OEMAX™ CONTROLS

Maximum Value for OEMs℠

NX7, NX70 Series Controllers Selection Guide

One Family of Programmable Logic Controllers
for Every Application and Budget

OE MAX ▸▸
Maximizing Operating Earnings for OEMs

OE MAX is a value-driven global brand offering competitive control products and performance-designed automation components developed specifically to help small independent machine builders maximize their operating earnings. OE MAX offers the most complete and competitive one-stop service for top quality, reliable components such as PLCs, distributed I/O, servo drives, operator interface panels and other industrial control products to meet the needs of original equipment manufacturers.

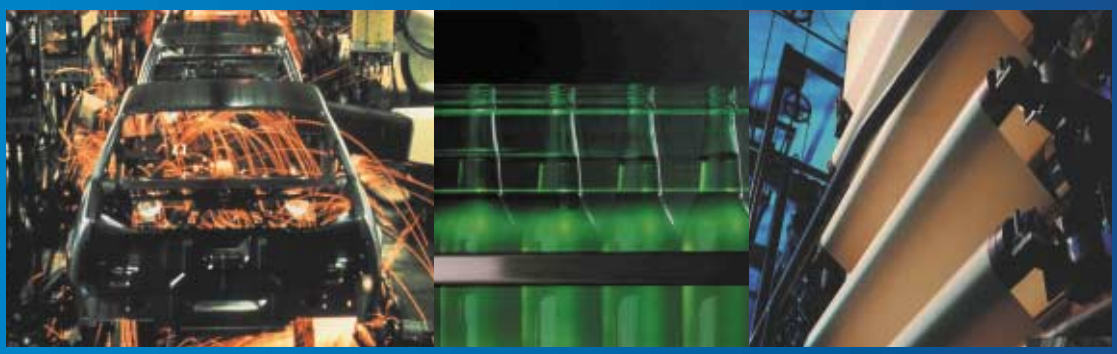
With our professional team, we search the world for products that offer the best quality for your application. We understand the importance of instilling confidence and trust in establishing long-term relationships with all our customers, regardless of size. We seek to build relationships that lead to mutual success for the benefit of our people, their families, and their communities.

OE MAX is a unique brand that delivers the best products from all over the world to you by a network of distributors who understand your control and automation needs.

OE MAX provides performance-designed automation components at a price less than you expect to pay to help independent OEMs maximize operating earnings. Moreover, OE MAX optimizes the cost of equipment and is committed to delivering the most cost-effective control components that meet the specifications for your machine.
Through our catalogs and full featured web site, you will find the most suitable automation products that meet your specific needs. OE MAX will grow to meet your needs through the continued introduction of new products and strives to be one of the best suppliers of industrial automation products.

NX Series
Programmable Logic Controllers

The NX series is a family of small, modular programmable controllers from OE MAX. They deliver power and flexibility with a wide range of communication configurations, user features and memory options. The NX series offers a breadth of controllers that satisfies a wide variety of OEM applications. This ensures you'll find a world class PLC that fits your application as easily as one that fits your budget. This integrated and ultra-compact PLC series is equipped with advanced control functions and up to 384 I/O points, easily handling most OEM applications. In addition, the NX series products have built-in real-time clocks and user-defined communication functions, such as ASCII, satisfying the diverse needs of original equipment manufacturers



All members of the NX series share a common architecture and use the same industry leading WinGPC programming software, so you don't have to reprogram or learn a new system as your needs change. With the NX series controllers, you can finally have the ideal blend of functionality and compact size, at a price that is more reasonable than you might expect. The NX7 is an all-in-one micro PLC suitable for compact machinery, offering task-specific dedicated control at a very low price. NX70 is a modular, small PLC designed to handle an extensive range of applications, expansion I/O up to 384 digital points and a wide range of optional I/O modules.

Table of Contents

NX7 Series
Micro Logic Controller

The perfect controller for small applications and small budgets. This little powerhouse is both compact and inexpensive, but it's big on performance–providing high-speed advanced networking and a full suite of control capabilities. Among the advantages of the NX7 are a compact design that takes up little panel space and fast program scan time that keeps your machines on the cutting edge.

Features of NX7S

- Control 10,14,20,28,40,48 digital I/O points
- 2 serial ports (1 RS-232C, 1 RS485 with Modbus RTU)
- Program memory size up to 2K words
- Built-in backup flash memory
- Built-in HSC, Pulse output(for TR output module only)

Features of NX7

- Basic control to 28, 48 points and up to 104 digital I/O points
- Enable 2 expansion module
- 2 serial ports (2 RS232C/RS485 with Modbus RTU)
- Program memory size up 9K words
- Built-in HSC, Pulse catch, Pulse output (for TR output module)
- Built-in real-time clock, PID function

Model Classification Series

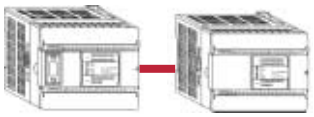
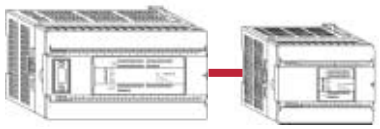
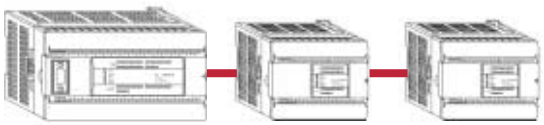
NX7S

Basic Points	Power Supply	DC IN/ Relay Out	DC IN/ TR(sink) Out
10 points	AC100/220	NX7S-10ADR	NX7S-10ADT
14 points	AC100/220	NX7S-14ADR	NX7S-14ADT
20 points	AC100/220	NX7S-20ADR	NX7S-20ADT
28 points	AC100/220	NX7S-28ADR	NX7S-28ADT
40 points	AC100/220	NX7S-40ADR	NX7S-40ADT
48 points	AC100/220	NX7S-48ADR	NX7S-48ADT

NX7

Basic Points	Power Supply	DC IN/ Relay Out	DC IN/ TR(sink) Out
28 points	AC100/220	NX7-28DDR	NX7-28ADT
28 points	DC 24V	NX7-28DDR	NX7-28ADT
48 points	AC100/220	NX7-48DDR	NX7-48ADT
48 points	DC 24V	NX7-48DDR	NX7-48ADT
Expansion	-	NX7-28EDR	NX7-28EDT

Basic I/O Configuration

Point	NX7s	Point	NX7
10 points	 Input 6 points (R0.0 to 0.5) Output 4 points (R16.0 to 16.3)	28 points	 Input 16 points (R0.0 to 1.7) Output 12 points (R16.0 to 17.3)
14 points	 Input 8 points (R0.0 to 0.7) Output 6 points (R16.0 to 16.5)	48 points	 Input 28 points (R0.0 to 3.3) Output 20 points (R16.0 to 18.3)
20 points	 Input 12 points (R0.0 to 1.3) Output 8 points (R16.0 to 16.7)	56 points	 Input 32 points (R0.0 to 1.7) (R8.0 to 9.7) Output 24 points (R16.0 to 17.3) (R2.4 to 25.3)
28 points	 Input 16 points (R0.0 to 1.7) Output 12 points (R16.0 to 17.3)	76 points	 Input 44 points (R0.0 to 3.3) (R8.0 to 9.7) Outputt 32 points (R16.0 to 3.3) (R24.0 to 25.3)
40 points	 Input 24 points (R0.0 to 2.7) Output 16 points (R16.0 to 17.7)	84 points	 Input 48 points (R0.0 to 1.7) (R8.0 to 9.7) (R12.0 to 14.7) Output 36 points (R16.0 to 17.3) (R24.0 to 25.3) (R28.0 to 29.3)
48 points	 Input 28 points (R0.0 to 3.3) Output 20 points (R16.0 to 18.3)	104 points	 Input 60 points (R0.0 to 1.7) (R8.0 to 9.7) (R12.0 to 13.7) Output 44 points (R16.0 to 18.3) (R24.0 to 25.3) (R28.0 to 29.3)

Specifications

■ Performance specifications

Item	NX7s						NX7	
	10xxx	14xxx	20xxx	28xxx	40xxx	48xxx	28xxx	48xxx
Program Memory	2K words						9K words	
Data Memory								
I/O (R)	R000.00 to R31.15 (512 Points, 32 Words) (R32 to R127 for the special functions						512 Points	
Internal relay (M)	M000.00 to M127.15 (2,048 Points, 128 Words)						2,048 Points	
Keep relay (K)	K000.00 to K127.15 (1,024 Points, 64 Words)						1,024 Points	
Data register (W)	W0000 to W2,047 (2,048 Words						2048 words (Keep data)	
Timer/Counter (TC)	256 Channels, Setting value range: 0 to 65535 TC000 to TC063: 0.01 sec time base TC064 to TC255: 0.1 sec time base						256 Channels	
Special Contact(F)	F000.00 to F015.15 (256 Points, 16 Word						256 Points	
Special Area (SR)	SR000 to SR511 (512 Words)						(512 Words)	
Basic I/O Points								
Maximum	10	14	20	28	40	48	84	104
Base I/O	10	14	20	28	40	48	28	48
No. of input	6	8	12	16	24	28	12	28
No. of output	4	6	8	12	16	20	16	20
Expansion I/O Points	—						28	28
Expansion quantity	—						2 Modules	
Communication Port	2						2	
COM1	RS-232C (D-sub 9pin)						RS-232C/RS485 (Dsub 9pin)	
COM2	RS485 (Modular type)						RS-232C/RS485(Modular)	
Modbus RTU	Yes (Com2 port)							
User Define Protocol	Yes (Com2 port)							
Special Function								
High Speed Counter	1 Ch (5KHz/2 Phase, 10KHz/1 Phase), 32Bit, 1*)							
Input Pulse Catch	4 points							
Pulse Output	2 Ch(for TR Output module), PWM/Pulse(PTO) mode, 10KHz, 32Bit, 1*)							
Real Time Clock	—						Built-in	
PID Function	—						Yes (8 loop)	
Program Backup	EEPROM		SRAM or EEPROM					
Data Backup	EEPROM		SRAM w/Battery					
Service Power(24Vdc)	200 mA		400 mA					
Mounting	DIN Rail or Panel							
Dimension(W*H*D)	100*90*80				146*90*80		100*90*80	146*90*80

*1 : F/W Version 2.0 이상에서만 32 bits 가능

*2 : NX7s 의 경우 Timer/Counter 의 Back up 이 일부만 지원됨 (상세내용은 매뉴얼 참조)

Specifications *continued*

■ General specifications

Item	Specifications
Power voltage	110V ac, 220V ac (50 to 60 Hz) free voltage
Allowed momentary power failure	20 ms or less
Operating temperature	0 to 55°C
Storage temperature	-10 to 75°C
Operating humidity	30 to 85%, Non-condensing
Storage humidity	30 to 85%, Non-condensing
Vibration immunity	Frequency 16.7 Hz, 3 mm peak, 2 hours per axis (X, Y, Z)
Shock immunity	10 g, two times per each X, Y, Z direction
Noise immunity	Noise voltage 1500 Vp-p with 100 ns to 1μs pulse width (The tests are based on our company's rule.)
Isolation resistance	20 MΩ or more at 500 mega V dc between ac external terminal and frame ground (FG) terminals.
Withstand voltage	1500V ac for 1 minute between the ac external terminal and frame ground (FG) terminal
Grounding	3-type grounding or more
Ambience	No corrosive gas, no excessive dust
Structure	Open, wall-mounted type
Value retention	Up to 10 days at 25°C (retains retentive relay values)

■ Power specifications

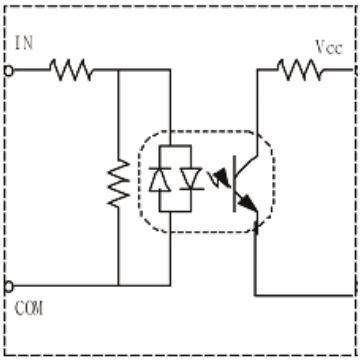
AC	Rated voltage	110V to 220V ac, free voltage
	Voltage range	85 to132V ac, 170 to 264V ac
	Frequency	47 to 63 Hz,
	Power consumption	Max. 33 Watts
	Output current capacity	Internal: 2.0A at 5V External (for services) : 0.4A at 24V
DC	Rated voltage	24V dc
	Voltage range	21.6 to 26.4V dc
	Output current	Internal: 2.0A at 5V, External: 0.4A at 24V (direct connection)

Specifications *continued*

■ Input specifications

Item		DC Input
Rated voltage		12 to 24V dc input
Voltage range		10.8 to 26.4V
Max. input current		10 mA or less
Min. on voltage/current		10.0V or more/3.0 mA or more
Max. off voltage/current		5.0V or less/0.6 mA or less
Input impedance		Approx. 3.6 KΩ
Response time	Off → On	2 ms or less
	On → Off	2 ms or less
Polarity		No polarity
Common method		8 points/COM, 16 points/COM

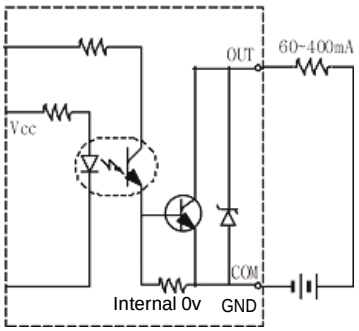
Internal circuits (dc input)



■ Output specifications

Item		Transistor output
Rated load voltage		12 to 24V dc
Load voltage range		10 to 30V dc
Polarity		Sink Type, NPN
Max. load current		0.4A/point, 1A/COM
Response time	Off → On	10 ms or less
	On → Off	10 ms or less
Common method		1, 4, 6 points/COM

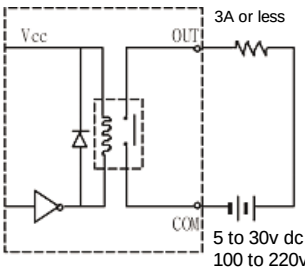
Internal circuits (transistor output)



10 to 30v dc
External power supply

Item		Relay output
Rated load voltage		250V ac, 30V dc
Load voltage range		85V to 264V ac
Polarity		No polarity
Max. load current		2A/point, 6A/COM
Response time	Off → On	10 ms or less
	On → Off	10 ms or less
Common method		1, 4, 6 points/COM

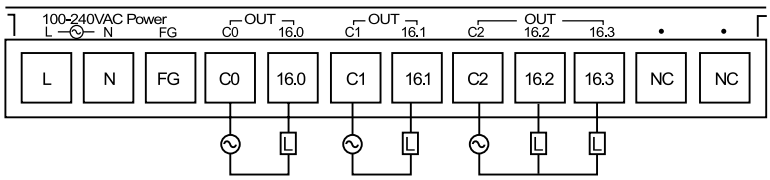
Internal circuit (relay output)

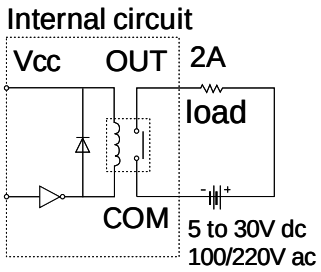


5 to 30v dc or
100 to 220v ac

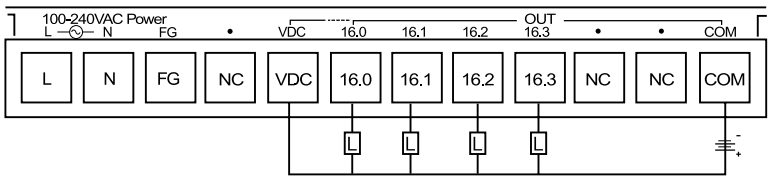
Output Wiring Diagrams

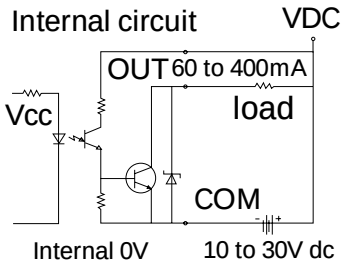
NX7s-10ADR Output Wiring Diagrams



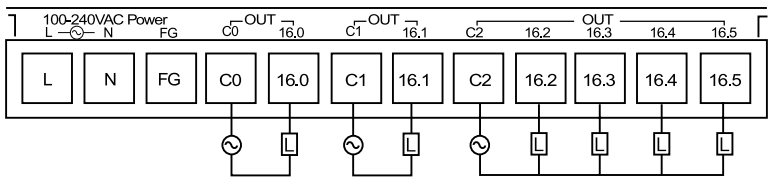


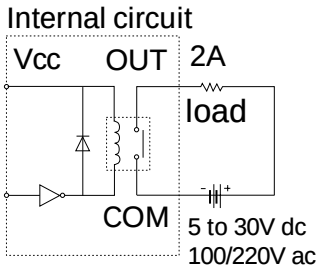
NX7s-10ADT Output Wiring Diagrams





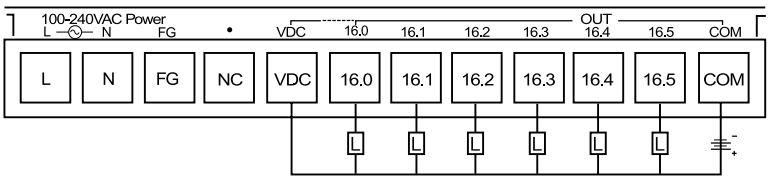
NX7s-14ADR Output Wiring Diagrams

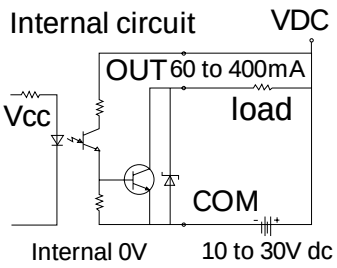




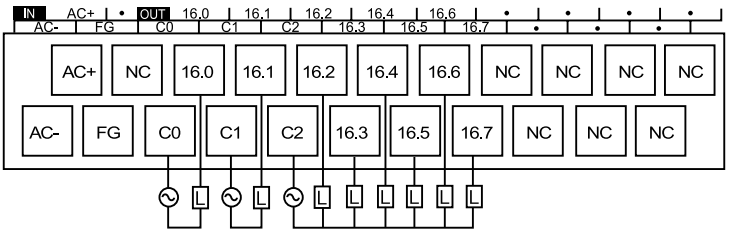
Output Wiring Diagrams *continued*

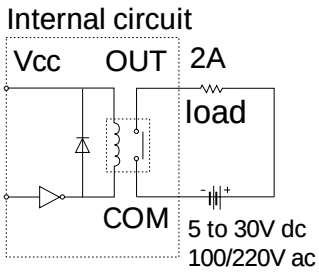
NX7s-14ADT Output Wiring Diagrams



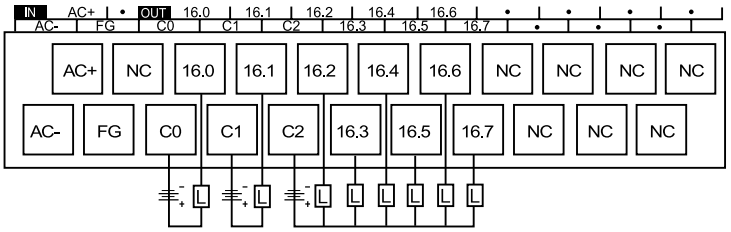


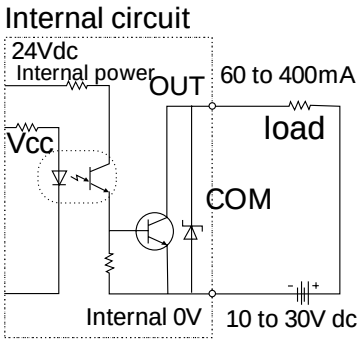
NX7s-20ADR Output Wiring Diagrams



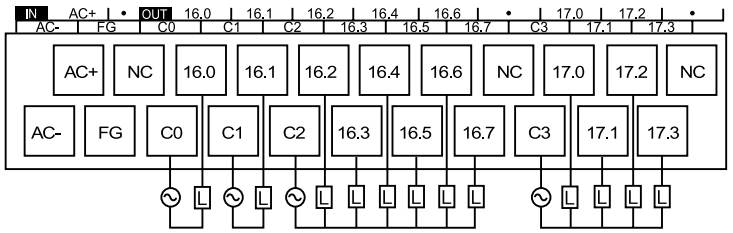


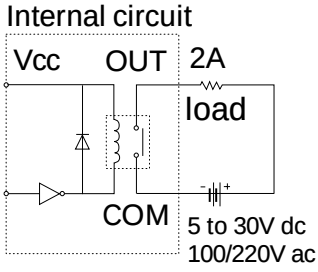
NX7s-20ADT Output Wiring Diagrams





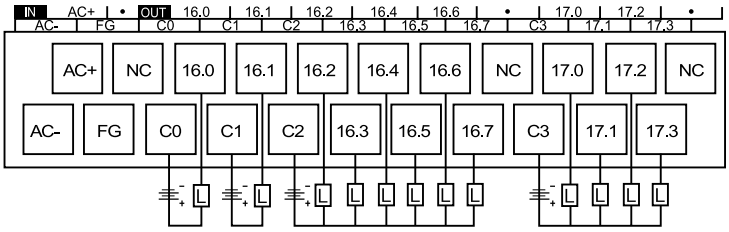
NX7-28ADR, NX7s-28ADROutput Wiring Diagrams



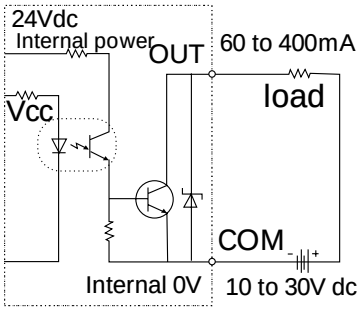


Output Wiring Diagrams *continued*

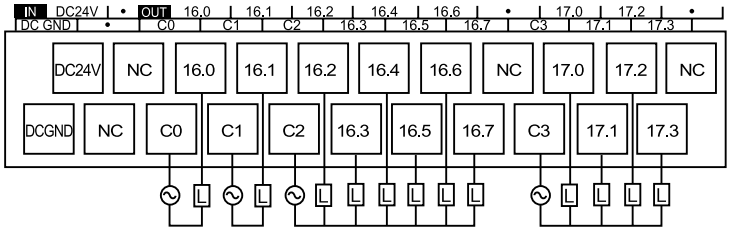
NX7-28ADT, NX7s-28ADT Output Wiring Diagrams



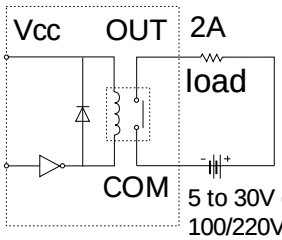
Internal circuit



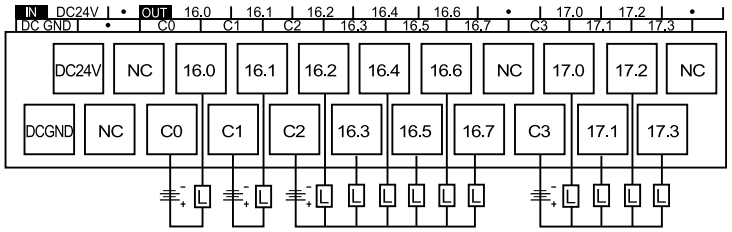
NX7-28DDR Output Wiring Diagrams



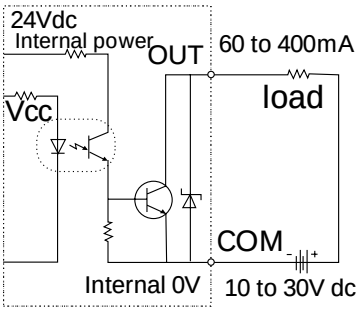
Internal circuit



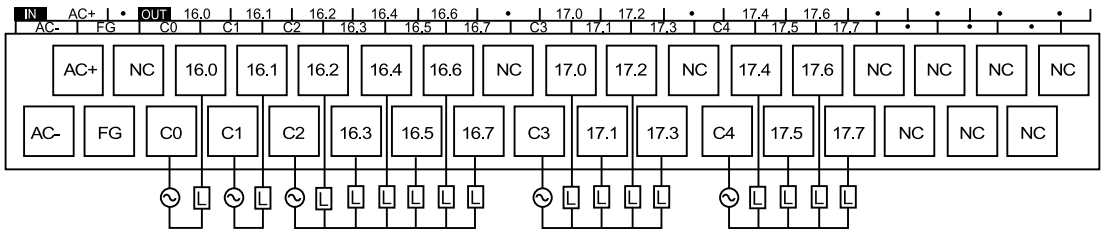
NX7-28DDT Output Wiring Diagrams



Internal circuit

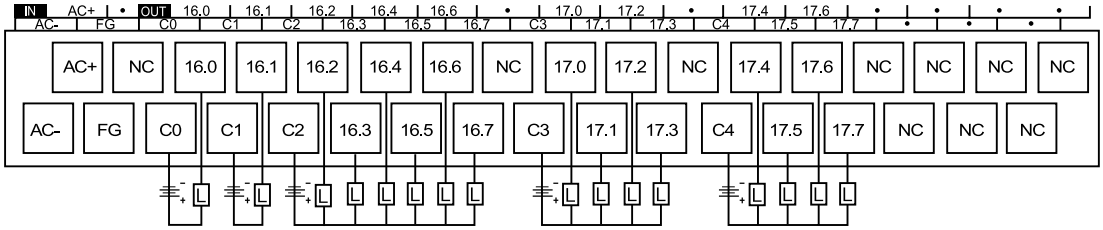


NX7s-40ADR Output Wiring Diagram

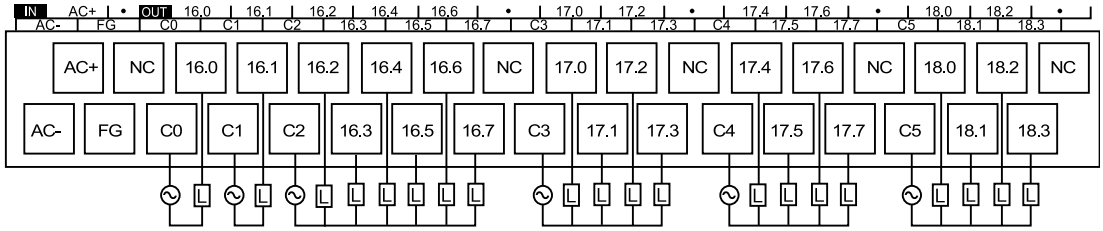


Output Wiring Diagrams *continued*

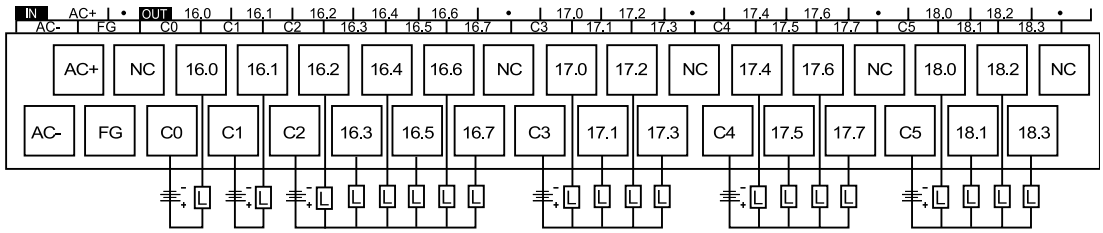
NX7s-40ADT Output Wiring Diagram



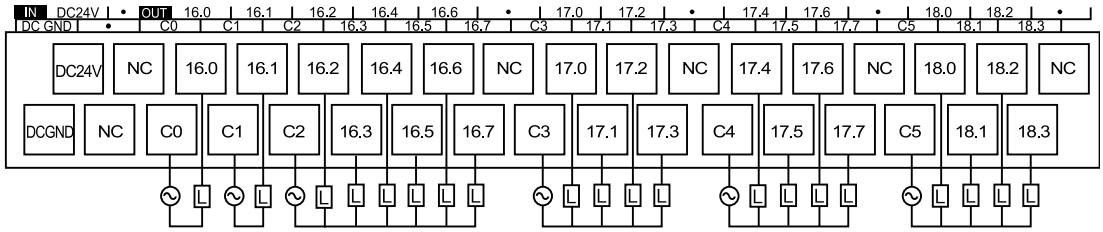
NX7-48ADR, NX7s-48ADR Output Wiring Diagram



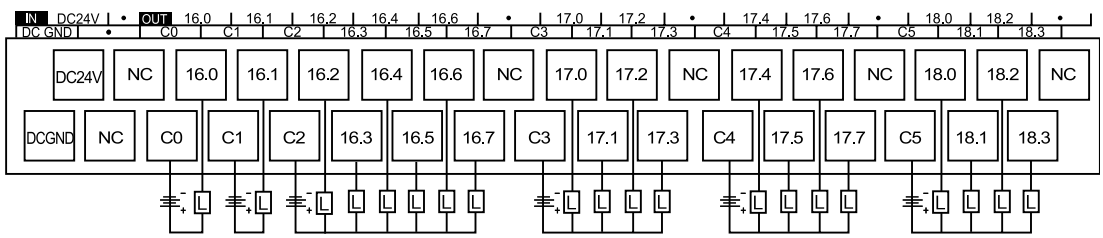
NX7-48ADT, NX7s-48ADT Output Wiring Diagram



NX7-48DDR Output Wiring Diagram

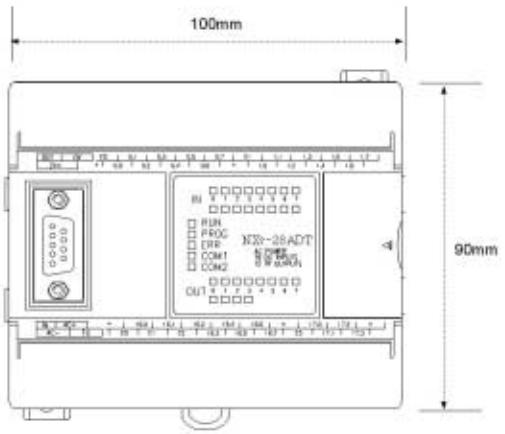


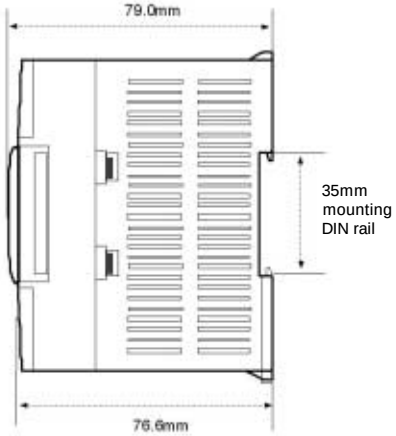
NX7-48DDT Output Wiring Diagram

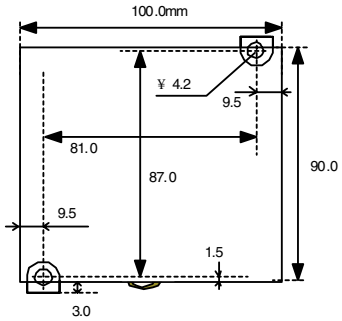


Product Dimensions

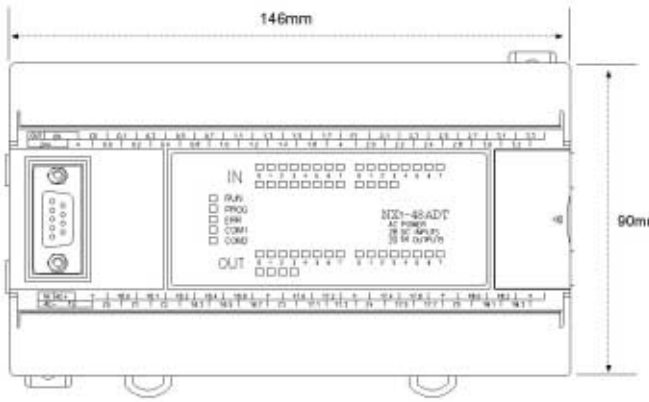
10 to 28-points PLC

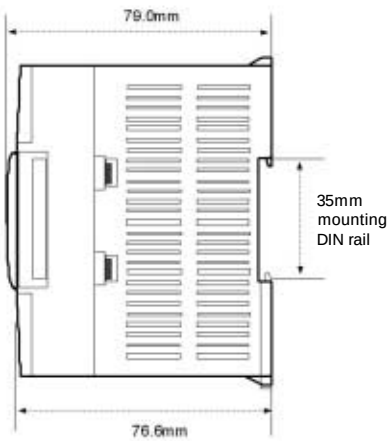


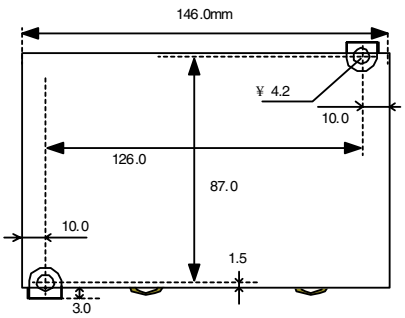




40 to 48-points PLC







Summary of Product Specifications

■ Base Controllers

Catalog Number	Input Power	I/O specifications	Remarks
NX7-28ADR	100 to 240V ac power supply	16-point dc input 12-point relay output	• Built-in 9k steps memory • Several μs per step processing speed • Built-in 1 HSC input channel • Built-in 2 pulse output channels built in • 2 communication ports • Expandable to up to two expansion modules (NOTE: Some relevant contacts are unavailable when HSC input or pulse output channels are used.)
NX7-28ADT		16-point dc input 12-point transistor output	
NX7-48ADR		28-point dc input 20-point relay output	
NX7-48ADT		28-point dc input 20-point transistor output	
NX7-28DDR	24V dc power supply	16-point dc input 12-point relay output	
NX7-28DDT		16-point dc input 12-point transistor output	
NX7-48DDR		28-point dc input 20-point relay output	
NX7-48DDT		28-point dc input 20-point transistor output	
NX7s-10ADR	100 to 240V ac power supply	6-point dc input 4-point relay output	• Built-in 2k steps memory • Several μs per step processing speed • Built-in 1 HSC input channel • Built-in 2 pulse output channels built in • 2 communication ports COM1 : RS232C COM2 : RS485 • Expansion unsupported (NOTE: Some relevant contacts are unavailable when HSC input or pulse output channels are used.)
NX7s-10ADT		6-point dc input 4-point transistor output	
NX7s-14ADR		8-point dc input 6-point relay output	
NX7s-14ADT		8-point dc input 6-point transistor output	
NX7s-20ADR		12-point dc input 8-point relay output	
NX7s-20ADT		12-point dc input 8-point transistor output	
NX7s-28ADR		16-point dc input 12-point relay output	
NX7s-28ADT		16-point dc input 12-point transistor output	
NX7s-40ADR		24-point dc input 16-point relay output	
NX7s-40ADT		24-point dc input 16-point transistor output	
NX7s-48ADR		28-point dc input 20-point relay output	
NX7s-48ADT		28-point dc input 20-point transistor output	

Summary of Product Specifications *continued*

Expansion Modules

Catalog Number	Input Power	I/O specifications	Remarks
NX7-28EDR	24V dc power supply	16-point dc input 12-point relay output	• 16-point 24V dc input • 12-point relay output 2A per point
NX7-28EDT	24V dc power supply	16-point dc input 12-point transistor output	• 16-point 24V dc input • 12-point transistor output 4A per point

Programming Software

Catalog Number	Specifications	Remarks
WinGPC (Windows)	Allows you to perform the following tasks on a remote computer. • PLC program editing anf monitoring • file management • Program back up • online editing (instruction change only) • error and status check-up • network status check-up • I/O mappinging • Itime chart monitioring	For Windows 95/98/ 2000/NT

Cables

Catalog Number	Specifications	Remarks
NX_CBLCPU02	PLC to PC communication (WinGPC) cable length : 2m	Communication cable for both RC232C and RS485
NX_CBLCPU05	Same functions PLC to PC communication (WinGPC) cable length : 5m	

NX70 Series
Small Logic Controller

Whatever your control needs are, you will find an answer with the NX70 series. The NX70 is filled with features and options designed to handle an extensive range of OEM applications. Advantages of the NX70 include: Scalable program memory and backplane options to ensure you only buy what you need. A wide range of optional I/O modules to match your machines' unique specifications. Run time editing for faster machine start-up, commissioning and process improvements, without costly down-time. Best of all, you get all this functionality and quality at a really great price.

Features

- Fast, powerful processors
  High speed basic instructions-performance-0.2μsec/STEP
- Control up to 384 digital I/O points
  The 12-slot NX70 allows up to 384 points (192 points using terminal blocks)
- Various I/O types and specialty modules
  Digital In : 24V dc (16 point, 32 point), 110V ac, 220V ac
  Digital Out : relay, transistor (16 point, 32 point), SSR, combo I/O
  Special I/O: A/D (8Ch,4Ch), D/A (4Ch, 2Ch), RTD (4Ch), TC (4Ch), PULSE (4Ch HSC)
  SCU (2Ch Serial Data Comm.) and link network
- Range of I/O base options (up to 12 slot)
  When configuring a system, PLC NX Series enables you to choose a backplane from 2, 3, 5, 6, 8, 10, and 12 slots
- High capacity programming and memory backup option
  Program memory size is from 9.6k words (NX70-CPU70P1) up to 20k words (for NX70-CPU70P2). Built-in flash EEPROM retains all ladder logic
- Built-in PID capabilities
  Supports 8-loop PID controls (Only for NX70-CPU70P2 module)
- Built-in RTC (Real Time Clock)
  Built-in real time clock supports programming by time and date. (Only for NX70-CPU70P2 module)
- Built-in RS 232C and RS 485, 2port (NX70-CPU70p2 module)
  Two communication channels for simple connectivity to computers, operator interface, modem and other controllers to exchange large volumes of data with high speed. COM2 port supports user defined communications to connect you to barcode readers, inverters, modbus slave, or servos. (Binary communications available)
- Superior diagnostics
  Self-diagnostics to minimize system errors and to maximize diagnostic efficiency
- WinGPC programming software
  WinGPC programming software lets you create, modify and monitor CPU, forced I/O, I/O configuration. It is a powerful, easy-to-use tool for program upload/download

NX70 Series Small Logic Controller

System Configuration

Processor Module

- NX70-CPU70p1
  9.6k words
  1 Comm. port
- NX70-CPU70p2
  20k words
  2 Comm. ports

Discrete Module

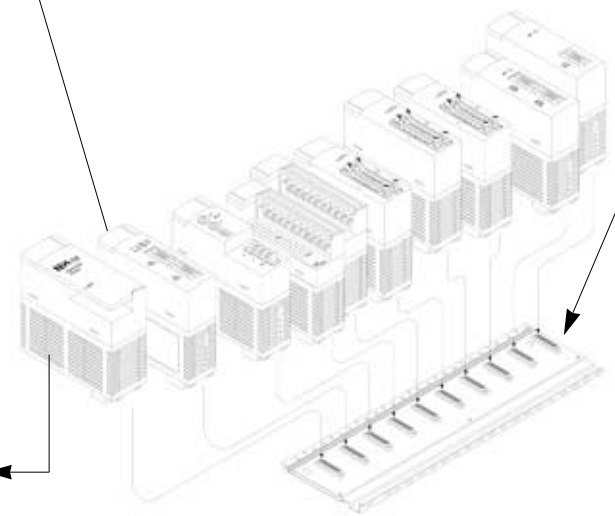
- 8 points I/O module
- 16 points I/O module
- 32 points I/O module
- 8 points input, 8 points output combo module
- 16 points input, 16 points output combo module

Analog Module

- 4, 8 channel A/D module
- 2, 4 channel D/A module
- 4 channel RTD module
- 4 channel TC module

Special Module

- 1,2,4 channel HSC module
- 4 channel Pulse output moduel
- Serial Communication module
- Multi-Wire Link module



Power Supply Module

- AC Type
  1) NX70-POWER1
  (110/220V input, free voltage)
  3.5A at 5V, 0.3A at 24V
  2) NX70-POWER2
  (110/220V input, free voltage)
  4.5A at 5V
- DC Type
  1) NX70-PWRDC
  (24V dc input)
  4.5A at 5V

* I/O Backplane

- 2-slot type
- 3-slot type
- 5-slot type
- 6-slot type
- 8-slot type
- 10-slot type
- 12-slot type

Basic Configuration and I/O Control Points

■ 2-Slot Type

up to 32 points with 16-point I/O
up to 64 points with 32-point I/O

■ 3-Slot Type

up to 48 points with 16-point I/O
up to 96 points with 32-point I/O

■ 5-Slot Type

up to 80 points with 16-point I/O
up to 160 points with 32-point I/O

■ 6-Slot Type

up to 96 points with 16-point I/O
up to 192 points with 32-point I/O

■ 8-Slot Type

up to 128 points with 16-point I/O
up to 256 points with 32-point I/O

■ 10-Slot Type

up to 160 points with 16-point I/O
up to 320 points with 32-point I/O

■ 12-Slot Type

up to 192 points with 16-point I/O
up to 384 points with 32-point I/O

■ Flexible System Configuration: 7 Types of Backplane (2-, 3-, 5-, 6-, 8-, 10- and 12-Slot)

The NX70 PLC has 7 types of backplane (2-, 3-, 5-, 6-, 8-, 10 and 12-slot type), providing you with very flexible I/O configuration.
Backplane, I/O, power supply and specialty modules are available regardless of processor type.

■ Number of Slots

The last 2 digits of the catalog number of a backplane (for example, 12 in NX70-BASE12) indicate the total number of I/O and specialty modules that can be mounted.

■ Maximum of 384 I/O Control Points

With 12-slot NX70 PLC, you can use up to 384 I/O points (using 32-point module).
With terminal block type PLC, up to 192 points are available (using 16-point module).
The NX70 PLC is not expandable to other racks.

Processor Module (NX70-CPU70p1, NX70-CPU70p2)

The NX70 processor module combines high speed with multi-functionality in a compact size. It provides convenient programming capabilities with program memory of 9.6k words (20k words for NX70-CPU70p2) and a fast processing speed of 0.2 μs per instruction.

NX70-CPU70p1
- 9.6K word memory
- 1 port(RS232/RS485)
- Battery and Flash memory backup

NX70-CPU70p2
- 20K word memory
- 2 port(RS232/RS485)
- Flash ROM backup
- User defined protocol
- Built-in RTC
- PID

Features

1. High-speed processing
   With the high-speed IC, the NX70 processor module processes basic instructions at a speed of 0.2 μs per step.
2. Runtime Editing
   The NX70-CPU70px module allows you to modify instruction while operating.
3. Built-In Real Time Clock (RTC)
   Built-in real time clock supports programming by time and date. (Supported only for the NX70-CPU70p2 module.)
4. High-capacity program memory and memory backup
   The CPU70px module allows you to program up to 20K words for NX70-CPU70p2, and 9.6k words for NX70-CPU70p1. Built-in flash memory allows you to save programs separately.
5. Self-diagnostics
   Self-diagnostics allows you to minimize system errors and maximize diagnostic efficiency.
6. WinGPC software
   WinGPC software lets you create, modify CPU and forced I/O configurations. It is a powerful, easy-to-use tool for program unload/download.
7. Supports various I/O types and special modules
   The CPU70px processor module supports 24V dc input (16/32 points), 110V ac input, 220V ac input, relay output, transistor output (16/32 points), SSR output, A/D (4 channels), D/A (4 channels), RTD (4 channels), TC (4 channels), high-speed counter, and SCU.
8. Various types of backplane (up to 12 slots)
   When configuring a system using an NX70 series PLC, you can choose a backplane from 2, 3, 5, 6, 8, 10, and 12 slot types, providing you with maximum system configuration flexibility.
9. Control up to 384 I/O points
   With 12-slot processor module, you can use up to 384 I/O points (with terminal block type, 192 points). NX70 series PLC is not expandable. That is, you must replace the backplane if you want to expand the configuration of an existing system.
10. Built-in RS232C/RS485 ports (NX70-CPU70p2 module)
    With two built-in communication ports, the CPU70p2 module allows you to connect directly to computers or touch panels and exchange a high volume of data at high speed. The COM2 port supports a simple user-defined communication, and allows you to connect to barcode readers, inverters, or servo motors. (Binary communication is available.)

Processor Module (NX70-CPU70p1, NX70-CPU70p2) *continued*

■ Specifications

Processor Type		NX70-CPU7p1	NX70-CPU7p2
Control method		Stored program, cyclic operation	
Number of I/O		384 points (32-point module/12 slots)	
Instructions	Basic	28 types	
	Advanced	150 types	
Process speed	Basic	0.2 μs per step	
	Advanced	1.0 to several tens of μs per step	
Program memory		9.6k words	20k words
Data memory	Local I/O(R)	R0.0 to R127.15 (2,048 points)	
	Link contact(L)	L0.0 to L63.15 (1,024 points)	
	Internal contact(M)	M0.0 to M127.15 (2,048 points) (Note: Available as link contact for NX70-CPU70p2, 64 words)	
	Keep contact(K)	K0.0 to M127.15 (2,048 points)	
	Special contact(F)	SR000 to SR511 (512 words)	
	Timer / Counter (TC or TIM)	256 channels (Timer + Counter), Set value range: 0 to 65535 Timer: 0.01 second: CH000 to CH063 (64 channels), 0.1 second: CH064 to CH255 (192 channels) Counter: CH000 to CH255 (256 channels)	
	Data register(W)	W0000 to W2047 (2,048 words)	W0000 to W2047, W3072 to W5119 (4,096 words)
	Special register(SR)	SR000 to SR511(512 words)	
Real time clock		Not applicable	Year, Month, Date, Hour, Minute, Second, Day of the week
Communications	Port 1	Supports both RS232C and RS485, 4800/ 9600/ 19200/ 38400 bps	
	Port 2	Not applicable	Supports both RS232C and RS485, 4800 to 38400 bps Supports a user-defined protocol
Backup using flash memory		built-in processor module	

. Keep contact (K), data register (W), and counter's preset value register retain their last values before power was removed.
. The super capacitor in the processor module backups all user programs and specific registers for up to 48 hours, even in the event of a power failure.

■ General Specifications

Temperature	Operating	0 ℃ to +55 ℃ (32 °F to 131 °F)
	Storage	-25 ℃ to +70 ℃(-13 °F to °F 158)
Humidity	Operating	30 to 85% RH (Non-condensing)
	Storage	30 to 85% RH (Non-condensing)
Withstand voltage		1500V ac for 1 minute between I/O terminal (ac) and frame ground (power supply module) 1500V dc for 1 minute between I/O terminal (dc) and frame ground (power supply module)
Isolation resistance		10 M Ω or more at 500 mega V dc between I/O terminal (ac) and frame ground (power supply module)
Vibration immunity		10 to 55 Hz 1 sweep per minute, 0.75 mm peak to peak, 10 minutes per axis (X, Y, Z)
Shock immunity		15 g peak acceleration (11 ms duration) 3 times, each X, Y, Z direction
Noise immunity		1500 Vp-p with 50 ns to 1 μs pulse width (generated by noise simulator)
Ambience		No corrosive gases, no excessive dust

Power Supply Module

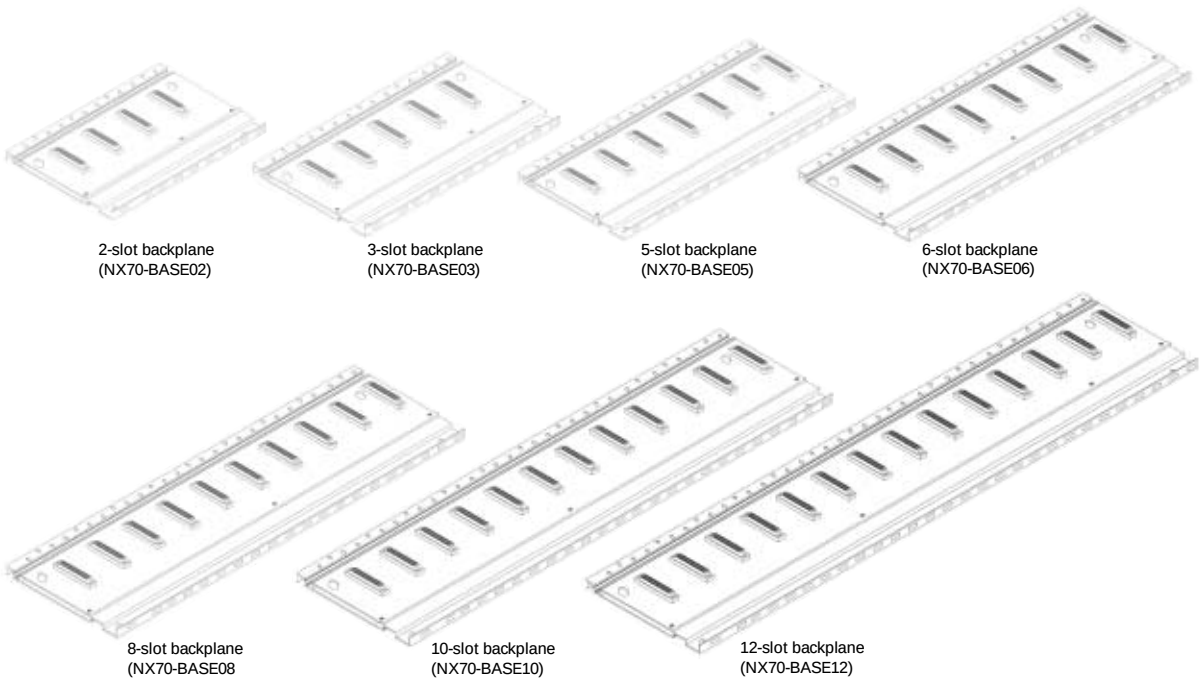
■ Specifications

Catalog number	NX70-POWER1	NX70-POWER2
Rated input voltage	110 to 220V ac, free voltage	
Input voltage range	85 to 264V ac	
Input power frequency	47 to 63 Hz	
Inrush current	20A or less	
Rated output current at 5V	3.5A at 5V	4.5A at 5V
Rated output current at 24V	0.3A at 24V	Not applicable

Catalog number	NX70-PWRDC
Rated input voltage	24V dc
Input voltage range	24V dc ± 10%
Rated output current	4.5A at 5V

Power Supply Module

I/O Backplane

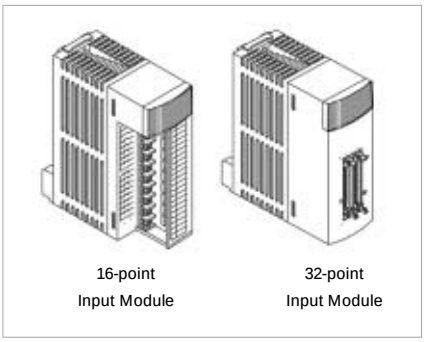


NOTE The last 2 digits of the catalog number of a backplane (for example, 12 in NX70-BASE12) indicates the total number of I/O and specialty modules that can be mounted.

Discrete Input Module

■ Features

- 16-point and 32-point input modules
- Both of + and - commons are available for the DC input type.
- Status display LED
- Photocoupler isolation available for all module types.
- The 32-point connector type provides higher input point density.



16-point Input Module　　32-point Input Module

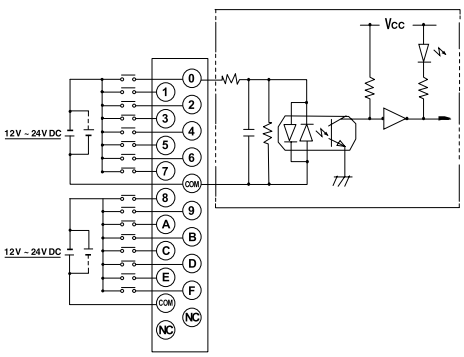
■ Specifications

Input type		DC Input				AC Input	
Catalog number		NX70-X16D	NX70-X16D1	NX70-X32D	NX70-X32D1	NX70-X16A110	NX70-X16A220
Input point		16points		32points		16points	
Rated input voltage		12 to 24V dc	24V dc	12 to 24V dc	24V dc	100 to 120V ac	200 to 240V ac
Voltage range		10.2 to 26.4V dc	21.6 to 26.4V dc	10.2 to 26.4V dc	21.6 to 26.4V dc	85 to 132V	170 to 264V ac
Max. input current		10 mA or less				20 mA or less	
Operation voltage	On	9.6V or more	20V or more	9.6V or more	20V or more	80V or more	160V or more
	Off	2.5V or less	7V or less	2.5V or less	7V or less	30V or less	50V or less
Input impedance		Approx. 3K Ω				Approx. 15K Ω	Approx. 20K Ω
Response time	Off→On	2.0 ms or less				15 ms or less	
	On→Off	2.0 ms or less				15 ms or less	
Internal current consumption		<50mA		<90mA		<80mA	
Common method		8 points per common (Both of+ and - commons are available)					
External connection method		Terminal block(M3.0)		Two 20-pin connector		Terminal block(M3.0)	
Option		Not applicable		NX70_CBLDC expansion cables		Not applicable	

■ Wiring Diagram

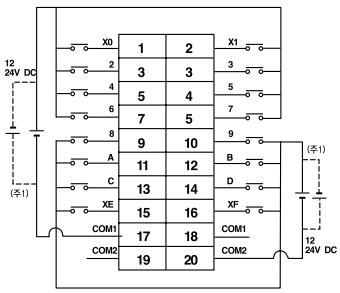
Note The numbers (1~20) in the following diagram (NX70-X32D, NX70-X32D1) are the numbers printed on the front of the product.

NX70-X16D NX70-X16D1



(Note 1) The input voltage for the NX70-X16D1 module is 24V dc.

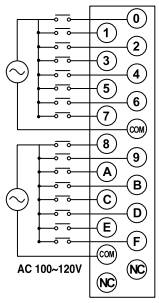
NX70-X32D NX70-X32D1



※ The connectors (I) and (II) are positioned in opposite directions. Please use caution prior to connecting.

(Note 1) The input voltage for the NX70-X32D1 module is 24V dc.

NX70-X16A110 NX70-X16A220

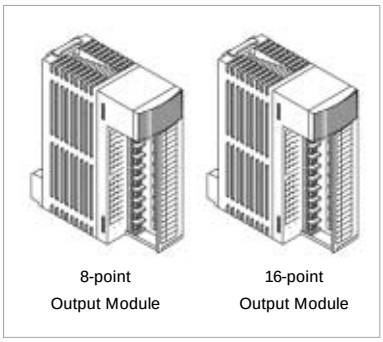


(Note 1) The input voltage for the NX70-X16A220 module is 200 to 240V ac.

Discrete Output Module-(1)Relay, SSR

Features

- 8-point, 16-point output module
- Status display LED
- Photocoupler isolation is available for all module types

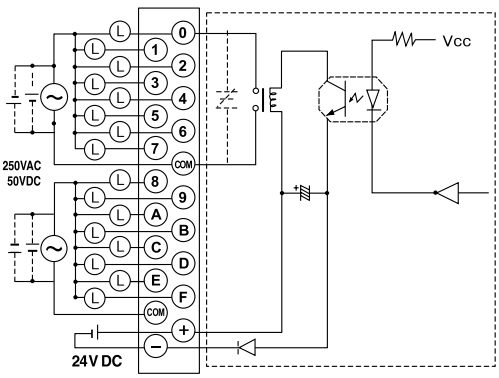
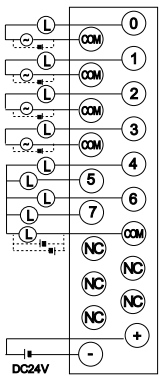
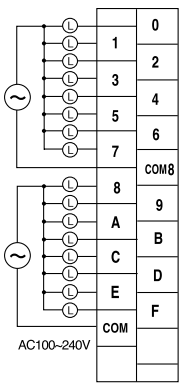


8-point Output Module　　16-point Output Module

Specifications

Output type		Relay			SSR
Catalog number		NX70-Y16R	NX70-Y16RV	NX70-Y8R	NX70-Y16SSR
Output point		16points		8points	16points
Isolation method		Photo coupler			SSR
Rated load voltage		250V ac 30V dc			100V to 240V ac
Rated load voltage range		85V ac 264V dc			85V to 264V ac
Max. load current/com		1A per point		3A per point	0.5A per point, 2A per common
Response time	Off→On	10ms or less			1 ms or less
	On→Off	10ms or less			0.5CYCLE + 1ms or less
Internal current consumption(5V)		100mA		60mA	250mA
Surge absorber		NA	Varistor	Varistor	
Rated fuse		None			3.0A
Common method		8points per common		1points x 4, 4 points x1	8 points per common
Status Display		LED(NOTE : The 32 points for conversion are displayed every 16 points)			
External connection method		Terminal block (M 3.0)			

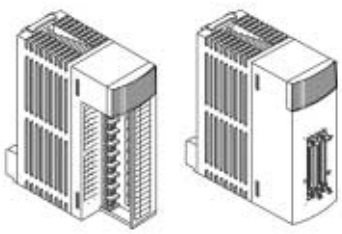
Wiring Diagram

NX70-Y16R NX70-Y16RV	NX70-Y8R	NX70-Y16SSR
		

Discrete Output Module-(2)Transistor

■ Features

- 16-point, 32-point output module
- Status display LED
- Photocoupler isolation is available for all module types
- The 32-point connector type provides higher output point density.

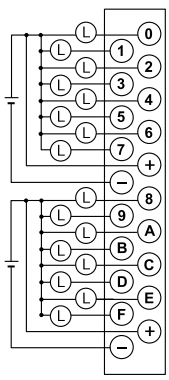
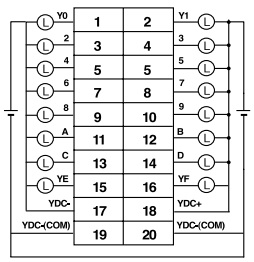
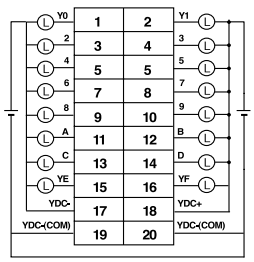


16-point Output Module　　32-point Output Module

■ Specifications

Output type		Transistor		
		NPN		PNP
Catalog number		NX70-Y16T	NX70-Y32T	NX70-Y32P
Output point		16points	32points	
Isolation method		Photocoupler		
Rated load voltage		12V to 24V dc	12V to 24V dc	
Rated load voltage range		10V to 30V dc	10V to 30V dc	
Max. load current		0.6A per points	0.4A per points	
Response time	Off → On	1 ms or less		
	On → Off	1 ms or less		
Internal current consumption(5V)		80mA	140mA	
Surge absorber		Zener Diode		
Rated fuse		None		
Common method		8points per common (-)	16points per common(-)	16points per common(+)
Status Display		LED(NOTE : The 32 points for conversion are displayed every 16 points)		
External connection method		Terminal block (M 3.0)	Two 20-pin connectors	
Option		Not applicable	Two 1.5m NX70_CBLTR expansion cables	

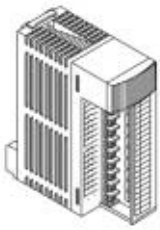
■ Wiring Diagram

NX70-Y16T	NX70-Y32T	NX70-Y32P
	 ※ The connectors (I) and (II) are positioned in opposite directions. Please use caution prior to connecting.	 ※ The connectors (I) and (II) are positioned in opposite directions. Please use caution prior to connecting.

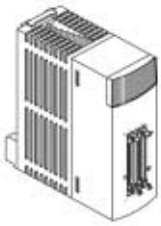
Discrete Combo I/O Module

■ Features

- 16-point and 32-point Combo I/O modules
- Both of + and - commons are available for the DC input type.
- Status display LED
- Photocoupler isolation available for all module types.
- The 32-point connector type provides higher input point density.



8-point dc input
8-point relay output
Combo I/O module

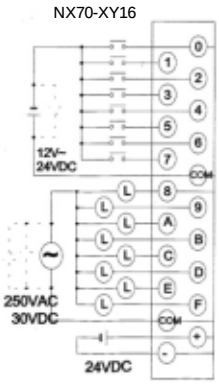
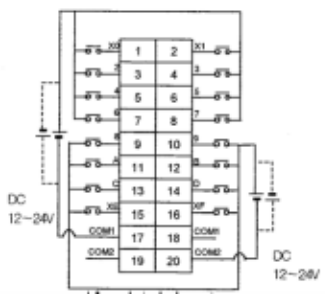
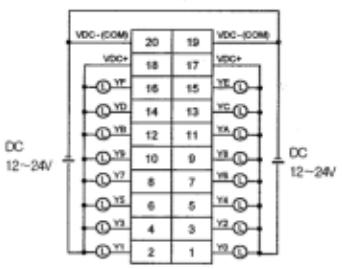


16-point dc input
16-point TR output
Combo I/O module

■ Specifications

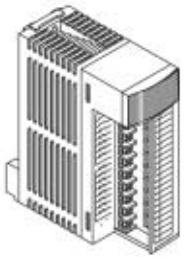
Product name		16-point Discrete Combo I/O Module (Combing dc input and relay output)		32-point Discrete Combo I/O Module (Combing dc input and transistor output)	
Catalog number		NX70-XY16		NX70-XY32	
I/O points(16 points)		8 dc input points	8 relay output points	16 dc input points	16 TR output points
Isolation method		Photocoupler		Photocoupler	
Rated input voltage		12 to 24V	Not applicable	12 to 24V	Not applicable
Voltage range		10.2 to 26.4V	Not applicable	10.2 to 26.4V	10 to 30V dc
Max. input current		10mA or less	Not applicable	10mA or less	Not applicable
Rated voltage/current		Not Applicable	250V ac, 30V dc,1A per point	Not Applicable	12 to 24V dc,0.4A per point
On voltage/On current		9.6V or less / 4mA or less	Not applicable	9.6V or less / 4mA or less	Not applicable
Off voltage/Off current		2.5V or less / 1.5mA or less	Not applicable	2.5V or less / 1.5mA or less	Not applicable
Input impedance		Approx. 3K Ω	Not applicable	Approx. 3K Ω	Not applicable
Surge absorber		Not applicable		Not applicable	Zenor diode
External power supply		Not required	24V 200 mA or less	Not required	Not Applicable
Response time	Off → On	2ms or less	10ms or less	2ms or less	1 ms or less
	On → Off	2ms or less	10ms or less	2ms or less	1 ms or less
Common method		8points per common(Both of +and -commons are available.)	8 points per common	8points per common(Both of +and -commons are available.)	16 points per common (-)
External connection method		Terminal block (terminal screw : M3.0)		Two 20-pin connectors	
Recommended cable size		0.5 to 1.25 mm^2		0.2mm^2	

■ Wiring Diagram

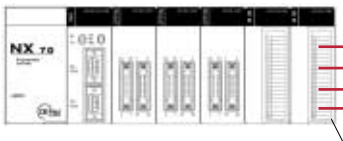
NX70-XY16	NX70-XY32
NX70-XY16  	 

※ We recommend you should purchase separately a connector harness (NX70_CBLDC for dc input, NX_70CBLTR for transistor output) or pin type connector assembly (NX70_PIN20) for external connections. For more information on wiring, refer to NX70 User Manual.

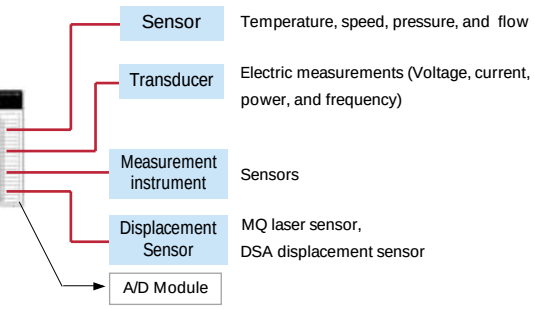
Analog Input Module (A/D Module)



A/D Module (4CH)
(NX70-AI4V,
(NX70-AI4C)



A/D Module (8CH)
(NX70-AI8V,
(NX70-AI8C)



Features

Provides high-speed conversion speed and high-accuracy resolution, which are the deciding factors in the performance of analog module.

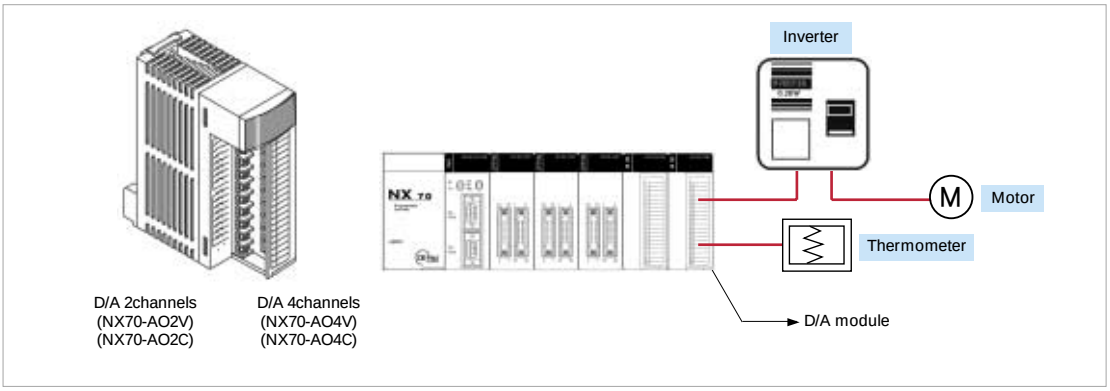
1. Built-in 4 channels in a module
2. High resolution
   Provides max. resolution of 0.153 mV for voltage type, and 0.519 uA for current type. You can select an appropriate resolution using the DIP switch.
3. DC/DC converter and/or photocoupler insolation between the input channels and the internal circuit.
4. Two programming methods
   Provides two programming methods. You can select an appropriate method according to the occupied I/O points:
   1. Using shared memory
   2. Using I/O contacts.
5. Additional functions (e.g. scaling)
   The A/D module is equipped with 16-bit A/D converter, providing high-accuracy conversion and high-speed processing of 1.25 ms per channel.

Specifications

Catalog numer	Votage Input		Current Input	
	NX70-AI4V	NX70-AI8V	NX70-AI4C	NX70-AI8C
Analog input range	Voltage : 0 to 10V, 0 to 5V, ±10V, ±5V,		Current : 0 to 20mA, 4 to 20mA, ±20mA	
Numer of analog input channels	4 channels	8 channels	4 channels	8 channels
Digital conversion	Signed 16-bit interger (2's complement)			
Converter type	16-bit A/D conventer			
I/O characteristics *1	0 to 10V (0 to 32767)		0 to 20mA (0 to 32767)	
	0 to 5V (0 to 32767)		4 to 20mA (0 to 32767)	
	± 10V(-32767 to 32767)		± 20Ma(-32767 to 32767)	
	± 5V(-32767 to 32767)			
Max. resolution *1	0.153mV		0.519uA	
Overall accuracy	± 0.2%/ full scale(25℃)		± 0.3%/full scale(25℃)	
Conversion speed	1.25ms per channel			
External input impedance	500kΩ		249kΩ	
Absolute maximum Input	Voltage : ± 15V, Current : ± 30mA		Voltage : ± 7.5V, Current : ± 30mA	
Isolation method	Between input channel and internal circuits : DC/DC Converter, Photocoupler insulation			
	Between input channels : Non-isolation			
Occupied I/O point	· Shared memory type : 16points			
Other functions	Channel On/Off switching			
Internal current consumption	Internal current (0.29A at 5V or less) (External 24V dc is not required.)			
External connection method	Terminal block(terminal screw : M3.0)			

*1. Both of I/O characteristics and maximum resolution can be set to from high to average by selecting the DIP switch located on the bottom of the product. The conversion speed and stability for converted data depend on resolution.

Analog Output Module (D/A Module)



Features

Provides high-speed conversion speed and high-accuracy resolution, which are the deciding factors in the performance of analog module.

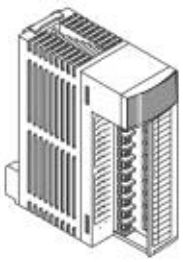
1. Built-in 2 or 4 channels in a module
2. DC/DC converter and/or photocoupler isolation between the input channels and the internal circuit.
3. High resolution
   Resolution is approximately max. 0.6 mV for voltage type and approximately max. 1.2 uA for current type.
4. Two programming methods for analog processing
   Provides two programming methods. You can select an appropriate method according to the occupied I/O points:
   1. Using shared memory
   2. Using I/O contacts.
5. Additional functions (e.g. scaling)
   The D/A module contains a 14-bit D/A converter that processes data at high speed and accuracy.

Specifications

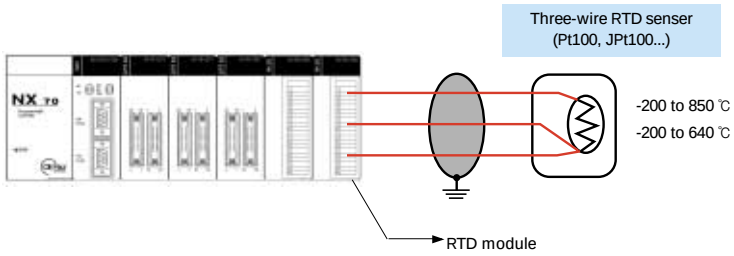
Catalog numer	Voltage output		Current output	
	NX70-A04V	NX70-A02V	NX70-A04C	NX70-A02C
Analog output range	± 10V, 0 to 10V, ± 5V, 0 to 5V		0 to 20mA, 4 to 20mA	
Numer of analog output channels	4channels	2channels	4channels	2channels
Digital conversion	Signed 16-bit integer(inary) (2's complement)			
Converter type	14-bit D/A converter			
I/O characteristics *1	1) ± 10V(-16,383 to 16,383) 2) 0 to 10V (0 to 16,383) 3) ± 5V(-16,383 to 16,383) 4) 0 to 5V (0 to 16,383)		1) 0 to 20mA (0 to 16,383) 2) 4 to 20mA (0 to 16,383)	
Max. resolution *1	0.6mV		1.2 uA	
Overall accuracy	± 0.2%/full scale(25 ℃)		± 0.4%/full scale(25 ℃)	
Conversion speed	2.5 ms per channel			
Output impedance	0.1 Ω or less		10M Ω or more	
Output resistance	5K Ω or more		500 Ω or less	
Isolation method	·Between output channel and internal circuits : DC/DC converter, photocoupler insulation ·Between output channels : Non-insulation			
Occupied I/O points	· Output contact type, 4 channels: 4 words (64 points), 2 channels: 2 words (32 points) ·Shared memory type: 1 word (16 points)			
Occupied I/O points	·Output contact type, 4 channels : 64-point output, 2channels : 32-point output ·Shared memory type : 16 points			
Other functions	Data verification			
Internal current consumption	0.33A or less at 5V	0.23A or less at 5V	0.6A or less at 5V	0.4A or less at 5V
External power supply	Not required			
External connection method	Terminal block(terminal screw : M3.0)			

*1. Both of I/O characteristics and maximum resolution can be set to from high to average by selecting the DIP switch located on the bottom of the product. The conversion speed and stability for converted data depend on resolution.

RTD (Resistance Temperature Detector) Module



RTD module (4channels)
(NX70-RTD4)



Features

Performs high-speed and high-accuracy processing with an embedded 24-bit Σ-Δ A/D converter. It features a variety of I/O ranges, as well as self-calibration.

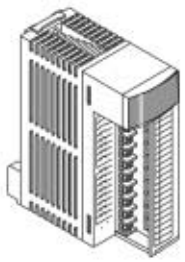
1. Built-in 4 channels in a module
2. Supports various temperature sensor types
   Available temperature sensor types should be of three-wire. Supported sensor types: pt100, pt200, pt500, pt1000, Jpt100, and Jpt200.
3. Both Celsius (℃) and Fahrenheit (°F) data processing
   You can select an option by adjusting the DIP switch on the bottom of the module.
4. Two programming methods for analog processing
   Provides two programming methods. You can select an appropriate method according to the occupied I/O points:
   1. Using shared memory
   2. Using I/O contacts.
5. Designed with high noise immunity
   The analog and digital noise filters are attached on the inside of the module, which allows the module to resist environmental disturbances including noise more effectively.

*Resistance Temperature Detector (RTD)
Based on the principle that resistance varies also as temperature varies. It measures the voltage by flowing out a constant current into variable resistance. V = I*R

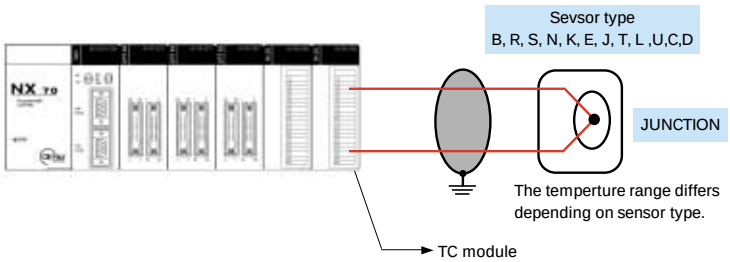
Specifications

RTD sensor	Three-wire type	
Digital conversion	Signed 16-bit integer (2's complement)	
Converter type	24-bit Σ-Δ A/D converter	
I/O characteristics(temperature sensor and digital output)	① Pt100 (α=0.00385, -200 to 850 ℃ => -2,000 to 8,500)	⑤ 300 Ω (10 m Ω per bit)
	② Pt200, Pt500, Pt1000	⑥ 600 Ω (20 m Ω per bit)
	③ JPt100 (α=0.00385, -200 to 640 ℃ => -2,000 to 6,400)	⑦ 2000 Ω (100 m Ω per bit)
	④ JPt200, JPt500, JPt1000	⑧ NI100, NI120, CU1
Max. resolution	0.1 ℃, 0.1 °F, 10 m Ω, 20 m Ω	
Overall accuracy	± 0.1% /full scale (25 ℃)	
Conversion speed	60 ms per channel	
External input impedance	10 M Ω	
Current source	1 mA (excitation current)	
Isolation method	Between input channel and internal circuit: DC/DC converter, photocoupler isolation Between input channels: Non-isolation	
Occupied I/O points	· Input contact type: 4 words (64 points) · Shared memory: 1 word (16 points)	
Internal current consumption	0.3A or less at 5V	
External power supply	Not required	
External connection	Terminal block (terminal screw: M3.0)	

TC (Thermocouple) Module



TC module (4 channels)
(NX70-TC4)



Features

Performs high-speed and high-accuracy processing with an embedded 24-bit Σ-Δ A/D converter. It features a variety of I/O ranges, as well as self-calibration.

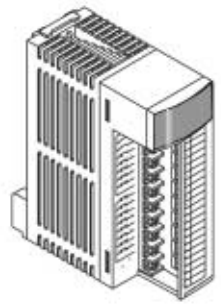
1. Built-in 4 channels in a module
2. Supports various temperature sensor types
   Supported sensor types: B, R, S, N, K, E, J,T,L,U,C,D.
3. Supports both Celicious(℃) and Fahrenheit(°F) data processing.You can select an option by adjusting the DIP switch on the bottom of the module.
4. Two programming methods for analog processing
   Provides two programming methods. You can select an appropriate method according to the occupied I/O points:
   1. Using shared memory
   2. Using I/O contacts.
5. Temperature compensation
   When a thermocouple is connected to the module,it is required to compensate the thermal differences between the actual measurement point and the module.The TC module has a built-in temperature sensor to compensate those thermal differences.

Specifications

Digital conversion	Signed 16-bit integer (2's complement)
Converter type	24-bit Σ-Δ A/D converter
Number of RTD input channels	4 channels
I/O characteristics (Uses temperature sensor and digital output)	Type B/ R/ S/ N/ K/ E/ J/ T/ L/ U/ C/ D (The temperature range differs depending on sensor type)
	± 32.7 mV (1 uV per bit)
	± 65.5 mV (2 uV per bit)
	± 75 mV(10uV per bit)
Max. resolution	0.1 ℃, 0.1 °F, 1 μV , 2 μV , 10 μV
Overall accuracy	± 0.1%/full scale (25 ℃)
Conversion speed	60 ms per channel
External input impedance	10 MΩ
Temperature compensation sensor	0~85 ℃(Cold Junction Compensation)
Isolation method	Between input channel and internal circuit: DC/DC converter, photocoupler isolation Between input channels: Non-isolation
Occupied I/O points	· Input contact type: 4 words (64 points) · Shared memory type: 1 word (16 points)
Internal current consumption	0.3A or less at 5V
External power supply	Not required
External connection	Terminal block (terminal screw M3.0)

HSC (High-Speed Counter) Module (1,2CH)

The high-speed counter has a quick response time of 100 Kcps, which allows for easy data monitoring and setting. The NX70-HSC1 features one high-speed counting channel and one pulse output channel, while the NX70-HSC2 features two high-speed counting channels.



High-speed counter module
NX70-HSC2: 2-channel module
NX70-HSC1: 1-channel module

Features

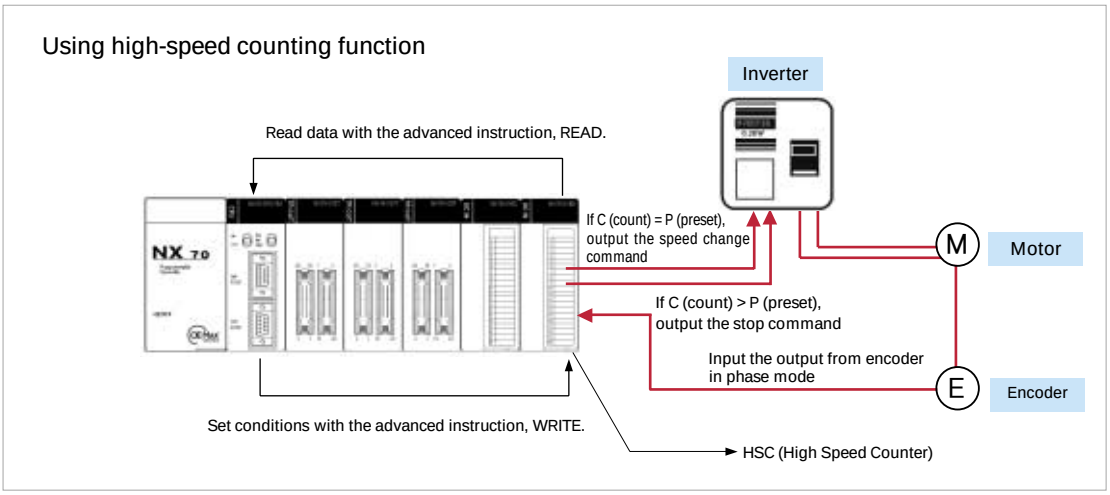
1. Quick pulse signaling at 100 Kcps
   This module features a phase input mode that can count two-phase pulses from a rotary encoder, and high-accuracy and high-speed positioning capability. Counting is performed for both individual input and direction control input by adjusting the DIP switch on the bottom of the module.
2. Wide range of counting value
   The counting value range is from -16,777,216 to 16,777,215, signed 24-bit integer .
3. Easy data monitoring and setting
   Shared memory allows the module to read or write data easily to the PLC.
4. Comparison and coincidence outputs (C=P, C>P)
   These outputs can be used as a signal to reduce the motor speed or to stop the motor.

Specifications

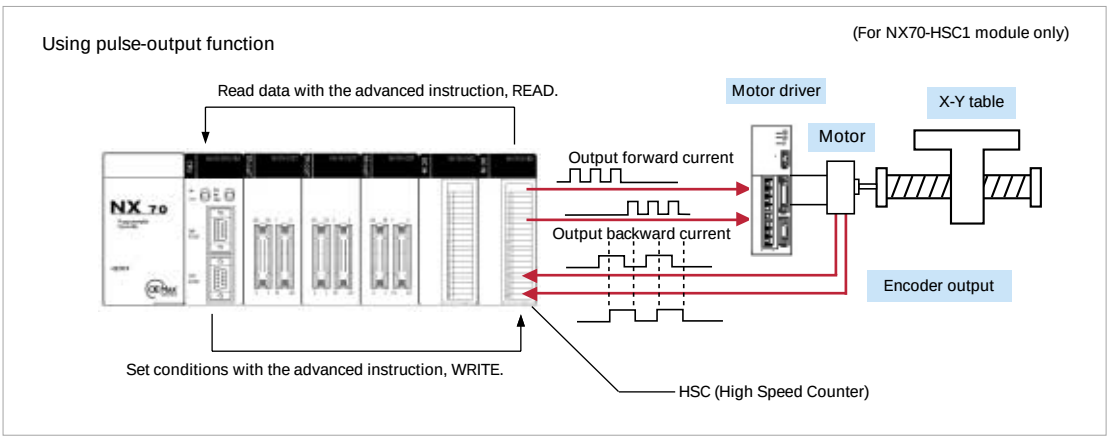
Item1			NX70-HSC2	NX70-HSC1
Input specifications		Number of input points	6 points (INA, INB, PR/INH) x 2	6 points (INA, INB, PR/INH) x 1
		Input voltage	5 to 24V dc	5 to 24V dc
		On voltage/current	4.5V or more / 3 mA or less	4.5V or more / 9.6V or more
		Off voltage/current	1.5V or less / 0.6 mA or more	1.5V or less / 2.5V or less
Counter		Number of counter channel	2 channels (up-down counter)	1 channel (up-down counter)
		Counting range	Signed 24-bit (-16777216 to 16777215)	
		Setting range	24 bits (binary type) (0 to 167772215)	
		Max. counting speed	100 Kcps	
		Min. input pulse width	5 us (individual input)	
Output specifications	Common	Isolation method	Photocoupler	
		Output method	Transistor output (NPN, open collector)	
		Rated load voltage	5 to 24V	
		Max. load current	50 mA	100 mA
		Residual voltage	0.5V or less	
		Leakage current	10 uA or less	
	Pulse output (OUT0, OUT1)	Number of output point	None	2 points (OUT0, OUT1)
		Output frequency		200Hz to 40 kHz: Duty 50% ± 25%, variation ± 5%
		Low frequency		200Hz to 5 kHz
		High frequency		4k to 40 kHz
		Conversion time		100 ms to 500 ms
		Ascending/descending time		2 us or less
	Control output (C=P, C>P)	Number of output points	4 points (C=P, C>P) x 2	2 points (C=P, C>P)
		Common terminal	2 points per common	2 points per common
		Fuse	None	
		Response time	Off → On: 10 us or less, On → Off: 100 us or less	
Others		Internal current consumption	400 mA	350 mA
		I/O points	32 points	
		Status display	LED	
		External connection	20-pin terminal block (terminal screw M3.0)	
Reading and writing high-speed couter data			· NX70-CPU70p1, NX70-CPU70p2: Reads and writes high-speed counter data with the advanced instructions READ and WRITE, respectively.	

■ Examples of HSC (High Speed Counter) Application

■The following diagram shows an application example that counts motor revolutions from the encoder output, compares these revolutions with the preset count, and then commands the inverter to change the motor speed or stop the motor.



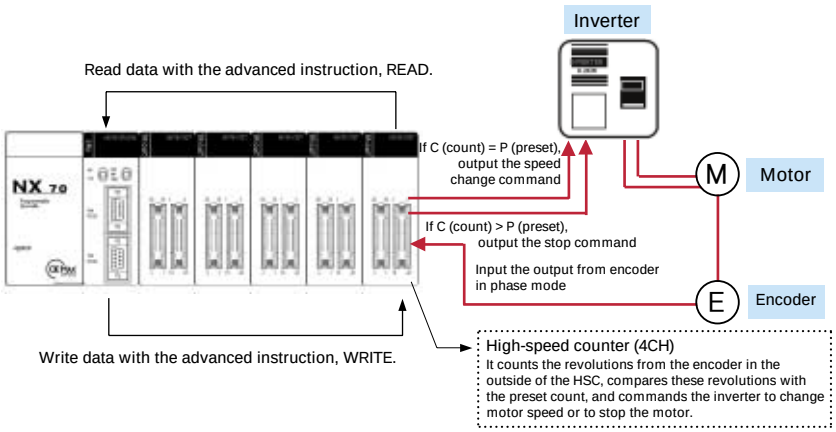
■ The following diagram shows an application example that counts motor revolutions and controls the motor driver with two pulse outputs.



HSC (High-Speed Counter) Module (4CH)

The high-performance high-speed counter (4CH) is equipped with the 4 channels of quick 200 Kcps response time and provides 32-bit counting range. It features 4 high speed counting channels, 8 interrupt inputs and 8 comparison outputs. In addition, up to 32 unused points can be used as regular I/O points.

High-performance high-speed counter (NX70-HSC4)



Features

1. Quick response with high-speed counting of 200K counts per second

   Provides you with refined control with 4 built-in input channels of max. 200 kHz high-speed counting.

2. Wide range of counting value (signed 32-bit integer)

   The counting range is from -2,147,483,648 to +2,147,483,647, signed 32-bit integer .

3. Input Time Constant function that prevents counting errors due to noise

   Allows you to change the counting sensitivity with the Input Time Constant function, which prevents counting errors due to noise. (4, 8, 16, 32 us)

4. Built-in 8 comparison output points

   The high-performance high-speed counter (4CH) includes 8 points that can be allocated randomly, and changes the level of counting speed. This functionality can be used for motor speed change or stop signal when controlling a motor with an inverter.

5. Built-in 8 interrupt input points

   An interrupt program can be invoked when the count reaches the preset, or in accordance with timing from an outside input signal. This functionality allows you to control even a high speed device reliably without delay and disturbance in an emergency.

6. Regular I/O function (mixed 32 I/O points)

   The high-performance high-speed counter works as a regular mixed I/O module of 16 inputs and 16 outputs under the default conditions that the mode setting switch remains unchanged and shared memory is not yet set. If a specific function is assigned to a point, it works as assigned. Otherwise, it works as a regular I/O point.

7. Cost-effective system configuration

   The 4-channel high-performance high-speed counter, NX70-HSC4, provides the features of high-speed counter, interrupt input, comparison output, and regular I/O in a module, allowing you to configure an economical and cost-effective system.

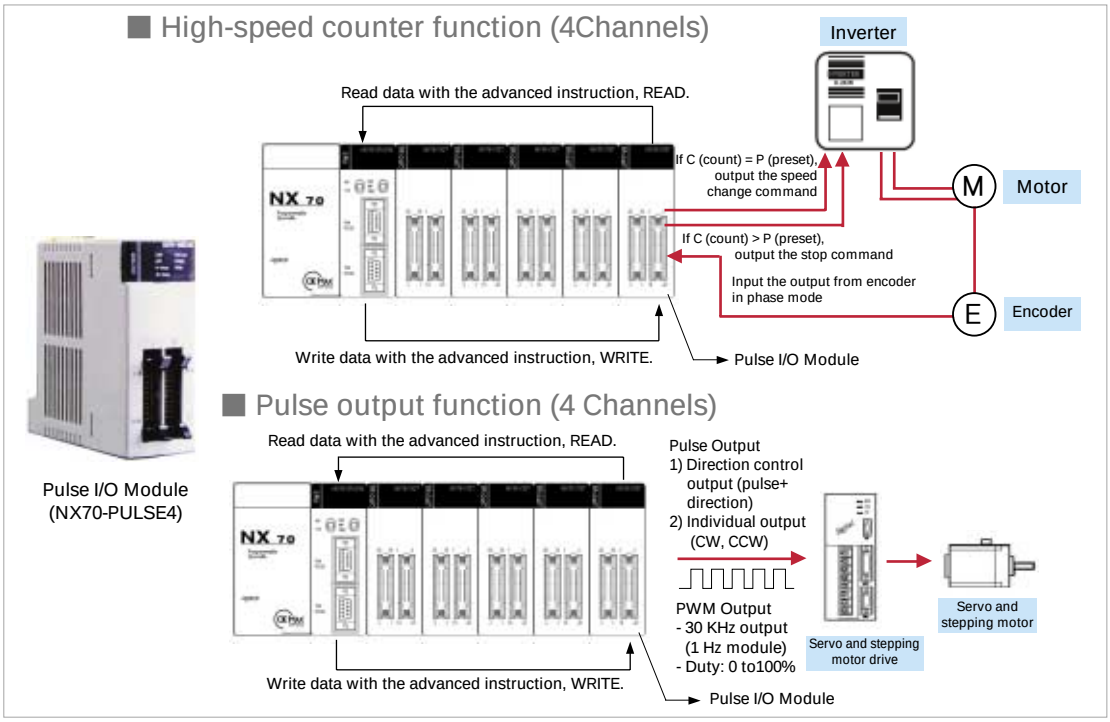
■ Specifications

Item			High-performance high-speed counter (NX70-HSC4)
Input specification	Isolation method		Photocoupler
	Rated input voltage		24V dc
	Rated input current		Approx. 7.5 mA at 24V dc
	Input impedance		Approx. 3.2 kΩ
	Voltage range		20.4V dc to 26.4V dc
	Min. On voltage/current		6 mA at 19.2V
	Max. Off voltage/current		1.5 mA at 5.0V
	Response time	Off → On	1 us or less
		On → Off	2 us or less
	Input time constant setting		None, 4 us, 8 us, 16 us, 32 us (Set in 2-input modules)
	Common method		16 points per common
Counter	Number of counter channels		4 channels
	Counting range		Signed 32-bit integer (-2,147,483,648 to +2,147,483,647)
	Max. counting speed *1		200 kHz
	Input modes		3 modes (Direction control: pulse + direction, Individual input: CW, CCW, phase input)
	Min. input pulse width *1		2.5 us
	Multiplication		x1, x2, x4
	Others		8 comparison outputs
Interrupt	Number of interrupt points *2		None, 1 point per module, Max. 8 points per module
	Interrupt processing delay		160 us or less
Output specification	Isolation method		Photocoupler
	Rated load voltage		5V dc to 24V dc
	Rated load voltage range		4.75V dc to 26.4V dc
	Max. load current		Between [II] A1 to A8 and [II] B1 to B4 terminal for 0.1A, between [II] B5 to B8 terminal for 0.8A
	Max. Off state leak current		1 uA or less
	Max. On state voltage drop		0.5V or less
	Response time	Off → On	1 us or less
		On → Off	1 us or less
	Surge absorber		Zener diode
	Common method		16 points per common
	External power supply	Voltage	20.4V dc to 26.4V dc
		Currentat 24V dc	90 mA or less
Counter	Comparison output		Between [II] A1 to A8 terminal for 8 points
External terminal connection			Two 20-pin connectors (Two 20-pin connector-hoods are included.)

* 1. This value is obtained when there is no I/O time constant (filter) setting.
* 2. When using interrupts with the 1 point per module setting, the interrupt from the external input terminal [I] B1 (X8) or the interrupt program from the comparison (one among INT16 to INT23) is booted.

Pulse I/O Module (4CH)

The pulse I/O module retains all of the features of the high-performance high-speed counter, NX70-HSC4, such as 4 200-Kcps high speed counting channels, 32-bit counting range, 8 interrupt input, 8 comparison outputs, and 32 regular I/O points. In addition, it provides the functionality of 4 channels of 100 kHz pulse output or 40 kHz PWM output.



Features

1. 4 channels of 100 kHz pulse output
   The maximum pulse output of this module is 100 kHz. It has two output modes (Direction control output: pulse + direction, and individual output: CW, CCW). The output frequency can be set by 1 Hz. In addition, you can configure the settings so that inputs can be given to the high-speed counter through internal connection, which facilitates high-speed processing.
2. 4 channels of 30 kHz PWM output
   The maximum PWM output of this module is 30 kHz. Duty range is 0 to 100% and duty can be set by 1%.
3. Quick response with high-speed counter of 200K counts per second
   Provides you with refined control with 4 built-in input channels of max. 200 kHz high-speed counting.
4. Wide range of counting value (signed 32-bit integer)
   The counting range is from -2,147,483,648 to +2,147,483,647, signed 32-bit integer.
5. Input Time Constant function that prevents counting errors due to noise
   Allows you to change the counting sensitivity with the Input Time Constant function, which prevents counting errors due to noise. (4, 8, 16, 32us)
6. Built-in 8 comparison output points
   The pulse I/O module includes 8 points that can be allocated randomly, and changes the level of counting speed. This functionality can be used for motor speed change or stop signal when controlling a motor with an inverter.
7. Built-in 8 interrupt input points
   An interrupt program can be invoked when the count reaches the preset, or in accordance with timing from an outside input signal. This functionality allows you to control even a high speed device reliably without delay and disturbance in an emergency.
8. Regular I/O function (mixed 32 I/O points)
   The pulse I/O module works as a regular mixed I/O module of 16 inputs and 16 outputs under the default conditions that the mode setting switch remains unchanged and shared memory is not yet set. If a specific function is assigned to a point, it works as assigned. Otherwise, it works as a regular I/O point.
9. Cost-effective system configuration
   The pulse I/O module provides the features of high-speed counter, interrupt input, comparison output, and regular I/O in a module, allowing you to configure an economical and cost-effective system.

Pulse I/O Module (4CH) *continued*

■ Specifications

Item			Pulse I/O Module (NX70-PULSE4)
Input specification	Isolation method		Photocoupler
	Rated input voltage		24V dc
	Rated input current		Approx. 7.5 mA at 24V dc
	Input impedance		Approx. 3.2 kΩ
	Voltage range		20.4V to 26.4V dc
	Min. On voltage/current		6 mA at 19.2V
	Max. Off voltage/current		1.5 mA at 5.0V
	Response time *1	Off → On	1 us or less
		On → Off	2 us or less
	Input time constant setting		None, 4 us, 8 us, 16 us, 32 us
	Common method		16 points per COM
Counter	Number of counter channel		4 channels
	Counting range		Signed 32-bit integer (-2,147,483,648 to +2,147,483,647)
	Max. counting speed *1		200 kHz
	Input modes		3 modes (Direction control: pulse + direction, Individual input: CW, CCW, phase input)
	Min. input pulse width *1		2.5 us
	Multiplication		x1, x2, x4
	Others		8 comparison outputs
Interrupt	Number of interrupt points *2		None, 1 point per module, 8 points per module (with the mode setting switch)
	Interrupt processing delay		160 us or less
Output specification	Isolation method		Photocoupler
	Rated load voltage		5V to 24V dc
	Rated load voltage range		4.75V to 26.4V dc
	Max. load current		Between (II) A1 to A8 and (II) B1 to B4 terminal for 0.1A, between (II) B5 to B8 terminal for 0.8A
	Max. Off state leak current		1 uA or less
	Max. On state voltage drop		0.5V or less
	Response time	Off → On	1 us or less
		On → Off	1 us or less
	Surge absorber		Zener Diode
	Common method		16 points per common
	External power supply	Voltage	20.4V to 26.4V dc
		Current(when using 24V DC)	90 mA or less
Counter	Comparison output		Between A11 to A18 terminal for 8 points
External terminal connection			One 40-pin connector (One 40-pin connector-hood is include)
Pulse output	Number of channels		4 channels ((II) B1 to B8 terminals)
	Max. output frequency *3		100 kHz
	Output modes		2 modes (direction control output: Pulse + direction, individual output: CW, CCW)
PWM output	Number of channels		4 channels (B15 to B18 terminals)
	Max. load current		0.8A
	Cycle *3		1 Hz to 30 kHz (unit: 1 Hz)
	Duty *3		0 to 100% (unit: 1%)

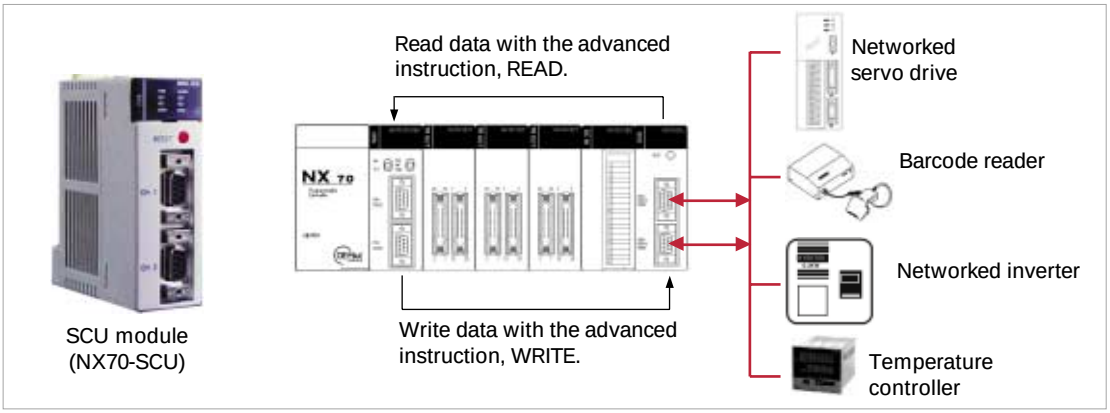
*1. This value is obtained when there is no I/O time constant (filter) setting.

*2. When using interrupts with the 1 point per module setting, the interrupt from the external input terminal B1 (X8) or the interrupt program from the comparison (one among INT16 to INT23) is booted.

*3. Output waves at maximum load current or load resistance may be distorted, depending on the amount of load current and the load type.

SCU (Serial Communication Unit) Module

The SCU module provides the capability of data input/output with a RS232C or RS485 communication enabled device such as barcode reader (RS232C) and networked inverter (RS485). It allows you to perform ASCII or HEX (binary) communication via ladder program.



Features

1. Equipped with two serial communication channels.
   (RS232C and RS485, selectable)
2. Data input/output can be processed with simple sequence commands.
3. The advanced instruction READ reads data from the SCU module, and the advanced instruction WRITE writes data to the SCU module.
   You do not need to create a complicated program because the SCU module performs all the subsequent processes through the shared memory between the processor module and the SCU module.
4. Networking using RS232C and RS485 communication
   - Data input/output with RS232 devices:
     The SCU module allows your PLC system to connect to and input/output data to/from IDX display, measurement instruments, barcode reader and/or printer, etc.
   - Data input/output with RS485 devices:
     The SCU module allows your PLC system to connect to and input/output data to/from temperature controller, networked inverter and/or networked servo motor.
5. No limitation on the number of mountable modules.
   Able to transmit 500 bytes at a time
6. Supports both of ASCII and HEX (binary) transmission code formats

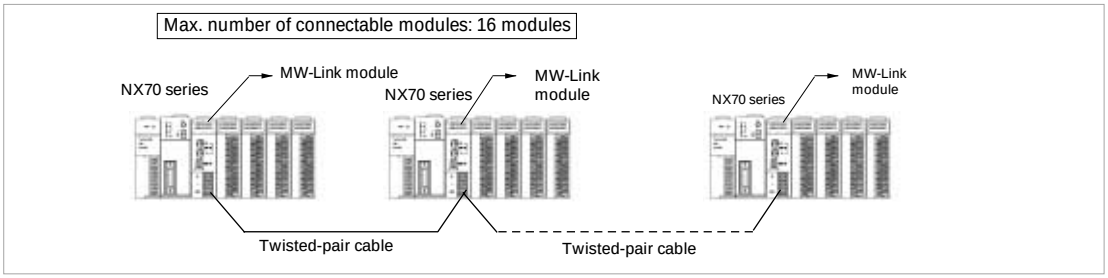
Specifications

Interface	RS232C / RS485 2 ports
Transmission speed	Selectable by using DSW1 and DSW2 (DIP switches)
	1) For RS232C: 300/ 600/ 1200/ 4800/ 9600/ 19200/ 38400 bps
	2) For RS485: 4800/ 9600/ 19200/ 38400 bps
Communication method	Half duplex
Synchronization method	Start-stop synchronization
Transmission distance	15 m for RS232C, 1.2 Km for RS485
Transmission code format	ASCII or HEX (Binary)
Transmission data format	Stop bit: 1-bit/2-bit (Selectable)
	Parity: Yes/No (Even/Odd, Selectable)
	Data length: 7-bit/8-bit (Selectable)
Data transmission order	Transmits from bit 0 by character
Transmission module	Message to the end terminal code (Length is variable.)
Maximum message length	Max. 500 byte/frame including the end and start terminal codes
Interface with CPU	Shared memory type • For NX70-CPU70p1 (or CPU70p2): read/write with the advanced READ/WRITE instruction
I/O allocation	Allocation of 16 points for input and output, respectively
End terminal code setting	Select one among ① cr ② cr+LF and ③ ETX, or set code using the shared memory.
Start terminal code	Start terminal code Yes/ No
Other special control	End terminal code in the Cut Send/Receive mode (control by sequence commands). Convenient to print out
	Soft reset (control by sequence commands)

MW-Link (Multi_Wire-Link) Module

The Multi-Wire-Link module allows you to configure a cost-effective PLC network by connecting up to 16 NX70 series PLC systems using twisted-pair cables. It enables 2-layer network configuration, and provides the functionalities of PLC link, computer link, data transmission and remote programming.

■ Configuration



NX70 PLC
MW-LINK module
(NX70-MWLINK)

■ Specifications

Item	Specifications
Communication method	Token bus
Transmission method	Baseband
Number of connection stations	Total 2 layers with 16 stations per layer.
Transmission cable	Twisted-pair (two-wire type)
Transmission distance	800 m (total length)
Transmission speed	0.5 Mbps
Function / Max. number of stations	① PLC link, Max. 16 stations ② Data transmission, Max. 16 stations ③ Remote programming, Max. 16 stations (Layer 1 only)
PLC link capacity per module	Link relay (L): 1,024 points per layer. *1Link register (Ld): 128 words
Interface	RS-485 multi-drop
RAS function	Hardware self-diagnostics

*1. L denotes Link Relay and W, Link Register for NX-CPU70p2 module

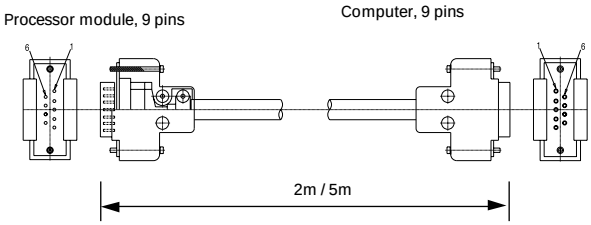
■ Features

1. You can configure a PLC network by connecting up to 16 NX70 series PLC systems viaMW-link module. (W-mode only)
2. East network configuration using twisted-pair cables
   By using economical twisted-pair cables, you can configure a cost-effective PLC network easily.
4. Concentrated management with 2-layer wire-link
   Up to 2 networking modules, including wire-link module, can be mounted with 1 processor module. Configuring a 2-layer network by mounting 2 wire-link modules allows you to manage the PLC contact points, data and information in focus. (NOTE: Data transmission is possible on the same layer only.)
5. Token bus type (Total length: 800m)
   With MW-link module, your PLC network configuration will be of bus type and cabling can run up to 800 m without loop wiring.

Cables for Processor Module (NX70-CPU70p1, NX70-CPU70p2)

Catalog number	Cable length	Applicable models	Remarks
NX_CBLCPU2	2 m	. NX7 PLC (NX7-28ADR, NX7-48ADR...) . NX70 (NX70-CPU70p1, NX70-CPU70p2)	
NX_CBLCPU5	5 m		

Cable wiring and configuration (NX_CBLCPU2, NX_CBLCPU5)



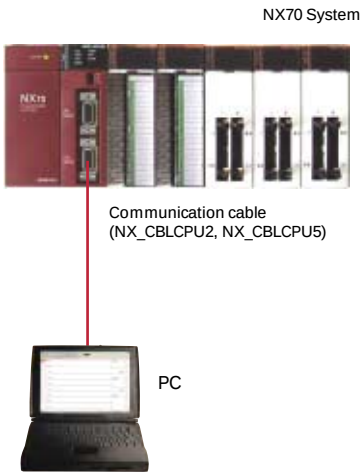
Processor module, 9 pins

Signal	Pin No.
TXD	2
RXD	3
-	4
S.G	5
485(-)	6
485(+)	7
-	8
VCC	9

Computer, 9 pins

Pin No.	Signal
2	RXD
3	TXD
4	DTR
5	GND
6	DSR
7	RTS
8	CTS
9	

(Female)

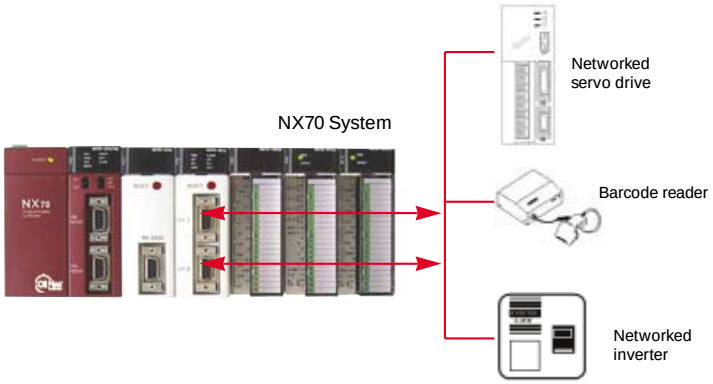


Cables for NX70 SCU Module

■ Cable Wiring for SCU Module (NX70-SCU)

SCU module COM port, 9 pins

Pin No.	Signal	Mnemonic
1	Frame ground	FG
2	Transmit data	TxD
3	Receive data	RxD
4	-	-
5	Signal ground	S.G
6	485 transceiver -	485-
7	485 transceiver +	485+
8	-	-
9	Vcc	+5V



■ RS232C wiring (3-wired type without flow control)

SCU module, 9 pins

Signal	Pin No.
F.G	1
TXD	2
RXD	3
S.G	5

17JE - 23090 - 02 (D1), DDK (Male)

RS232 device, 9 pins

Pin No.	Signal
1	-
2	RXD
3	TXD
5	S.G

17JE -13090-02 (D1), DDK (Female)

■ RS485 wiring

SCU module, 9 pins

Signal	Pin No.
F.G	1
485-	6
485+	7

RS485 device

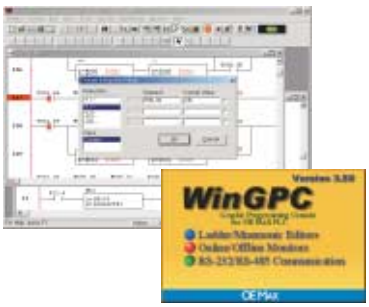
Signal
-
485-
485+

Shielded Twist Pair

WinGPC – Programming Software

WinGPC, our PLC programming software that supports Microsoft Windows, provides an integrated computer-programming environment. It is flexible, scalable, and is complete with a variety of functions such as ladder editing, monitoring, debugging, file management, and time-chart monitoring.

Configuration



WinGPC for Windows

NX70-CPU70p2 PLC system

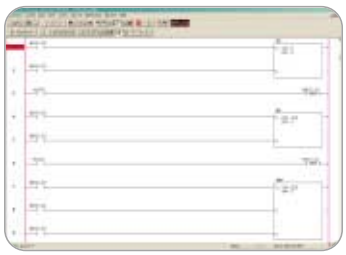
Cable:NX_CBLCPU2
NX_CBLCPU5

WinGPC

Features

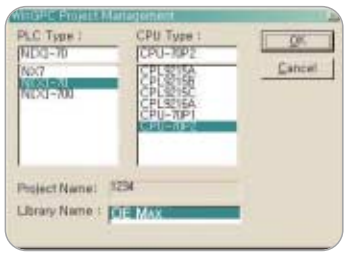
1. Optimized for Microsoft Windows operating system, WinGPC allows you to enjoy the convenience and functionality of a Windows-based application.
2. Capable of editing multiple programs concurrently, it allows for comparing and copying programs during programming process.
3. Provides a variety of tools that make your programming easier.
4. Features a variety of monitoring functions, including ladder, mnemonic, time chart, and register monitoring.
5. Allows for automatic conversion of ladder and mnemonic programs.
6. Detects automatically all PLCs connected online.
7. Provides easy online program editing.

Ladder editing



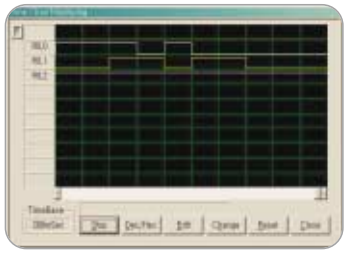
Mnemonic editing

Project management

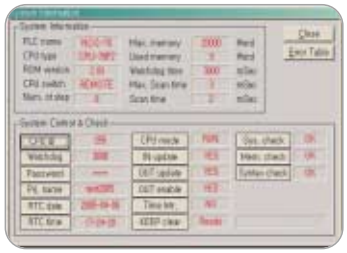


Register monitoring

Time-chart monitoring

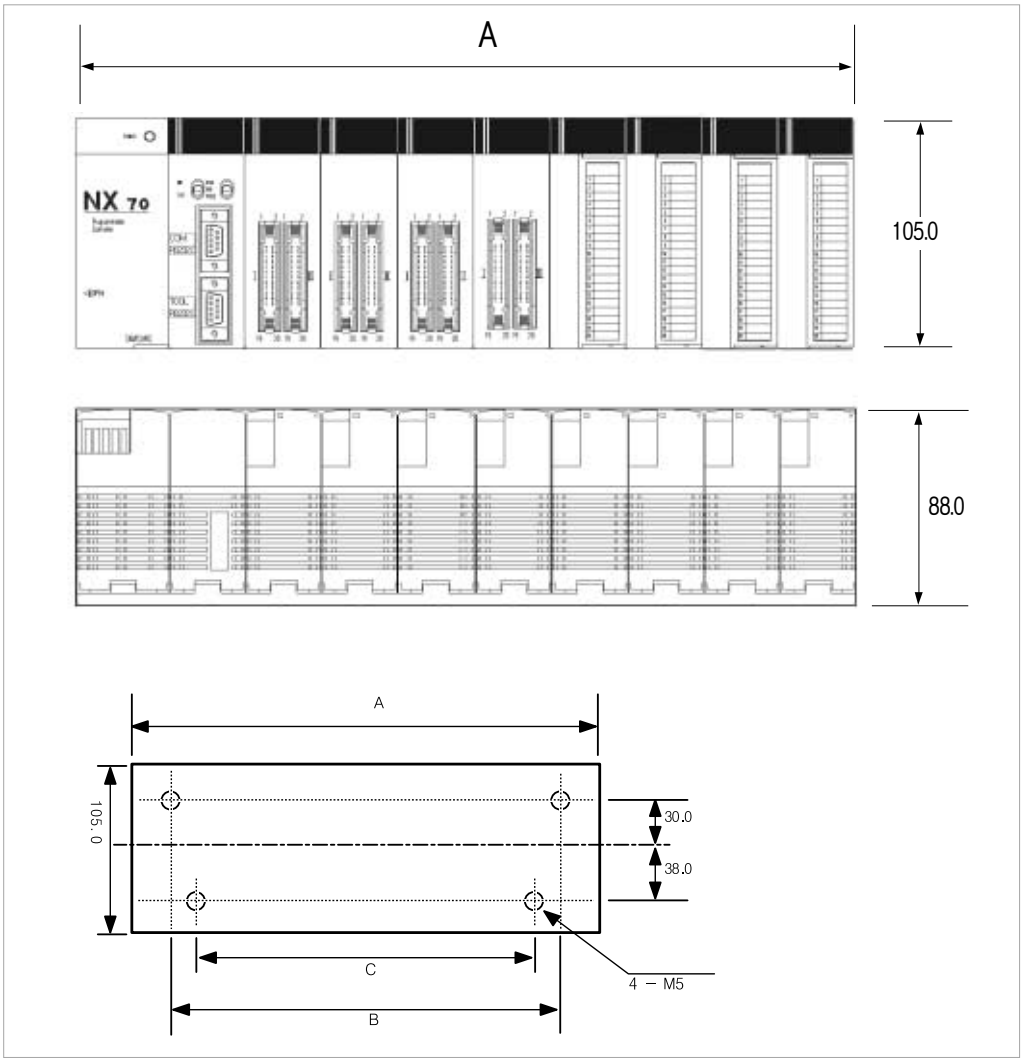


Status monitoring



Product Dimensions

■ System dimensions (unit: mm)

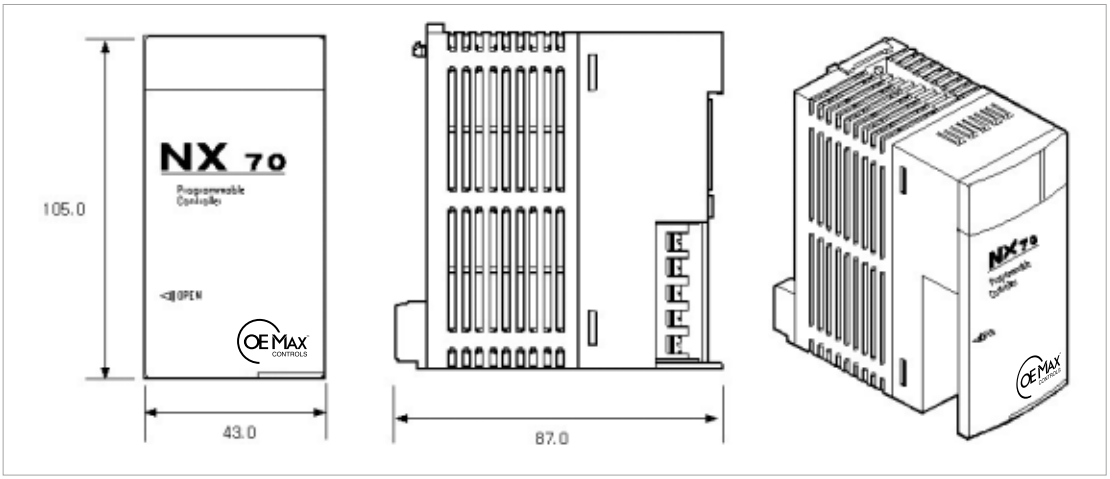


Unit (mm)

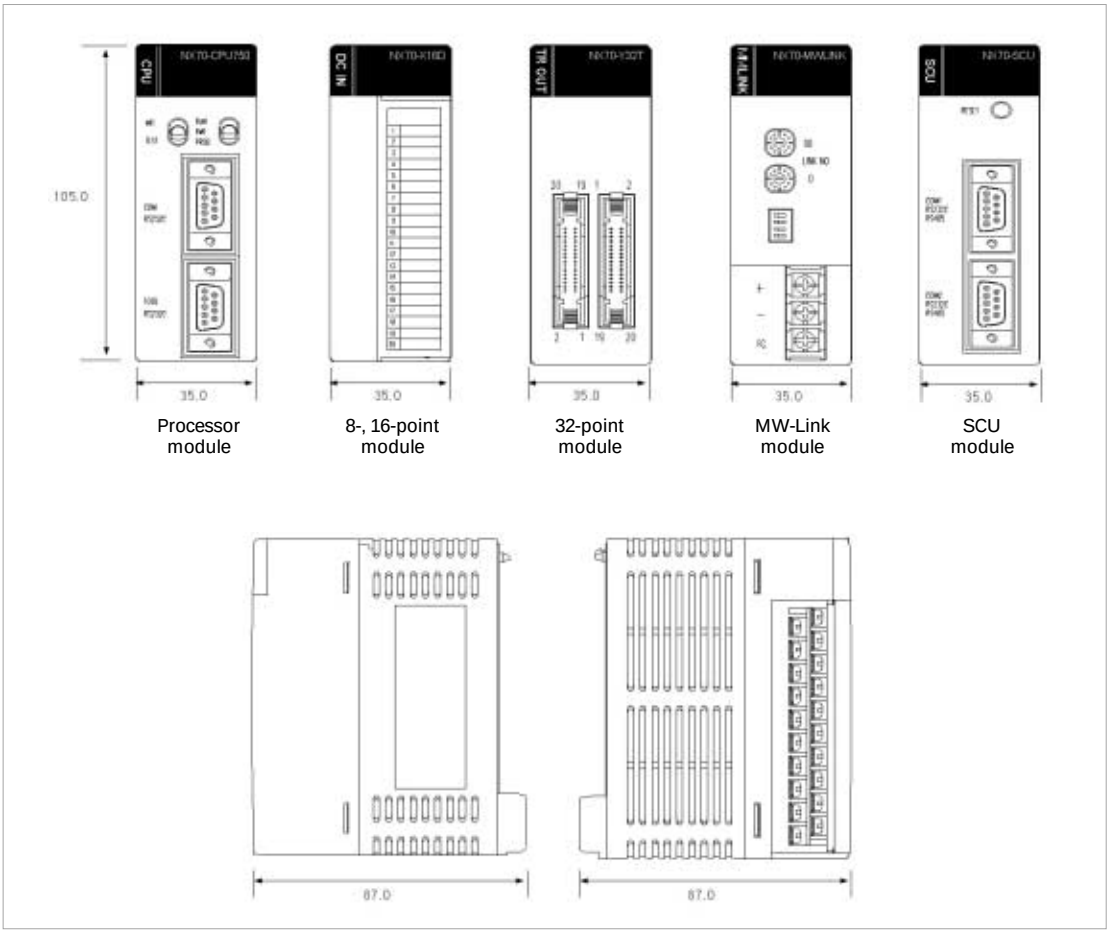
2 Slot	NX70-BASE02	149.5	129.5	115.5
3 Slot	NX70-BASE03	185.0	165.0	151.0
5 Slot	NX70-BASE05	256.0	236.0	222.0
6 Slot	NX70-BASE06	291.5	271.5	257.5
8 Slot	NX70-BASE08	362.5	342.5	328.5
10 Slot	NX70-BASE10	398.0	378.0	364.0
12 Slot	NX70-BASE12	433.5	413.5	399.5

Product Dimensions *continued*

■ Power Supply Module Dimensions (unit: mm)



■ Processor, I/O, Special Module Dimensions (unit: mm)



Processor module | 8-, 16-point module | 32-point module | MW-Link module | SCU module

Summary of Product Specifications

Processor Module

Module type	Catalog number	Specifications	Remarks
Processor	NX70-CPU70p1	- 9.6k step (built-in), 0.2 μs per step, built-in flash ROM - Standard processor module	
	NX70-CPU70p2	- 20k step (built-in), 0.2 μs per step, 2 ports, real time clock (RTC) function, built-in flash ROM,PID function - Ehancend processor module	

Communication Cable

Module type	Catalog number		Specifications	Remarks
Communicati on cable	NX_CBLCPU2	3 m	Communication cable between processor and personal computer	
	NX_CBLCPU5	5 m		

Backplane

Module type	Catalog number	Specifications	Remarks
Backplane	NX70-BASE02	2-slot type	The last 2 digits of the catalog number of a backplane (for example, 12 in NX70-BASE12) indicate the total number of I/O and specialty modules that can be mounted.
	NX70-BASE03	3-slot type	
	NX70-BASE05	5-slot type	
	NX70-BASE06	6-slot type	
	NX70-BASE08	8-slot type	
	NX70-BASE10	10-slot type	
	NX70-BASE12	12-slot type	

Power Supply Module

Power supply module	NX70-POWER1	110 to 220V ac free voltage, 3.5A at 5V, 0.3A at 24V	AC input type
	NX70-POWER2	110 to 220V ac free voltage, 4.5A at 5V	
	NX70-PWRDC	24V dc input, 4.5A at 5V	DC input type

Summary of Product Specifications *continued*

■ I/O Module

Module		Catalog number	Specifications	Remarks
Input module	16 points	NX70-X16D	12 to 24V dc, 20-pin terminal board, 8 points per common (both + and - polarities are available.)	Terminal block type
		NX70-X16D1	24V dc, 20-pin terminal board, 8 points per common (both + and - polarities are available.)	
		NX70-X16A110	100 to 120V ac, 20-pin terminal board, 8 points per common	
		NX70-X16A220	200 to 240V ac, 20-pin terminal board, 8 points per common	
	32 points	NX70-X32D	12 to 24V dc, two 20-pin connectors, 8 points per common (both + and - polarities are available.)	Connector type (Option: NX70_CBLDC)
		NX70-X32D1	24V dc, two 20-pin connectors, 8 points per common (both + and - polarities are available.	
Output module	8 points	NX70-Y8R	Relay output, 20-pin terminal board, 3A at 250V (one 4 points per common, four 1 point per common)	Terminal block type
	16 points	NX70-Y16R	Relay output, 20-pin terminal board, 1A at 250V, 8 points per common	
		NX70-Y16RV	Relay output, 20-pin terminal board, 1A at 250V, 8 points per common, Varistor	
		NX70-Y16T	Transistor output (NPN), 20-pin terminal board, 0.6A at 12 to 24V, 8 points per common	
		NX70-Y16SSR	SSR output, 20-pin terminal board, 0.5A at 100 to 220V, 8 points per common	
	32 points	NX70-Y32T	Transistor output (NPN), two 20-pin connectors, 0.4A at 12 to 24V, 16 points per common (-)	Connector type (Option: NX_CBLTR)
		NX70-Y32P	Transistor output (PNP), two 20-pin connectors, 0.4A at 12 to 24V, 16 points per common (+)	
Combo module	16 points	NX70-XY16	12 to 24V dc, 8 points, 8 points per common (both + and - polarities are available.)Relay output, 8 points, 1A at 250V, 8 points per common, 20-pin terminal board	Terminal block type
	32 points	NX70-XY32	12 to 24V dc, 16 points, 16 points per common (both + and - polarities are available.), two 20-pin connectorsTR output (NPN) 16 points, 0.4A at 12 to 24V, 16 points per common	Connector type (Option:NX70_CBLDC, NX70_CBLTR)
Dummy module		NX70-DUMMY	Dummy module	

■ Analog Module

Analog input (A/D) (For both voltage and current)	NX70-AI8V	8 channels, voltage input, 16-bit A/D Converter, ± 5V, ± 10V, 0 to 5V, 0 to 10V resolution (0.153 mV to 1.0 mV), conversion speed 1.25 ms/CH	Terminal block type
	NX70-AI8C	8 channels, current input, 16-bit A/D Converter, ± 20 mA, 0 to 20 mA, 4 to 20 mA resolution (0.519 uA to 2.0 uA), conversion speed 1.25 ms/CH	
	NX70-AI4V	4 channels, voltage input, 16-bit A/D Converter, ± 5V, ± 10V, 0 to 5V, 0 to 10V resolution (0.153 mV to 1.0 mV), conversion speed 1.25 ms/CH	
	NX70-AI4C	4 channels, Current Input, 16-bit A/D Converter, ± 20 mA, 0 to 20 mA, 4 to 20 mA resolution (0.519 uA to 2.0 uA), conversion speed 1.25 ms/CH	
Analog output (D/A)	NX70-AO4V	4 channels, voltage output, 14-bit D/A Converter, ± 10V, ± 5V, 0 to 10V, 0 to 5V resolution (0.305 mV to 1.0 mV), conversion speed 2.5 ms/CH	
	NX70-AO4C	4 channels, current output, 14-bit D/A Converter, 0 to 20 mA, 4 to 20 mA resolution (0.037 uA to 2.0 uA) 4 uA, conversion speed 2.5 ms/CH	
	NX70-AO2V	2 channels, voltage output, 14-bit D/A Converter, ± 10V, ± 5V, 0 to 10V, 0 to 5V resolution (0.305 mV to 1.0 mV), conversion speed 2.5 ms/CH	
	NX70-AO2C	2 channels, current output, 14-bit D/A Converter, 0 to 20 mA, 4 to 20 mA resolution (0.037 uA to 2.0 uA) 4 uA, conversion speed 2.5 ms/CH	
Resistance temperature detector (RTD)	NX70-RTD4	4 channels, 3-Wire type, Pt100, Pt200, Pt500, Pt1000, JPt100, JPt200, JPt500, JPt1000, NI100, NI120, CU50, 300 Ω, 600 Ω, 2000 Ω resolution 0.1 ℃, 0.1 ˚F, 10 m Ω, 20 m Ω, conversion speed 60 ms/CH	
Thermocouple(TC)	NX70-TC4	4 channels, Type: B/ R/ S/ N/ K/ E/ J/ T (Temperature range differs depending on sensor type.) ± 30 mV (1 uV/bit), ± 60 mV (2 uV/bit) resolution 0.1 ℃/0.1 ˚F/1 uV/2 uV, conversion speed 60 ms/CH	

Summary of Product Specifications *continued*

■ Communication Module

Module	Catalog number	Specifications	Remarks
Serial communica-tion unit (SCU)	NX70-SCU	RS232C/RS485, 2 ports (Data processing with ladder program) - sends and receives data through RS232C/RS485 communication devices (Binary/ASCII code) - connects to a networked inverter, a networked server, and a networked temperature controller	

■ High Speed Counter and Pulse Output Module

Module	Catalog number	Specifications	Remarks
High-speed counter	NX70-HSC1	1 channel of high-speed counter input and a simple pulse output (200 Hz to 40 kHz) 24-bit binary up/down counter (-16,777,216 to 16,777,215)	Includes simple pulse output function
	NX70-HSC2	2 channels of high-speed counter input 24-bit binary up/down counter (-16,777,216 to 16,777,215)	
	NX70-HSC4	4 channels of high-speed counter input, 8 points of a interrupt input, and 8 points of a comparison output -200 kcps, 32-bit binary up/down counter (-2,147,483,648 to 2,147,483,647) - Multiplication (x1, x2, x4), Input time constant setting (4,8,16,32W/us), pulse width: 2.5 us	
Pulse I/O module	NX70-PULSE4	Multi-function module: 4 channels of pulse output, 4 channels of PWM output, 4 channels of high-speed counter input, 8 points of interrupt input, and 8 points of comparison output -High-speed counter input: 200 kcps, 32-bit binary up/down counter, etc. -Pulse output: 100 KHz output at 1 Hz module, direction control, and individual input (CW, CCW) -PWM output: 30 KHz output at 1 Hz module, Duty: 0 to 100% at 1% module *Function: NX70-HSC4 + pulse output (4 channels) + PWM output (4 channels)	

■ Networking Module

Multi Wire-Link module	NX70-MWLINK	Link function (W-mode) • Functions: -PLC link :16 stations -Computer link -Data transmission -Remote programming • Total of 2 layers with 16 stations per layer. Transmission speed: 0.5 Mbps • Transmission distance: total 800m, Interface: RS-485 multi-drop	Using twisted-pair cables

Summary of Product Specifications *continued*

Programming Device

Module	Catalog number	Specifications	Applicable model	Remarks
Programming software	WinGPC (for Windows)	• Writing PLC programs and checking PLC status on a computer: -Network check-up -I/O mapping and monitoring -File management and saving -Online editing -Error searching -Time chart monitoring	• NX7 • NX70 (NX70-CPU70p1) (NX70-CPU70p2)	For Windows95 or higher

Communication cable

Module	Catalog number	Specifications	Remarks
Processor to PC communication cable	NX-CBLCPU2	2 m	
	NX-CBLCPU5	5 m	

Input/Output Harness

Module		Catalog number	Applicable model	Remarks
I/O cable assembly	NX70 I/O (connector type)	NX70_CBLDC	32-point dc input connector harness	Cable length: 1.5 m Number of pins: 20 pins
		NX70_CBLTR	32-point transistor output connector harness	
I/O connector assembly	NX70 I/O (connector type)	NX70_PIN20	20 pins (connector hood)	

NX7, NX70 Series Controllers
Selection Guide

OE MAX CONTROLS

OE MAX Controls
www.oemax.com