

Network Instrumentation Module Controller Module | NX-D15/25/35



Network Instrumentation Modules make optimal distributed configuration a reality.

The Controller Module is capable of controlling 2 channels or 4 channels with full multi-inputs. Control actions include continuous proportional PID, time proportional PID, and position proportional PID (D35 2 channel model only). Control outputs include transistor, current, voltage, and motor outputs.

Specifications

PV input	Number of inputs	4*1 *2
	Indication accuracy*1 (under standard conditions)	D35: $\pm 0.1\%$ FS ± 1 digit D25: $\pm 0.3\%$ FS ± 1 digit D15: $\pm 0.3\%$ FS ± 1 digit
	Sampling cycle	D35: 100 ms D25: 200 ms D15: 500 ms
Motor feedback input (D35) (output type M)	Allowable resistance range	100 to 2,500 Ω , 2.5 to 5 k Ω
Control output (depending on model No.)	Transistor output/motor output	
	Number of outputs	4
	Output type	Transistor output (sink type)
	External power rated voltage	5 to 24 Vdc
	Allowable output current	100 mAdc or less
	Analog current output	
	Number of outputs	4 (2 for output type S)
	Output current	4 to 20 mAdc, 0 to 20mAdc
	Allowable load resistance	300 Ω or less (6.6 V max.) Note that it is 600 Ω or less (13.2 V max.) for output type S.
	Output resolution	1/10,000 (4 to 20 mA range) 1/12,500 (0 to 20 mA range)
	Analog voltage output	
	Number of outputs	4 (2 for output type G)
	Output voltage	0 to 5 Vdc 1 to 5 Vdc 0 to 10 Vdc 2 to 10 Vdc
	Allowable load resistance	4 k Ω or more
	Output resolution	1/10,000 (0 to 5 V range) 1/8,000 (1 to 5 V range) 1/20,000 (0 to 10 V range) 1/16,000 (2 to 10 V range)
Optional functions (depending on model No.)	Digital output	
	Number of outputs	4
	Output type	Transistor output (sink type)
	External power rated voltage	5 to 24 Vdc
	Allowable output current	100 mAdc or less
	Digital input	
	Number of inputs	4
	Compatible output type	Non-voltage contacts or transistor (sink type)
	Open terminal voltage	5 Vdc $\pm 10\%$
	Current transformer input	
	Number of inputs	4
	Compatible current transformers	Sold separately QN206A and QN212A
Current measurement range	0.4 to 50.0 AAC (rms)	
Indication accuracy	$\pm 5\%$ FS ± 1 digit	
Indication resolution	0.1 A	
Communication specifications (Ethernet)	Protocol	MODBUS/TCP, CPL/TCP
	Protocol	MODBUS (RTU/ASCII), CPL
Communication specifications (RS-485)	Signal level	RS-485 compliant
	Communication/synchronization type	Half-duplex, start/stop synchronization
	Maximum cable length	500 m
	Terminal resistor	External (150 Ω 0.5 W min.)
	Transmission speed	115,200 bps max.
	Rated supply voltage	24 Vdc
	Power consumption	4 W max. (under operating conditions)
General specifications	Weight	200 g max.
	Mounting method	DIN rail

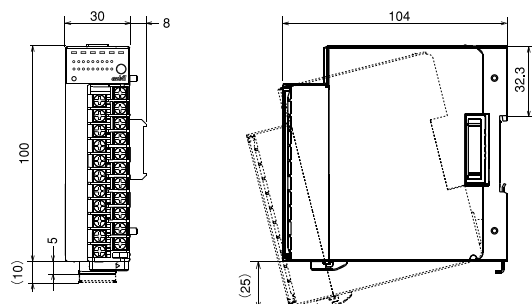
*1. Accuracy may vary depending on the sensor type and range.
*2. The 4ch model has 4 full multi inputs.
The 2ch model has 2 full multi inputs and 2 linear inputs.

Input list

Input type	No.	Type	Range	Resolution
Thermocouple	1	K	-200~+1,200°C	1
	2	K	0~1,200°C	1
	3	K	0.0~800.0°C	1, 0.1
	4	K	0.0~600.0°C	1, 0.1
	5	K	0.0~400.0°C	1, 0.1
	6	K	-200.0~+400.0°C	1, 0.1
	7	K	-200.0~+200.0°C	1, 0.1
	8	J	0~1,200°C	1
	9	J	0.0~800.0°C	1, 0.1
	10	J	0.0~600.0°C	1, 0.1
	11	J	-200.0~+400.0°C	1, 0.1
	12	E	0.0~800.0°C	1, 0.1
	13	E	0.0~600.0°C	1, 0.1
	14	T	-200.0~+400.0°C	1, 0.1
	15	R	0~1,600°C	1
	16	S	0~1,600°C	1
	17	B	0~1,800°C	1
	18	N	0~1,300°C	1
	19	PL II	0~1,300°C	1
	20	WRe5-26	0~1,400°C	1
	21	WRe5-26	0~2,300°C	1
	22	Ni-Mo-Ni	0~1,300°C	1
	23	PR40-20	0~1,900°C	1
	24	DIN U	-200.0~+400.0°C	1, 0.1
	25	DIN L	-100.0~+800.0°C	1, 0.1
	26	Chromel/Gold-iron	0.1~360.1K	1, 0.1
Resistance thermometer detector	41	Pt100	-200.0~+500.0°C	1, 0.1
	42	JPt100	-200.0~+500.0°C	1, 0.1
	43	Pt100	-200.0~+850.0°C	1, 0.1
	44	JPt100	-200.0~+640.0°C	1, 0.1
	45	Pt100	-100.0~+300.0°C	1, 0.1
	46	JPt100	-100.0~+300.0°C	1, 0.1
	47	Pt100	-100.0~+200.0°C	1, 0.1
	48	JPt100	-100.0~+200.0°C	1, 0.1
	49	Pt100	-50.0~+100.0°C	1, 0.1
	50	JPt100	-50.0~+100.0°C	1, 0.1
	51	Pt100	-20.00~+60.00°C	1, 0.1, 0.01
52	JPt100	-20.00~+60.00°C	1, 0.1, 0.01	
Linear	81	DC voltage	0~10 mV	
	82		-10~+10 mV	
	83		0~100 mV	
	84		0~1 V	
	85		-1~+1 V	
	86		1~5 V	
	87		0~5 V	
	88		0~10 V	
	89		2~10 V	
	90		DC current	0~20 mA
91	4~20 mA			

External dimensions

(Unit: mm)



Network Instrumentation Module Controller Module NX-D15/25/35



Model No. configuration

Ex.: NX-D15NT4T00

NX-D15/25/35 (Model 4-channel)

Basic model No.	Type	Ring connection	Wiring method	Control loops	Output type	Option	Additional	Description	
NX-	D15 D25 D35							Network Instrumentation Module	
								Controller module $\pm 0.3\%$ FS, 500 ms sampling, 4 loops*1	
								Controller module $\pm 0.3\%$ FS, 200 ms sampling, 4 loops	
								Controller module $\pm 0.1\%$ FS, 100 ms sampling, 4 loops	
		N R							Non-ring connection
	Ring connection								
				T S					Screw terminal block
	Screwless terminal block								
					4				4 loops
	Transistor output (4 points)								
									Analog current output (4 points)
	Analog voltage output (4 points)								
									0 None
	1 Current transformer input (4 points)								
									2 Digital output (4 points)
	3 Digital input (4 points)								
									0 None
	D Inspection certificate								
									Y Supports traceability certification
	T Tropicalization treatment								
								K Anti-sulfide treatment	
B Tropicalization treatment + inspection certificate									
								L Anti-sulfide treatment + inspection certificate	

*1. The NX-D15 cannot be used for multi-loop cooperative control and communication between modules.

NX-D35 (Model 2-channel)

Basic model No.	Type	Ring connection	Wiring method	Control loops	Output type	Option	Additional	Description	
NX-	D35							Network Instrumentation Module	
								Controller module $\pm 0.1\%$ FS, 100 ms sampling, 2 loops	
								Non-ring connection	
								Ring connection	
		N R							Screw terminal block
	Screwless terminal block								
				T S					2 loops
	Transistor output (4 points)								
									Analog current output (4 points)
	Analog voltage output (4 points)								
									M Transistor output (position proportional control)*1
	S 2 isolated analog current outputs (between channels, power supply)								
									G 2 isolated analog voltage outputs (between channels, power supply)
	0 None								
									1 Current transformer input (4 points)
	2 Digital output (4 points)								
									3 Digital input (4 points)
	4 Digital outputs (2 points, position proportional control)*1 *2								
									0 None
	D Inspection certificate								
								Y Supports traceability certification	
T Tropicalization treatment									
								K Anti-sulfide treatment	
B Tropicalization treatment + inspection certificate									
								L Anti-sulfide treatment + inspection certificate	

*1. Connect an external auxiliary relay. The motor is driven via the auxiliary relay.

*2. If the output type is M, option 4 cannot be selected.

Optional parts (sold separately)

Engineering tool

Name	Model No.
Smart Loader Package (with dedicated cable)	SLP-NX-J70
Smart Loader Package (without dedicated cable)	SLP-NX-J71

PID simulator

Name	Model No.
Smart Loader Package + PID simulator (with dedicated cable)	SLP-NX-J70PRO
Smart Loader Package + PID simulator (without dedicated cable)	SLP-NX-J71PRO

Parts

Name	Model No.
Side connector cover (for internal thread, 10 pcs.)	80700225-010
Side connector cover (for external thread, 10 pcs.)	80700224-010

1 DIGITAL CONTROLLERS
2 RECORDERS, INDICATORS
3 CONVERTERS
4 FLAME SAFEGUARD SYSTEM
5 ACTUATORS
6 SENSORS
7 GAS FLOW MEASUREMENT AND CONTROL PRODUCTS