

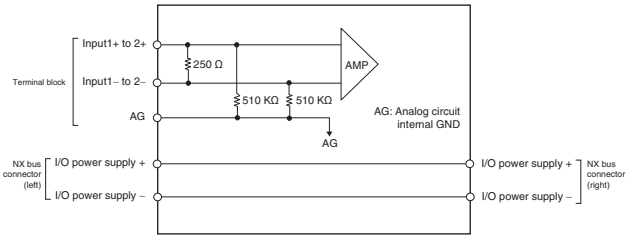
Analog I/O unit

Current input unit

Item	Specifications										
Model	NX-AD2203	NX-AD3203	NX-AD4203	NX-AD2204	NX-AD3204	NX-AD4204	NX-AD2208	NX-AD3208	NX-AD4208		
Name	Current input unit										
Input range	4 to 20 mA										
Input method	Single-ended input					Differential input					
Capacity	2 points	4 points	8 points	2 points	4 points	8 points	2 points	4 points	8 points		
Input conversion range	-5% to 105% (full scale)										
Absolute maximum rating	±30 mA										
Input impedance	250 Ω min.	250 Ω min.	85 Ω min.	250 Ω min.	250 Ω min.	85 Ω min.	250 Ω min.	250 Ω min.	85 Ω min.		
Resolution	1/8,000 (full scale)						1/30,000 (full scale)				
Overall accuracy	25°C	±0.2% (full scale)						±0.1% (full scale)			
	0 to 55°C	±0.4% (full scale)						±0.2% (full scale)			
Conversion time	250 μs/point						10 μs/point				
Dielectric strength	510 VAC between isolated circuits for 1 minute at a leakage current of 5 mA max.										
Insulation resistance	20 MΩ min. between isolated circuits (at 100 VDC)										
Isolation method	Between the input and the NX bus; Power = Transformer, Signal = Digital isolator (no isolation between inputs)										
Unit power consumption	0.90 W max.	0.90 W max.	1.05 W max.	0.90 W max.	0.90 W max.	1.05 W max.	0.90 W max.	0.95 W max.	1.10 W max.		
I/O power supply method	Supply from the NX bus					No supply					
I/O current consumption	No consumption										
Current capacity of I/O power supply terminal	0.1 A/terminal max.					Without I/O power supply terminals					
I/O refreshing method	Switching synchronous I/O refreshing and free-run refreshing	Free-run refreshing						Switching synchronous I/O refreshing and free-run refreshing			
Terminal block	Screwless push-in terminal										
Terminal type	8 terminals	12 terminals	16 terminals	8 terminals	12 terminals	16 terminals	8 terminals	12 terminals	16 terminals		
Dimensions	12(W) × 100(H) × 71(D)										
Weight	70 g max.										
Input disconnection detection	Supported										

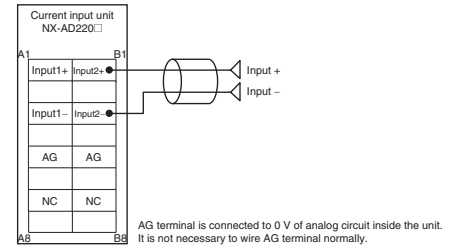
Circuit layout

NX-AD2204/NX-AD2208

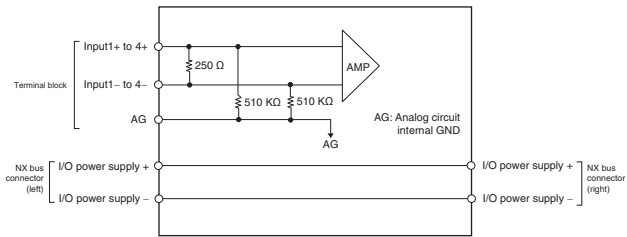


Terminal wiring

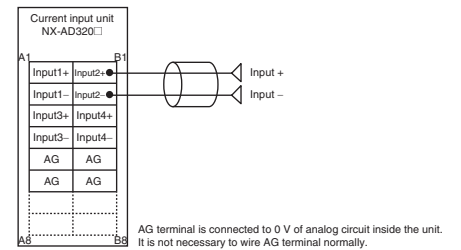
NX-AD2204/NX-AD2208



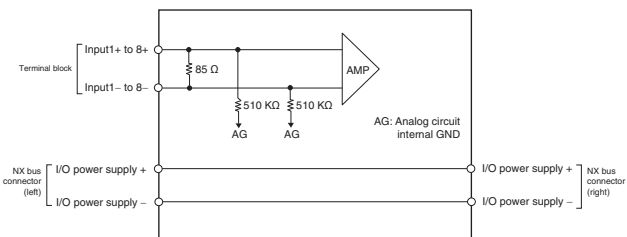
NX-AD3204/NX-AD3208



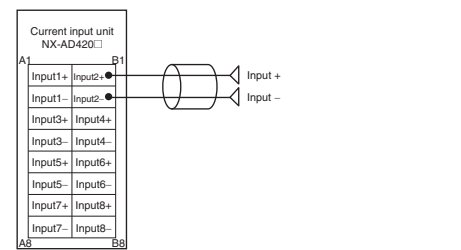
NX-AD3204/NX-AD3208



NX-AD4204/NX-AD4208



NX-AD4204/NX-AD4208



Ordering information

EtherCAT coupler unit

Type	Signal type	Specifications	Channels	Width	Model
EtherCAT communication coupler	EtherCAT slave	Up to 63 I/O units Max. 1024 bytes in + 1024 bytes out Supports distributed clock	2	46 mm	NX-ECC201

I/O unit

Digital I/O

Type	Signal type	Performance	Channels	Width	Model		
Digital input	NPN type	Standard (< 0.4 ms On/Off delay)	4	12 mm	NX-ID3317		
			8	12 mm	NX-ID4342		
			16	12 mm	NX-ID5342		
		High-speed (< 0.1 μs On/Off delay)	4	12 mm	NX-ID3343		
			TimeStamp ^{*1} function, High-speed (< 0.1 μs On/Off delay)		4	12 mm	NX-ID3344
			PNP type	Standard (< 0.4 ms On/Off delay)	4	12 mm	NX-ID3417
	8	12 mm			NX-ID4442		
	16	12 mm			NX-ID5442		
	High-speed (< 0.1 μs On/Off delay)	4		12 mm	NX-ID3443		
		TimeStamp ^{*1} function, High-speed (< 0.1 μs On/Off delay)		4	12 mm	NX-ID3444	
		Digital output		NPN type	Standard (< 0.8 ms On/Off delay)	4	12 mm
	8		12 mm			NX-OD4121	
16	12 mm		NX-OD5121				
High-speed (< 0.3 μs On/Off delay)	4		12 mm		NX-OD3153		
	TimeStamp ^{*1} function, High-speed (< 0.3 μs On/Off delay)		2		12 mm	NX-OD2154	
	PNP type		Standard (< 1.0 ms On/Off delay)		4	12 mm	NX-OD3256
8				12 mm	NX-OD4256		
16				12 mm	NX-OD5256		
High-speed (< 0.3 μs On/Off delay)			4	12 mm	NX-OD3257		
			TimeStamp ^{*1} function, High-speed (< 0.3 μs On/Off delay)		2	12 mm	NX-OD2258
			Relay contact	Normally Open, 250 VAC, 2 A	2	12 mm	NX-OC2633

*1. Please contact your OMRON sales representative for details on availability.

Analog I/O

Type	Signal type	Performance	Channels	Width	Model					
Analog input	4 to 20 mA	Single ended	1/8,000 resolution 250 μs/channel		2	12 mm	NX-AD2203			
					4	12 mm	NX-AD3203			
					8	12 mm	NX-AD4203			
					Differential		2	12 mm	NX-AD2204	
							4	12 mm	NX-AD3204	
							8	12 mm	NX-AD4204	
		1/30,000 resolution 250 μs/channel		2	12 mm	NX-AD2208				
				4	12 mm	NX-AD3208				
				8	12 mm	NX-AD4208				
				±10 V	Single ended	1/8,000 resolution 250 μs/channel		2	12 mm	NX-AD2603
								4	12 mm	NX-AD3603
								8	12 mm	NX-AD4603
	Differential		2		12 mm			NX-AD2604		
			4		12 mm			NX-AD3604		
			8		12 mm			NX-AD4604		
	1/30,000 resolution 10 μs/channel		2	12 mm	NX-AD2608					
			4	12 mm	NX-AD3608					
			8	12 mm	NX-AD4608					
			Analog output	4 to 20 mA	1/8,000 resolution 250 μs/channel		2	12 mm	NX-DA2203	
							4	12 mm	NX-DA3203	
							1/30,000 resolution 10 μs/channel		2	12 mm
	4	12 mm							NX-DA3205	
	±10 V	1/8,000 resolution 250 μs/channel							2	12 mm
							4	12 mm	NX-DA3603	
1/30,000 resolution 10 μs/channel				2	12 mm	NX-DA2605				
		4		12 mm	NX-DA3605					

Temperature input

Type	Performance	Channels	Width	Model
Temperature input	Thermocouple type B,E,J,K,L,N,R,S,T,U,WRe5-26,PLII	2	12 mm	NX-TS2101
		4	24 mm	NX-TS3101
	RTD type Pt100 (3-wire), Pt1000, Ni508.4	2	12 mm	NX-TS2201
		4	24 mm	NX-TS3201