u) power supply - (u)       • Consumption       No consumption         Installation orientation: not opower supply - (u)       • Connected t								
Indicator       Find timpedance input impedance 20 (ull scale)       11 M3 min.         Dimensions       12 (W) × 100 (H) × 71 (D)       Isolation method sccuracy (0 to 55°C ± 0.4% (till scale))         Dimensions       12 (W) × 100 (H) × 71 (D)       Isolation method       Eleven the input and the NX bus: Portications         Dimensions       12 (W) × 100 (H) × 71 (D)       Isolation method       Eleven the input and the NX bus: Portications the input and t			· · ·	-5 to 105% (full scale)				
Imput impediate     1 Mar.       Provide the input impediate     2 Mar. <t< th=""><th>Indicator</th><th></th><th>rating</th><th></th></t<>	Indicator		rating					
Overall acturacy         25°C (10 55°C         ±0.2% (full scale)           Dimensions         12 (W) x 100 (H) x 71 (D)         Isolation method         Enveen the input and the XD bus: Pool isolation network inputs)           Insulation resistance         20 M(2 min. between isolated circuits (at 100 VOC)         Dielectric strength         510 VAC between isolated circuits for minute at a helakage current of 3 m A m isolation between inputs)           VO power supply         No supply         Current capacity of I/O power supply terminals         Vithout I/O power supply terminals           NX Unit power consumption              • Connected to a CPU Unit or Communications Countrol Unit 1.35 W max.         Vo current consumption         No consumption           Veight         70 g max.              Vo current consumption         No consumption         No consumption           Installation orientation: and restrictions         Installation orientation: isolation consumption         No consumption         No consumption           Installation orientation: and restrictions              The stallation orientation: isolation consumption         Installation.              Connected to a CPU Unit or Communication Countrol Unit: Isolation contentiation: Isolation contentiation: Isolation contentiation:              Lopower supply - Isolation.              Isolation.           Circuit layout         Installation orientation: Isolation orientation: Isolation content to a CPU Unit or Communicati	indicator							
accuracy     0 to 55°C     ±0.4% (full scale)       Dimensions     12 (W) x 100 (H) x 71 (D)     Isolation method     Between the input and the NX bus: Pow = Transformer, Signal = Digital isolator isolation between isolated dircuits (at 100 VDC)     Dielectric strength     510 VAC between isolated dircuits or minute at a leakage current of 5 mA ma 20 MQ minute at a leakage current of 5 mA ma 100 VDC       VO power supply method     No supply     Current capacity of VO power supply terminal     Without I/O power supply terminals       NX Unit power consumption     - Connected to a CPU Unit or Communication Control Unit 1.35 W max.     - Connected to a Communications Coupler Unit 1.35 W max.     VO current consumption     No consumption       Weight     70 g max.     Terminal some provide the to 2+ Weight     Terminal some provide the to 2+ Weight     UO power supply - Weight     No consumption       Installation orientation and restrictions     Installation orientation: + Connected to a CPU Unit or Communications Coupler Unit: Possible in Up power supply - Weight     Installation orientation: + Connected to a CPU Unit or Communications Coupler Unit: Possible in Up power supply - Weight     Installation.       Installation orientation: and restrictions     Installation contentation: + Connected to a CPU Unit or Communications Coupler Unit: Possible in G orientations. Restrictions: No estinctions       Installation orientation: imput - installation orientation: A G imminut is connected to 0 V of analog drast isde the Unit.								
Conversion time         250 µs/point           Dimensions         12 (W) x 100 (H) x 71 (D)         Isolation method         Between the input and the NX bus: Por Transformer, Signal = Digital isolator isolation between isolated circuits (at 100 VDC)         Dielectric strength         Si 0 VAC between isolated circuits for minute at a leakage ourrent of 5 mA me without 1/O power supply           VO power supply         No supply         Current capacity of V/O power supply terminal         Without 1/O power supply terminals           NX Unit power consumption         • Connected to a CPU Unit or Communication Control Unit 1.35 W max.         • Connected to a CPU Unit or Connected to a Communications Coupler Unit 1.05 W max.         No consumption         No consumption           Vieight         70 g max.         VO eurrent consumption         No consumption         No consumption           Circuit layout         100 power supply = Unit 1.05 W max.         Installation orientation: 1.05 W max.         Installation orientation: 1.05 W max.         Installation orientation: 1.05 W max.         In power supply + 1. W that 1.05 W max.         In power supply + 1. W that 1.05 W max.         In power supply + 1. W that 1.05 W max.         In power supply + 1. W that 1.05 W max.         In power supply + 1. W that 1.05 W max.         In power supply + 1. W that 1.05 W max.         In power supply + 1. W that 1.05 W max.         In power supply + 1. W that 1.05 W max.         In power supply + 1. W that 1.05 W max.         In power supply + 1. W that 1.05 W max.         In power supply			overall					
Dimensions     12 (W) x 100 (H) x 71 (D)     Isolation method     Between the input and the NX bus: Poolation between fixed all isolated incuits (at location between fixed all isolation testistance       10 Q0 MQ min. between isolated circuits (at log VDC)     Deletectric strength     510 VAC between isolated circuits for 1 minute at a leakage current of 5 mA method       VO power supply method     No supply     Current capacity of VO power supply terminal       NX Unit power communication Control Unit 1.35 W max.     Connected to a CPU Unit or Communications Coupler Unit 1.35 W max.       No supply     Current capacity of VO power supply terminal       Weight     70 g max.       Weight     70 g max.       Unit power (log VDC)     Installation orientation:       Installation orientation and restrictions     Installation orientation:       Installation orientation and restrictions     Installation orientation:       Installation orientation:     Installation orientation:       Installation orientation and restrictions     Installation orientation:       Terminal connection orientation:     Installation orientation:       Imput + NA Apply     Imput + input								
Dimensions       12 (W) x 100 (H) x 71 (D)       Isolation method       = Transformer, Signal = Digital isolator / isolation between ipolated circuits (at 100 VDC)         Insulation resistance       20 MQ min. between isolated circuits (at 100 VDC)       Dielectric strength       510 VAC between isolated circuits for 1 minute at a leakage current of 5 mA method         VO power supply method       No supply       Current capacity of IO power supply terminal       Without I/O power supply terminal         NX Unit power consumption       • Connected to a CPU Unit or Communications Coupler Unit 1.35 W max.       VO current consumption       No consumption         Weight       70 g max.       Imputit + 62+			Conversion time					
Insultation resistance     100 VDC)     We want the end of	Dimensions	12 (W) x 100 (H) x 71 (D)	Isolation method	= Transformer, Signal = Digital isolator (no				
method     IV Supply     power supply terminal     Willout //O power supply terminals       NX Unit power consumption <ul> <li>Connected to a CPU Unit or Communication Control Unit 1.55 W max.</li> <li>Connected to a Communications Coupler Unit 1.55 W max.</li> <li>Veight</li> <li>70 g max.</li> <li>Terminal block</li> <li>Installation orientation: <ul> <li>Installation orientations</li> <li>Installation orientations</li> <li>Connected to a CPU Unit or Communication Control Unit 1.05 W max.</li> </ul> </li> <li>Terminal block</li> <li>Installation orientation: <ul> <li>Connected to a CPU Unit or Communication Control Unit: Possible in upright installation.</li> <li>Connected to a CPU Unit or Communication Control Unit: Possible in 6 orientations. Restrictions.</li> </ul> </li> <li>Terminal connection orientation: <ul> <li>Connected to a CPU Unit or Communication Control Unit: Possible in 6 orientations. Restrictions.</li> <li>Connected to a Communications coupler Unit: Possible in 6 orientations. Restrictions.</li> </ul> </li> </ul>	Insulation resistance		Dielectric strength	510 VAC between isolated circuits for 1 minute at a leakage current of 5 mA max.				
NX Unit power consumption       Communication Control Unit 1.35 W max.       I/O current consumption       No consumption         Weight       70 g max.         Circuit layout       70 g max.         Installation orientation (eff)       Input1+ to 2+ (uput1- to 2- (eff)       Input1+ to 2+ (uput1- to 2- (uput1- to 2- (upower supply-)       I/O power supply + (uput1- to 2- (uput1- to 2- (uput1- to 2- (uput1- to 2- (uput1- to 2- (upower supply-))       I/O power supply + (up power supply-)         Installation orientation and restrictions       Installation orientation: • Connected to a CPU Unit or Communication Control Unit: Possible in upright installation. • Connected to a CPU Unit or Communication Control Unit: Possible in orientation: • Connected to a CPU Unit Possible in 6 orientation: • Connected to a Communications Coupler Unit: Possible in 6 orientations. Restrictions: No restrictions         Terminal connection diagram       Imput1+ (uput1- (uput1)       Imput + (uput1- (uput1)		No supply		Without I/O power supply terminals				
Circuit layout       Terminal block       Input1+ to 2+ Input1- to 2- AG       Input1+ to 2+ AG       Input + Input - AG       Input + AG       Input + AG       Input + AG       Input1+ to 2+ AG       Input + AG	consumption	Communication Control Unit 1.35 W max. • Connected to a Communications Coupler Unit 1.05 W max.	I/O current consumption	No consumption				
Circuit layout       Terminal block       Input1- to 2- AG       ANP AG       Analog circuit internal GND AG       I/O power supply + I/O power supply + I/O power supply + I/O power supply - I/O power su	Weight	70 g max.						
Installation orientation and restrictions <ul> <li>Connected to a CPU Unit or Communication Control Unit: Possible in upright installation.</li> <li>Connected to a Communications Coupler Unit: Possible in 6 orientations. Restrictions: No restrictions</li> </ul> Terminal connection diagram <ul> <li>Voltage Input Unit NX-AD2604         </li> <li>Input + Input + Input + Input - Input + Input - Input -</li></ul>	Circuit layout	Terminal block Input1- to 2- AG NX bus connector I/O power supply +	510 ΚΩ	I/O power supply + NX bus connector				
Terminal connection diagram		<ul> <li>Connected to a CPU Unit or Communication Control Unit: Possible in upright installation.</li> <li>Connected to a Communications Coupler Unit: Possible in 6 orientations.</li> </ul>						
		ninal connection pram						
Input disconnection detection Not supported.		Not supported.						

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

Unit name	Analog Input Unit (voltage input type)	Model		NX-AD2608	
Unit name	External connection		onnection	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 meth		Differential Input	
	AD2608	Input rang		-10 to +10 V	
		•	version range	-5 to 105% (full scale)	
		Absolute r rating	naximum	±15 V	
Indicator		Input impe	dance	1 MΩ min.	
		Resolution		1/30000 (full scale)	
		Overall	25°C	±0.1% (full scale)	
			0 to 55°C	±0.2% (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	No supply		pacity of I/O	Without I/O power supply terminals	
NX Unit power consumption	<ul> <li>Connected to a CPU Unit or Communication Control Unit 1.35 W max.</li> <li>Connected to a Communications Coupler Unit 1.05 W max.</li> </ul>	I/O current consumption		No consumption	
Weight	70 g max.				
Circuit layout	Terminal block Input1+ to 2+	AM \$ 510 KΩ AG A	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 or Communica • Connected to a Communications Couple Restrictions: No restrictions				
Terminal connection diagram	AG AG NC NC AG terminal is connected	✓ Input + ✓ Input – Input – nnected to 0 V of analog circuit inside the Unit. y 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-AD	3603
		External co	onnection		ess clamping terminal block (12
Number of points	4 points	terminals	Jimeetion	termina	
I/O refreshing method	Free-Run refreshing				
	TS indicator	Input meth		, v	ended input
	AD3603 DTS	Input range		-10 to -	
		•	ersion range	-5 to 10	05% (full scale)
Indicator		Absolute n rating		±15 V	
Indicator		Input impe		1 MΩ r	nin.
		Resolution			(full scale)
		Overall	25°C		(full scale)
		-	0 to 55°C		(full scale)
		Conversio	n time	250 μs	
Dimensions	12 (W) x 100 (H) x 71 (D)	Isolation m	nethod	= Trans	en the input and the NX bus: Power sformer, Signal = Digital isolator (no n between inputs)
Insulation resistance	20 M $\Omega$ min. between isolated circuits (at 100 VDC)	Dielectric s	strength		C between isolated circuits for 1 at a leakage current of 5 mA max.
I/O power supply method	Supply from the NX bus		pacity of I/O ply terminal		1 A/terminal max., 0.1 A/terminal max.
NX Unit power consumption	<ul> <li>Connected to a CPU Unit or Communication Control Unit 1.35 W max.</li> <li>Connected to a Communications Coupler Unit 1.10 W max.</li> </ul>	I/O current consumption		No cor	sumption
Weight	70 g max.				
Circuit layout	Terminal block IND Input1+ to 4+ IOG AG: Analog circuit internal GND NX bus connector (left) 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 or Communication Control 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 IOV IOV IOV IOV IOV IOV IOV IOV	Voltage Input NX-AD360 A1 INput1+ Input IOV IO IOG IOC INput3+ Inpu IOV IO IOG IO IOG IO	3 2+• 3 • 7 tt4+ V • 7 hree-wit	re sensor	Input + 24 V (Sensor power supply +) 0 V (Sensor power supply – / Input –)
Input disconnection detection	Not supported.				

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

Unit name	Analog Input Unit (voltage input type)	Model	NX-AD3604		
		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	Differential Input		
	AD3604	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 $\Omega$ 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	<ul> <li>Connected to a CPU Unit or Communication Control Unit 1.35 W max.</li> <li>Connected to a Communications Coupler Unit 1.10 W max.</li> </ul>	I/O current consumption No consumption			
Weight	70 g max.	L			
Circuit layout	Terminal block $\begin{bmatrix} Input1+ to 4+ \\ Input1- to 4- \\ AG \\ A$				
Installation orientation and restrictions	Installation orientation: • Connected to a CPU Unit or Communica • Connected to a Communications Couple Restrictions: No restrictions				
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 e AG terminal normally.	ít.		
Input disconnection detection	Not supported.				

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

		Medel			2000
Unit name	Analog Input Unit (voltage input type)	Model External co	onnoction	NX-AD	less clamping terminal block (12
Number of points	4 points	terminals		termina	1 8 (
I/O refreshing method	Selectable Synchronous I/O refreshing or F		-	D:#****	atial lagrat
	TS indicator AD3608	Input meth			ntial Input
	AD3008 DTS	Input rang		-10 to	
		•	version range	-5 to 1	05% (full scale)
		Absolute r rating	naximum	±15 V	
Indicator		Input impe	edance	1 MΩ r	min.
		Resolution		1/3000	00 (full scale)
		Overall	25°C	±0.1%	(full scale)
		accuracy	0 to 55°C	±0.2%	(full scale)
		Conversio	n time	10 μs/μ	point
Dimensions	12 (W) x 100 (H) x 71 (D)	Isolation n	nethod	= Tran	en the input and the NX bus: Power sformer, Signal = Digital isolator (no on between inputs)
Insulation resistance	20 $M\Omega$ min. between isolated circuits (at 100 VDC)	Dielectric	strength	510 VA	AC between isolated circuits for 1 at a leakage current of 5 mA max.
I/O power supply method	No supply		pacity of I/O	Withou	It I/O power supply terminals
NX Unit power consumption	<ul> <li>Connected to a CPU Unit or Communication Control Unit 1.45 W max.</li> <li>Connected to a Communications Coupler Unit 1.10 W max.</li> </ul>	I/O current	t consumption	No cor	nsumption
Weight	70 g max.				
Circuit layout	Terminal block Input1+ to 4+	<b>↓</b>	NG: Analog circuit inte	(	) I/O power supply + Connector I/O power supply – (right)
Installation orientation and restrictions	Installation orientation: • Connected to a CPU Unit or Communications • Connected to a Communications Couple Restrictions: No restrictions				t installation.
Terminal connection diagram				sit.	
Input disconnection detection	Not supported.				
	•				

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

		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		
	TS indicator	Input method	Single-ended input
	AD4603	Input range	-10 to +10 V
		Input conversion range	-5 to 105% (full scale)
		Absolute maximum rating	±15 V
Indicator		Input impedance	1 M $\Omega$ 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	IOG: 0.1 A/terminal max.
NX Unit power consumption	<ul> <li>Connected to a CPU Unit or Communication Control Unit 1.45 W max.</li> <li>Connected to a Communications Coupler Unit 1.15 W max.</li> </ul>	I/O current consumption	No consumption
Weight	70 g max.		1
Circuit layout	Terminal block IDG NX bus connector (left) I/O power supply +	AMP AG AG: Analog circuit inte	ernal GND I/O power supply + NX bus connector (right)
Installation orientation and restrictions	Installation orientation: • Connected to a CPU Unit or Communications • Connected to a Communications Couple Restrictions: No restrictions		
Terminal connection diagram	0000         1000         100         100         100           24 VDC         100         100         100         100         100           100         100         100         100         100         100         100           100         100         100         100         100         100         100         100		Input + 24 V (Sensor power supply +) 0 V (Sensor power supply –/ I
Input disconnection detection	Not supported.		

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

Unit name	Analog Input Unit (voltage input type)	Model	NX-AD4604
Number of points	8 points	External connection	Screwless clamping terminal block (16
-	•	terminals	terminals)
I/O refreshing method	Free-Run refreshing	Input mothod	Differential Input
	TS indicator AD4604	Input method Input range	Differential Input -10 to +10 V
	DTS	Input conversion range	-5 to 105% (full scale)
		Absolute maximum	
Indicator		rating	±15 V
Indicator		Input impedance	1 MΩ min.
		Resolution	1/8000 (full scale)
		Overall 25°C accuracy 0 to 55°C	$\pm 0.2\%$ (full scale)
		Conversion time	±0.4% (full scale) 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 $M\Omega$ 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	<ul> <li>Connected to a CPU Unit or Communication Control Unit 1.45 W max.</li> <li>Connected to a Communications Coupler Unit 1.15 W max.</li> </ul>	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 inter	I/O power supply + NX bus connector I/O power supply – (right)
Installation orientation and restrictions	Installation orientation: • Connected to a CPU Unit or Communications • Connected to a Communications Couple Restrictions: No restrictions		
Terminal connection diagram		nput + nput –	
Input disconnection detection	Not supported.		

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

Unit name		Model		NX-AD	14608
	Analog Input Unit (voltage input type)	External co	opposition		less clamping terminal block (16
Number of points	8 points	terminals		termina	
I/O refreshing method	Selectable Synchronous I/O refreshing or Free-Run refreshing				
	TS indicator AD4608	Input meth			ntial Input
	AD4008 DTS	Input range		-10 to	
		Absolute n	ersion range	-5 to 1	05% (full scale)
Indicator		rating		±15 V	
indicator		Input impe		1 MΩ r	
		Resolution			00 (full scale)
		Overall	25°C		(full scale)
		-	0 to 55°C		(full scale)
		Conversio	n time	10 μs/μ	
Dimensions	12 (W) x 100 (H) x 71 (D)	Isolation m	nethod	= Tran	en the input and the NX bus: Power sformer, Signal = Digital isolator (no on between inputs)
Insulation resistance	20 M $\Omega$ min. between isolated circuits (at 100 VDC)	Dielectric	strength		AC between isolated circuits for 1 at a leakage current of 5 mA max.
I/O power supply method	No supply		pacity of I/O ply terminal	Withou	It I/O power supply terminals
NX Unit power consumption	<ul> <li>Connected to a CPU Unit or Communication Control Unit 1.45 W max.</li> <li>Connected to a Communications Coupler Unit 1.15 W max.</li> </ul>	I/O current	consumption	No cor	nsumption
Weight	70 g max.				
Circuit layout	Terminal block Input1+ to 8+ Input1- to 8- S 510 KΩ AG A NX bus connector (left) I/O power supply +	Ļ	G: Analog circuit inter	nal GND (	) I/O power supply + connector I/O power supply – (right)
Installation orientation and restrictions	Installation orientation: • Connected to a CPU Unit or Communication Control Unit: Possible in upright installation. • Connected to a Communications Coupler Unit: Possible in 6 orientations. Restrictions: No restrictions				
Terminal connection diagram		ıput + ıput –			
Input disconnection detection	Not supported.				

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

<b>.</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)		
Indicator		Absolute maximum rating	±30 mA		
indicator		Input impedance	250 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 $\Omega$ 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	<ul> <li>Connected to a CPU Unit or Communication Control Unit 1.25 W max.</li> <li>Connected to a Communications Coupler Unit 0.90 W max.</li> </ul>	I/O current consumption	No consumption		
Weight	70 g max.				
Circuit layout	Terminal block Input1+ to 2+ IOG AG AG AG AG AG AG AG AG AG A				
Installation orientation and restrictions	Installation orientation: • Connected to a CPU Unit or Communication Control 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 OC IOV 24 VDC A8 B8		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

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 AD2204	Input method	Differential Input		
	ADZZ04 DTS	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	1/8000 (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	<ul> <li>Connected to a CPU Unit or Communication Control Unit 1.25 W max.</li> <li>Connected to a Communications Coupler Unit 0.90 W max.</li> </ul>	I/O current consumption	No consumption		
Weight	70 g max.				
Circuit layout	Terminal block Input1+ to 2+	510 KΩ § 510 KΩ AG: Anali AG	bg circuit nal GND I/O power supply + NX bus connector (right)		
Installation orientation and restrictions	Installation orientation: • Connected to a CPU Unit or Communications • Connected to a Communications Couple Restrictions: No restrictions				
Terminal connection diagram	AG AG NC NC	put + put – 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

Linit name		Madal			
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)		
Indiantar		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 $M\Omega$ 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	<ul> <li>Connected to a CPU Unit or Communication Control Unit 1.25 W max.</li> <li>Connected to a Communications Coupler Unit 0.90 W max.</li> </ul>	I/O current consumption	No consumption		
Weight	70 g max.				
Circuit layout	Terminal block Input1+ to 2+	510 KΩ \$510 KΩ AG: Anali	og circuit nal GND I/O power supply + I/O power supply – I/O power supply –		
Installation orientation and restrictions	Installation orientation: • Connected to a CPU Unit or Communications • Connected to a Communications Couple Restrictions: No restrictions				
Terminal connection diagram	AG AG NC NC	put + put – d to 0 V of analog circuit inside the Ur a AG terminal normally.	ıit.		
Input disconnection detection	Supported.				

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

Unit name         Analog (npul Unit current inpul type)         Model         NAXA32833           Number of points         4 points         4 points         Screwless clamping terminal block (12 terminals)           UP offershing method         Fire-Run refershing         Input method         Single-onded input           Indicator         TS indicator         Input may         4 points         4 points           Indicator         TS indicator         Input may         4 points         30 mA           Indicator         TS indicator         Input may         30 mA         10000 (full scale)           Overall         250 C         ad-30 mA         10000 (full scale)         260 Q           Insulation resistance         12 (W) x 10 (H) x 71 (D)         Isolation method         Boly sploit         Boly sploit           Insulation resistance         12 (W) x 10 (H) x 71 (D)         Isolation method         Boly sploit         Insulation resistance           VD power supply         Supply from the NX bus         Different strength         Different strength         Final scale diriculato (no scale no bulk to may           VD power supply         Supply from the NX bus         Different strength         Different strength         Different strength           VD power supply         Supply from the NX bus         Different strength					
Number of points     + points     + points     terminals       VC ordershing method     Ts indicator     Input mage     4 to 20 mA imput conversion range     4 to 20 mA imput conversion range     5 indicator       Indicator     Ts indicator     Absolute maximum aring     = 30 mA       Indicator     10 MOX (ull scale)       Absolute maximum aring     = 30 mA       Indicator     16 MOX (ull scale)       Dimensions     12 (W) x 100 (H) x 71 (D)     Isolation method       Dimensions     12 (W) x 100 (H) x 71 (D)     Isolation method       Insulation resistance     20 MQ min. botwoin isolatod circuits (at 100 VCC)     Dielectric strength       NV Unit power supply     Supply from the NX bus     Current capacity of VO     OV 0.01 1 A/terminal max.       VO power supply     Supply from the NX bus     Current consumption     No consumption       NX Unit power consumption     - Connected to a CPU Unit or Consumption     VO current consumption     No consumption       NX Unit power consumption     - Connected to a CPU Unit or Consumption     VO g max.     VO gurent supply terminal     VO power supply       NX Unit power consumption     - Connected to a CPU Unit or Consumption     VO current consumption     No consumption       NX Unit power consumption     - Connected to a CPU Unit or Connected t	Unit name	Analog Input Unit (current input type)	Model	NX-AD3203	
Indicator       F3 indicator         Indicator       Input intereduction interestion renge       51 indicator         Indicator       Input interestion renge       410 20 mA         Input interestion renge       410 20 mA         Input interestion renge       51 indicator         Insulation resistance       12 (W) x 10 (H) x 71 (D)         Insulation resistance       20 MA min. between isolated circuits (at 100 VDC)       Delectric strength         V/O power supply       Supply from the NX bus       Current capacity of VO indicator (D) activation for the indicator (D) indica	Number of points	4 points			
Indicator     Input range     4 to 20 mA       Input conversion range     5 to 105% (full scale)       Absolute maximum roting     250 Ω       Resolution     1/8000 (full scale)       Overall     25° ± 40.2% (full scale)       Orwersion range     5 to 105% (full scale)       Orwersion range     250 Ω       Resolution     1/8000 (full scale)       Orwersion range     25° ± 40.2% (full scale)       Orwersion time     250 µ2       Dimensions     12 (W) x 100 (H) x 71 (D)       Insultion resistance     20 MU min between isolated circuits (at 00 VDC)       Onversion time     250 µ2       Insultion resistance     20 MU min between isolated circuits (at 00 VDC)       NX Unit power consumption     20 MU min between isolated circuits (at 0.00 CC)       Vieight     70 g max.       Weight     70 g max.       Vieight     70 g max.       Installation orientations (min)     10 power supply terminal (min)       No consumption     No consumption       No consumption     10 power supply terminal (min)       Installation orientations (min)     10 power supply terminal (min)       No consumption     10 power supply terminal (min)       No consumption     10 power supply terminal (min)       Installation orientations (min)     10 power supply terminal (min) </th <th>I/O refreshing method</th> <th>Free-Run refreshing</th> <th></th> <th></th>	I/O refreshing method	Free-Run refreshing			
Indicator     Imput conversion range Absolute maximum rating     -5 to 105% (full scale)       Absolute maximum rating     -30 mA       Imput impedance     250 1       Provide the second of t			Input method	Single-ended input	
Indicator     Imput impedance     250 G       Input impedance     250 G       Resolution     10000 (full cole)       Orrestion time     250 G       Resolution     10000 (full cole)       Oversion time     250 G       Resolution     10000 (full cole)       Oversion time     250 G       Insulation resistance     20 M2 min. between isolated circuits (at 00 VOC)       Supply from the NX bus     Dielectric strength       Supply from the NX bus     Dielectric strength       NX Unit power consumption     • Connected to a CPU Unit or 0.02 0.1 Aterminal max.       NX Unit power consumption     • Connected to a Communications Coupler Unit 1.25 W max.       Ouge ower supply (with to be ower supply)     • Connected to a Communications Coupler Unit 1.25 W max.       Vio power supply (with to be ower supply)     • Connected to a Communications Coupler Unit 1.25 W max.       Vio power supply     • Connected to a Communications Coupler Unit 1.05 W max.       • Connected to a Communications Coupler Unit 1.0 power supply     • Wo consumption       • Connected to a Communications Coupler Unit 1.0 power supply     • Wo consumption       • Connected to a Communications Coupler Unit 1.0 power supply     • Wo consumption       • Connected to a Communications Weight     • Connected to a Communication Control Unit 1.0 power supply       • Connected to a Communications     • Connected to a Comm			Input range		
Indicator     rating     =30 mA       Input impodance     250 G       Resolution     1/8000 (full scale)       Overal     25° G       accuracy of to 55° C     -0.2% (full scale)       Dimensions     12 (M) x 100 (H) x 71 (D)       Insulation resistance     20 M2 min. between isolated circuits (at       Dielectric strength     510 VAC Detween isolated circuits (at       Method     500 VAC (Attement of 50 mA max.)       Insulation resistance     20 M2 min. between isolated circuits (at       Dielectric strength     510 VAC Detween isolated circuits (at       Method     Supply from the NX bus       Ower supply     Supply from the NX bus       Ower supply     Supply from the NX bus       Ower supply     Connected to a CPU Uhit on       - Connected to a CPU Uhit on     ICG: 0.1 Atterminal max.       - Connected to a CPU Uhit on     VO current consumption       NX Unit power     - Connected to a Communication Scoper Uhit       - Connected to a Communication Scoper Uhit     VO current consumption       NV Out or max     - Connected to a Communication Scoper Uhit       - Mode at the state     - Connected to a Communication Control Uhit       - State     - Connected to a Communication Scoper Uhit       - Mode at the state     - Connected to a Communication Scoper Uhit       - Mode at the state </th <th></th> <th></th> <th>Input conversion range</th> <th>-5 to 105% (full scale)</th>			Input conversion range	-5 to 105% (full scale)	
Implify timpecance     20013       Presolution     19000 (till scale)       Overall     850°C       Accuracy     85°C       Dimensions     12 (W) x 100 (H) x 71 (D)       Isolation resistance     20 M2 min. between isolated circuits (at 100 VDC).       VC power supply     500 VAC between isolated circuits (at 100 VDC).       VC power supply     Supply from the NX bus       Supply from the NX bus     Current capacity of I/O       NX Unit power consumption     Connected to a Communications 0.90 W max.       Veright     70 g max.       Circuit layout     Installation orientations 0.90 W max.       Installation orientation consumption     Installation control Unit 1.25 W max.       Via power consumption     10 VC CHU Unit or Commercied to a Communications 0.90 W max.       Via power consumption     10 occurrent capacity of I/O       Veright     70 g max.       Circuit layout     Installation orientation: Installation orientation: Prometed to a Communication Control Unit: Possible in upright installation.       No consected to a Communication Control Unit: 0.00 power supply - [Viet]       Installation orientation: Prometed to a Communication Control Unit: Possible in go internations. Prestrictions: No restrictions       Installation orientation: Prometed to a Communication Control Unit: Possible in go internations. Prestrictions: No restrictions       Prometed to a Communication Control Unit: Possible in in forientati	Indiantor			±30 mA	
Deresti     25°C     ±0.2%, (luil scale)       Dimensions     12 (W) × 100 (H) × 71 (D)     Isolation method     Etween the input and the NX bus: Power = Transformer, Signa = Digital isolation (no isolation between isolated circuits (at Dio VDC)     Delectric strength     Etween the input and the NX bus: Power = Transformer, Signa = Digital isolated circuits (at Dio VDC)       VO power supply method     Supply from the NX bus     Durrent capacity of VO power supply terminal     ICV: 0.1 Alterminal max.       NX Unit power consumption     • Connected to a CPU Unit or communication Control Unit 1.28 W max.     Current capacity of VO power supply terminal     ICV: 0.1 Alterminal max.       NX Unit power consumption     • Connected to a Communications Coupler Unit 1.28 W max.     IVO current consumption     No consumption       Void using the input and the NX bus     • Connected to a Communications Coupler Unit 1.28 W max.     IVO current consumption     No consumption       Veright     70 g max.     • Connected to a Communications Coupler Unit 1.09 oner supply - Unit 100 power supply - Unit 250 Commeted to a CPU Unit or Communication Control Unit: Possible in upright installation.       Installation orientation: enterstrictions: No restrictions     • Commeted to a CPU Unit or Communication Control Unit: Possible in 6 orientations. Restrictions: No restrictions       Terminal connection     • Connected to a CPU Unit or Communication Control Unit: Possible in 6 orientations. Restrictions: No restrictions </th <th>indicator</th> <th></th> <th>Input impedance</th> <th>250 Ω</th>	indicator		Input impedance	250 Ω	
accuracy     0 to 55°C     20.4%. (tull acale)       Dimensions     12 (W) x 100 (H) x 71 (D)     Isolation method     Between the input and the NX bus: Power - Transform; Signal = Digital isolator (no isolation between inputs)       Insulation resistance     20 MQ min. between isolated circuits (at Dimensions     Dielectric strength Dielectric strength Communication to the NX bus: Power supply we supply from the NX bus - Connected to a CPU Unit or Communication Control Unit - 2.5 W max.     Dielectric strength - Connected to a CPU Unit or Communication Control Unit - 2.5 W max.     Dielectric strength - Connected to a Communications - Connected to a CPU Unit or Communication Control Unit: Possible in upright installation. - Connected to a CPU Unit or Communications. - Connected to a CPU Unit or Communication Control Unit: Possible in upright install				, ,	
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 Solotor (no Isolation between inputs)           Insulation resistance         20 M2 min. between isolated circuits (at 100 VDC)         Dielectric strength         510 VAC between isolated circuits for 1 minute at leakage current of 5 mA max.           Vinethod         Supply from the NX bus         Conversion time         00 00 00 00 00 00 00 00 00 00 00 00 00				· · · ·	
Dimensions         12 (W) x 100 (H) x 71 (D)         Isolation method         Between the input and the NX bus: Power - Transformer, Signal = Digital solator (m isolation between isolated circuits (at // O power supply           20 M2 min. between isolated circuits (at // O power supply         Dielectric strength         S10 VA Detween isolated circuits for 1 minute at a leakage current of 5 mA max.           // O power supply method         Supply from the NX bus         Current capacity of <i>VD</i> power supply terminal 00: 0.1 Afterminal max.           NX Unit power consumption         - Connected to a CPU Unit or Connected to a CPU Unit or Connected to a Communications Coupler Unit 0.90 W max.         VO current consumption         No consumption           Weight         70 g max.         VO g max.         VO current consumption         No consumption           Circuit layout         Installation orientation:					
Dimensions     12 (W) x 100 (H) x 71 (D)     Isolation method     = Transformer, Signal = Digital isolator (no isolation between isolated circuits (at muce at a leakage current of 5 mA max.       V/O power supply method     Supply from the NX bus     Current capacity of V/O power supply terminal     100 (C) 1 Alterminal max.       NX Unit power consumption     Connected to a CPU Unit or Communication Control Unit 0.90 W max.     Current consumption     IOV: 0.1 Alterminal max.       Weight     70 g max.     VO current consumption     No consumption       Circuit layout     Installation orientation: UD power supply terminal     Installation orientation: (no     Installation orientation: (no       Installation orientation: diagram     Installation orientation: (no     Installation orientation: (no     Occurrent consumption     No base consumption       Terminal connection diagram     Installation orientation: (no     Installation orientation: (no     Connected to a CPU Unit or Communication Control Unit: Possible in upright installation. (no     Occurrent layout       Terminal connection     Installation orientation: (no     Connected to a CPU Unit or Communication Control Unit: Possible in upright installation. (no     Connected to a CPU Unit or Communication Control Unit: Possible in upright installation. (no     Connected to a CPU Unit or Communication Control Unit: Possible in upright installation. (no     Connected to a CPU Unit or Communication Control Unit: Possible in upright installation. (no     Connected to a CPU Unit or Communication Control Unit: Possible in upright installati			Conversion time		
Installation resistance     100 VDC)     Delecting strength     minute at a leakage current of 5 mA max.       VO power supply     Supply from the NX bus     Current capacity of VO power supply terminal     IOV: 0.1 Alterminal max.       NX Unit power consumption     - Connected to a CPU Unit or Communication Control Unit 1.25 W max.     VO current consumption     No consumption       Weight     70 g max.     VO g max.     VO current consumption     No consumption       Veright     70 g max.     Terminal loak     Input + 10 4     Input + 10 4       Vision     Input + 10 4     Input + 10 4     Input + 10 4     Input + 10 4       Vision     Installation orientation:     Input + 10 4     Input + 10 4     Input + 10 4       Vision     Installation orientation:     Installation orientation:     Installation orientation:       Installation orientation and restrictions     Installation orientation:     - Connected to a CPU Unit or Communication Control Unit: Possible in upright installation.       Connected to a CPU Unit or Communication Control Unit: Possible in 6 orientations.     - Connected to a CPU Unit or Communication Control Unit: Possible in upright installation.       Input + isode     Input + isode     Input + isode     Input + isode       Vision     Input + isode     Input + isode     Input + isode       Vision     Input + isode     Input + isode     Input + isode	Dimensions	12 (W) x 100 (H) x 71 (D)	Isolation method	= Transformer, Signal = Digital isolator (no	
method     Supply from the KN bus     power supply terminal     IOG: 0.1 A/terminal max.       NX Unit power consumption <ul> <li>Connected to a CPU Unit or Communication Control Unit 1.25 W max.</li> <li>Weight</li> <li>70 g max.</li> <li>Weight</li> <li>70 g max.</li> <li>Terminal toda (Input+ to 44)</li> <li>Installation orientation: uo power supply + uo power supply - uo power supply - uo</li></ul>	Insulation resistance		Dielectric strength		
NX Unit power consumption       Communication Control Unit 1.25 W max.       VO current consumption       No consumption         Weight       70 g max.         Weight       70 g max.         Circuit layout       Imput to the function of the funct of the function of the function of the function of t		Supply from the NX bus			
Circuit layout       Terminal block       Input1+ to 4+ Input1+ t		Communication Control Unit 1.25 W max. • Connected to a Communications Coupler Unit	I/O current consumption	No consumption	
Circuit layout       Imput1+ to 4+       Imput1+	Weight	70 g max.			
Installation orientation and restrictions       • Connected to a CPU Unit or Communication Control Unit: Possible in upright installation. • Connected to a Communications Coupler Unit: Possible in 6 orientations. Restrictions: No restrictions         Terminal connection diagram                Input disconnection               Input disconnection               Supported	Circuit layout	Terminal block Input1+ to 4+	250 Ω		
Terminal connection diagram       Power Supply Unit A B A B A B A B A B A B A B A B A B A		<ul> <li>Connected to a CPU Unit or Communication Control Unit: Possible in upright installation.</li> <li>Connected to a Communications Coupler Unit: Possible in 6 orientations.</li> </ul>			
		Power Supply Unit	NX-AD3203 A1 B1 Input1+ Input2+ IOV IOV IOG IOG Input3+ Input4+ IOV IOV IOG IOG	24 V (Sensor power supply +) 0 V (Sensor power supply – / Input –)	
		Supported.			

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

		1			
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	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	1/8000 (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	<ul> <li>Connected to a CPU Unit or Communication Control Unit 1.25 W max.</li> <li>Connected to a Communications Coupler Unit 0.90 W max.</li> </ul>	I/O current consumption	No consumption		
Weight	70 g max.	·			
Circuit layout	Terminal block Input1+ to 4+	510 KΩ \$510 KΩ AG: Anale	pg circuit hal GND I/O power supply + I/O power supply – I/O power supply –		
Installation orientation and restrictions	Installation orientation: • Connected to a CPU Unit or Communica • Connected to a Communications Couple Restrictions: No restrictions				
Terminal connection diagram	Input1- Input2- Input3+ Input4+ Input3- Input4- AG AG AG AG	nput + nput – id to 0 V of analog circuit inside the Ur re AG terminal normally.	ìit.		
Input disconnection detection	Supported.				

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

		<b></b>			
Unit name	Analog Input Unit (current input type)	Model	NX-AD3208		
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 AD3208	Input method	Differential Input		
	AD3208 DTS	Input range	4 to 20 mA		
		Input conversion range	-5 to 105% (full scale)		
Indicator		Absolute maximum rating	±30 mA		
		Input impedance	250 Ω		
		Resolution	1/30000 (full scale)		
		Overall25°Caccuracy0 to 55°C	±0.1% (full scale)		
			±0.2% (full scale)		
		Conversion time	10 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 $M\Omega$ 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	<ul> <li>Connected to a CPU Unit or Communication Control Unit 1.30 W max.</li> <li>Connected to a Communications Coupler Unit 0.95 W max.</li> </ul>	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 + I/O power supply – I/O power supply – (right)		
Installation orientation and restrictions	Installation orientation: • Connected to a CPU Unit or Communications • Connected to a Communications Couple 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 Ui e AG terminal normally.	nit.		
Input disconnection detection	Supported.				

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

Unit name	Analog Input Unit (current input type)	NX-AD4203			
		Model External connection	Screwless clamping terminal block (16		
Number of points	8 points	terminals	terminals)		
I/O refreshing method	Free-Run refreshing				
	TS indicator AD4203	Input method	Single-ended input		
	AD4203 DTS	Input range	4 to 20 mA		
		Input conversion range Absolute maximum	-5 to 105% (full scale)		
Indiantar		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 $\Omega$ 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.		
NX Unit power consumption	<ul> <li>Connected to a CPU Unit or Communication Control Unit 1.40 W max.</li> <li>Connected to a Communications Coupler Unit 1.05 W max.</li> </ul>	I/O current consumption	No consumption		
Weight	70 g max.		·		
Circuit layout	Terminal block INV bus connector (left) I/O power supply - NX bus NX bus connector (left) I/O power supply - NX bus connector (left) I/O power supply - NX bus connector (right) NX bus connector				
Installation orientation and restrictions	Installation orientation: • Connected to a CPU Unit or Communication Control 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 Connection Unit A1 B1 A1 B1 A1 B1 A1 B1 A1 B1 A1 B1 A1 B1 A1 B1 A1 B1 A1 B1 A1 B1 A1 B1 A1 B1 A1 B1 A1 B1 A1 B1 A1 B1 B1 A1 B1 B1 B1 B1 B1 B1 B1 B1 B1 B1 B1 B1 B1				
Input disconnection detection	Supported.		_		

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

Unit name	Analog Input Unit (current input type)	Model	NX-AD4204		
		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	Differential Input		
	AD4204	Input range	4 to 20 mA		
		Input conversion range	-5 to 105% (full scale)		
		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 $\Omega$ 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	<ul> <li>Connected to a CPU Unit or Communication Control Unit 1.40 W max.</li> <li>Connected to a Communications Coupler Unit 1.05 W max.</li> </ul>	I/O current consumption	No consumption		
Weight	70 g max.				
Circuit layout	Terminal block Input1+ to 8+ Input1- to 8- Input1-				
Installation orientation and restrictions	<ul> <li>Installation orientation:</li> <li>Connected to a CPU Unit or Communication Control Unit: Possible in upright installation.</li> <li>Connected to a Communications Coupler Unit: Possible in 6 orientations.</li> <li>Restrictions: No restrictions</li> </ul>				
Terminal connection diagram	Current Input Unit NX-AD4204     B1       A1     B1       Input1+     Input2+●       Input3+     Input4+       Input5+     Input6+       Input7-     Input8+       Input7-     Input8-       A8     B8				
Input disconnection detection	Supported.				

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

Unit name	Analog Input Unit (current input type)	Model	NX-AD4208		
		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	Input method	Differential Input		
	AD4208	Input range Input conversion range	4 to 20 mA -5 to 105% (full scale)		
		Absolute maximum			
Indicator		rating	±30 mA		
indicator		Input impedance Resolution	85 Ω 1/30000 (full scale)		
		Overall 25°C	±0.1% (full scale)		
		accuracy 0 to 55°C	$\pm 0.2\%$ (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	<ul> <li>Connected to a CPU Unit or Communication Control Unit 1.45 W max.</li> <li>Connected to a Communications Coupler Unit 1.10 W max.</li> </ul>	I/O current consumption	No consumption		
Weight	70 g max.				
Circuit layout	$\begin{array}{c c} Terminal block & Input1+ to 8+ \\ Input1- to 8- \\ & \\ & \\ Input1- to 8- \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ $				
Installation orientation and restrictions	Installation orientation: • Connected to a CPU Unit or Communication Control 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-AD4208     Input +       Input1+     Input2+       Input3+     Input4+       Input5+     Input6+       Input7+     Input8+       Input7+     Input8+       Input7+     Input8+       B8     B8				
Input disconnection detection	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 co terminals	onnection	Screwless clamping terminal block (8 terminals)		
I/O refreshing method	Free-Run refreshing	Free-Run refreshing				
	TS indicator	Output ran	ge	-10 to +10 V		
	DA2603	Output con range	version	-5 to 105% (full scale)		
		Allowable I resistance	load	5 k $\Omega$ min.		
Indicator		Output imp	bedance	0.5 Ω max.		
		Resolution	I	1/8000 (full scale)		
		Overall	25°C	±0.3% (full scale)		
		accuracy	0 to 55°C	±0.5% (full scale)		
		Conversion	n time	250 μs/point		
Dimensions	12 (W) x 100 (H) x 71 (D)	Isolation m	ethod	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 s	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 ply terminal	IOV: 0.1 A/terminal max., IOG: 0.1 A/terminal max.		
NX Unit power consumption	Connected to a CPU Unit or Communication Control Unit 1.40 W max.     Connected to a Communications Coupler Unit 1.10 W max.	I/O current	No consumption			
Weight	70 g max.			•		
Circuit layout	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 or Communication Control 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 Voltage Output Unit NX-DA2603 A1 B1 Voltage Output Unit NX-DA2603 A1 Voltage output + Voltage output + Voltage output - Voltage output - Voltage output -					

Unit name	Analog Output Unit (voltage output type)	Model	NX-DA2605	
		External connection	Screwless clamping terminal block (8	
Number of points	2 points	terminals		
I/O refreshing method	Selectable Synchronous I/O refreshing or F		1	
	TS indicator	Output range	-10 to +10 V	
	DA2605	Output conversion range	-5 to 105% (full scale)	
		Allowable load resistance	5 k $\Omega$ 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 $\Omega$ 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	<ul> <li>Connected to a CPU Unit or Communication Control Unit 1.40 W max.</li> <li>Connected to a Communications Coupler Unit 1.10 W max.</li> </ul>	I/O current consumption	No consumption	
Weight	70 g max.			
Circuit layout	NX bus connector (left) [/O power supply - [/O power supply -			
Installation orientation and restrictions	Installation orientation: • Connected to a CPU Unit or Communication Control 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 A8 B8 B8 A	Voltage Output Unit NX-DA2605 V H V2+ • IOV IOV IOG IOG • NC NC B8	Voltage output +	

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

		-			
Unit name	Analog Output Unit (voltage output type)	Model	NX-DA3603		
Number of points	4 points	External connection terminalsScrewless clamping terminal block (12 terminals)			
I/O refreshing method	Free-Run refreshing				
	TS indicator	Output range	-10 to +10 V		
	DA3603 <sup>DTS</sup>	Output conversion range	-5 to 105% (full scale)		
		Allowable load resistance	5 k $\Omega$ 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 $\Omega$ 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	<ul> <li>Connected to a CPU Unit or Communication Control Unit 1.35 W max.</li> <li>Connected to a Communications Coupler Unit 1.25 W max.</li> </ul>	I/O current consumption	No consumption		
Weight	70 g max.				
Circuit layout	NX bus connector (left) I/O power supply +	IOV Output V1+ to V4+ IOG I/O power supply + I/O power supply - NX bus connector (right)			
Installation orientation and restrictions	<ul> <li>Installation orientation:</li> <li>Connected to a CPU Unit or Communication Control Unit: Possible in upright installation.</li> <li>Connected to a Communications Coupler Unit: Possible in 6 orientations.</li> <li>Restrictions: No restrictions</li> </ul>				
Terminal connection diagram	Additional I/O Power Supply Unit A1 B1 I OV IOV 24 VDC IOV IOV IOV IOV IOV IOV IOV IOV IOV IOV IOV IOV IOV IOV IOV IOV IOS IOG A8 B8 A	Voltage Output Unit NX-DA3603 1 B1 V1+ V2+● IOV IOV IOG IOG V3+ V4+ IOV IOV IOG IOG 8 B8	Voltage output + Voltage output –		

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

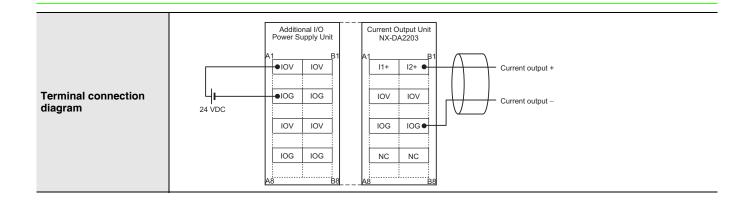
Unit name	Analog Output Unit (voltage output type)	Model	NX-DA3605		
		External connection	Screwless clamping terminal block (12		
Number of points	4 points	points terminals			
I/O refreshing method	Selectable Synchronous I/O refreshing or Free-Run refreshing				
	TS indicator	Output range	-10 to +10 V		
	DA3605	Output conversion range	-5 to 105% (full scale)		
		Allowable load resistance	5 k $\Omega$ 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 $\Omega$ 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	<ul> <li>Connected to a CPU Unit or Communication Control Unit 1.60 W max.</li> <li>Connected to a Communications Coupler Unit 1.25 W max.</li> </ul>	I/O current consumption	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 - I/O power supply -		
Installation orientation and restrictions	Installation orientation: • Connected to a CPU Unit or Communication Control 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 IOG IOG A8 B8 A A	Voltage Output Unit NX-DA3605 1 B1 V1+ V2+ IOV IOV IOG IOG V3+ V4+ IOV IOV IOG IOG 8 B8	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 max.		
		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	<ul> <li>Connected to a CPU Unit or Communication Control Unit 2.10 W max.</li> <li>Connected to a Communications Coupler Unit 1.75 W max.</li> </ul>	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 I2+ IOG I/O power supply + I/O power supply - NX bus connector (right)		
Installation orientation and restrictions	Installation orientation: • Connected to a CPU Unit or Communication Control 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) 2 points NX-DA2203

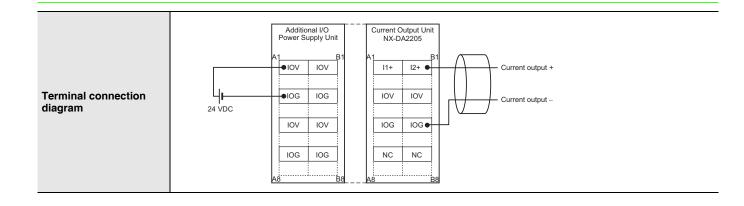
# NX-AD/DA



Linit name		Madal			
Unit name	Analog Output Unit (current output type)	Model	NX-DA2205 Screwless clamping terminal block (8		
Number of points	2 points	External connection terminals	terminals)		
I/O refreshing method	Selectable Synchronous I/O refreshing or Free-Run refreshing				
	TS indicator	Output range	4 to 20 mA		
	DA2205	Output conversion range	-5 to 105% (full scale)		
Indicator		Allowable load resistance	600 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 $M\Omega$ 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	<ul> <li>Connected to a CPU Unit or Communication Control Unit 2.10 W max.</li> <li>Connected to a Communications Coupler Unit 1.75 W max.</li> </ul>	I/O current consumption	No consumption		
Weight	70 g max.				
Circuit layout	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 or Communication Control 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

# NX-AD/DA



Unit name	Analog Output Unit (current output type)	Model	NX-DA3203		
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	4 to 20 mA		
	DA3203	Output conversion range	-5 to 105% (full scale)		
Indicator		Allowable load resistance	350 $\Omega$ max.		
		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	<ul> <li>Connected to a CPU Unit or Communication Control Unit 2.10 W max.</li> <li>Connected to a Communications Coupler Unit 1.80 W max.</li> </ul>	I/O current consumption	No consumption		
Weight	70 g max.				
Circuit layout	NX bus I/O power supply + O	AMP	Voltput 11+ to 14+ IOG I/O power supply + I/O power supply - NX bus connector (right)		
Installation orientation and restrictions	Installation orientation: • Connected to a CPU Unit or Communication Control 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. (a) (b) (c) (c) (c) (c) (c) (c) (c) (c				

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

# NX-AD/DA

Terminal connection diagram	24 VDC	Power Supply Unit A1B1A1 ●IOV IOVI —IOQ IOGI IOV IOVI IOG IOGI	ant Output Unit       IX-DA3203       B1       I+       I2+       V       IOV       OG       IOG       B+       I4+       OV       IOG       IOG	Current output + Current output –	
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		M			
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 refreshing				
	TS indicator	Output range	4 to 20 mA		
	DA3205	Output conversion range	-5 to 105% (full scale)		
Indicator		Allowable load resistance	350 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 $M\Omega$ 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	<ul> <li>Connected to a CPU Unit or Communication Control Unit 2.10 W max.</li> <li>Connected to a Communications Coupler Unit 1.80 W max.</li> </ul>	I/O current consumption	No consumption		
Weight	70 g max.				
Circuit layout	NX bus (left) I/O power supply + I/O power supply - NX bus (left) I/O power supply - I/O power supp				
Installation orientation and restrictions	Installation orientation: • Connected to a CPU Unit or Communication Control 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

# NX-AD/DA

Terminal connection diagram	24 VDC	Additional I/O Power Supply Unit A1B1 ●IOV IOV ■IOG IOG IOV IOV IOG IOG A8B8	Current Output Unit NX-DA3205 A1 B1 I1+ I2+ • IOV IOV IOG IOG I3+ I4+ IOV IOV IOG IOG A8 B8	Current output + Current output –
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# **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 Unit		Corresponding unit versions/versions		
Model	Unit version	CPU Unit	Sysmac Studio	
NX-AD	Ver.1.0	Ver.1.13	Ver.1.17	

Note: 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 an EtherCAT Coupler Unit

1	NX Unit	Corresponding unit versions/versions			
Model	Unit version	EtherCAT Coupler Unit	CPU Unit or Industrial PC	Sysmac Studio	
NX-AD	Ver.1.0	Ver.1.0	Ver.1.05	Ver.1.06	

Note: 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 an EtherNet/IP Coupler Unit

NX Unit	t	Corresponding unit			it versions/versions		
		Application with an NJ/NX/NY-series Controller *1			Application with a CS/CJ/CP-series PLC *2		
Model	Unit version			EtherNet/IP Coupler Unit	Sysmac Studio	NX-IO Configurator *3	
NX-AD	Ver. 1.0	Ver. 1.2	Ver. 1.14	Ver. 1.19	Ver. 1.0	Ver. 1.10	Ver. 1.00

Note: 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.

\*1 Refer to the user's manual for the EtherNet/IP Coupler Units for information on the unit versions of EtherNet/IP Units that are compatible with EtherNet/IP Coupler Units.

\*2 Refer to the user's manual for the EtherNet/IP Coupler Units for information on the unit versions of CPU Units and EtherNet/IP Units that are compatible with EtherNet/IP Coupler Units.

\*3 For connection to an EtherNet/IP Coupler Unit with unit version 1.0, connection is supported only for a connection to the peripheral USB port on the EtherNet/IP Coupler Unit. You cannot connect by any other path. If you need to connect by another path, use an EtherNet/IP Coupler Unit with unit version 1.2 or later.

#### **Connected to Communication Control Units**

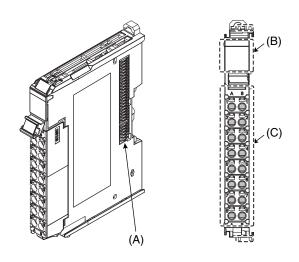
NX Unit		Corresponding unit versions/versions		
Model	Unit version	Communication Control Unit	Sysmac Studio	
NX-AD	Ver.1.0	Ver.1.00	Ver.1.24	

Note: 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**

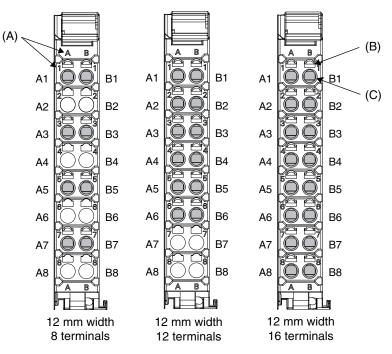
# Screwless Clamping Terminal Block Type

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.

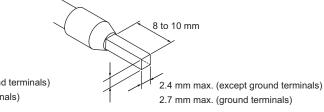
The applicable ferrules, wires, and crimping tool are given in the following table.

Terminal type	Manufacturer	Ferrule model	Applicable wire (mm <sup>2</sup> (AWG))	Crimping tool
Terminals other	Phoenix Contact	AI0,34-8	0.34 (#22)	Phoenix Contact (The figure in parentheses is the applicable wire size.)
than ground terminals		AI0,5-8	0.5 (#20)	CRIMPFOX 6 (0.25 to 6 mm <sup>2</sup> , AWG24 to 10)
leminais	erminais	Al0,5-10	1	
		AI0,75-8	0.75 (#18)	
		AI0,75-10	1	
		AI1,0-8	1.0 (#18)	
		AI1,0-10	1	
		AI1,5-8	1.5 (#16)	
		AI1,5-10		
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 <sup>2</sup> , AWG 26 to 10)
terminals		H0.34/12	0.34 (#22)	
		H0.5/14	0.5 (#20)	
		H0.5/16		
		H0.75/14	0.75 (#18)	
		H0.75/16		
		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 mm<sup>2</sup> 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 and a standard the	
Terminais		Twisted wires		Solid wire		Wire size	Conductor length (stripping length)	
Classification	Current capacity	Plated	Unplated	Plated	Unplated		(ourpping lengur)	
	2 A or less		Possible	Possible	Possible		8 to 10 mm	
All terminals except ground terminals	Greater than 2 A and 4 A or less	Possible	Not	Possible *1	Not	0.08 to 1.5 mm <sup>2</sup> AWG28 to 16		
ground terminals	Greater than 4 A	Possible *1	Possible	Not Possible	Possible			
Ground terminals		Possible	Possible	Possible *2	Possible *2	2.0 mm <sup>2</sup>	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)

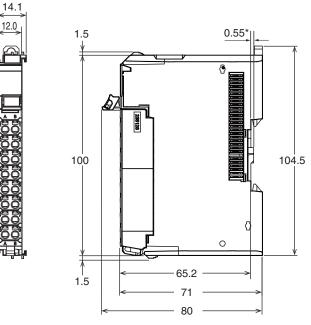
<Additional Information> If more than 2 A will flow on the wires, use plated wires or use ferrules.

#### (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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