

OMRON

Product Discontinuation Notices

April 1, 2009

Servomotors/Servo Drivers

No.2009131E

Discontinuation Notice of SINGLE AXIS POSITIONER(For DeviceNet).

Product Discontinuation SINGLE AXIS POSITIONER (For DeviceNet)



CJ1W-NC234

Recommended Replacement

Position Control Unit

Discontinuation date : The end of March, 2010

3F88M-DRT141

3F88M-PRO01

Caution on recommended replacement

It is necessary to The PLC units of SYSMAC CJ Series for using the CJ1W-NC234. And ladder program is necessary for control to CJ1W-NC234

Difference from discontinued product

Model	Body Color	Dimen sions	Wire connection	Mounting Dimensions	Charact eristics	Operation ratings	Operation methods
CJ1W-NC234					*	*	

** : Fully compatible

* : The change is a little/Almost compatible

-- : Not compatible

- : No corresponding specification

Product Discontinuation and recommended replacement

Product disc	continuation	Recommendable replacement		
Model	Product code	Model	Product code	
3F88M-DRT141	3F881276E	CJ1W-NC234	CJW0294B	
			cessary to Power Supply	
		Unit and CPU Unit of PLC	C's and DeviceNet slaves.	
3F88M-PRO01	3F881275G	CXONE-AL01C-V3	CX010172H	
		CXONE-AL01D-V3	CX010184A	
		It is necessary to	CX-One ver.3.1.	



Characteristic

Product discontinuation

 General Spe 	cifications				
Item		Specification			
Power-supply voltage		20.4 to 26.4 VDC Use an insulated power-supply unit.			
Curr	ent consumption	Without programming console: 135 mA or less With programming console connected: 170 mA or less			
Cable	Communication connector	Follow the corresponding DeviceNet specification.			
lengths	I/O connector	5 m or less			
	Console connector	2 m or less			
Ambient operating temperature		0 to 55°C			
	Ambient operating humidity	80% RH or less (No condensation should be present.)			
	Operating ambience	Free from corrosive gases			
Operating environment	Ambient storage temperature	-10 to 75°C			
	Ambient storage humidity	90% RH or less (No condensation should be present.)			
	Vibration resistance	9.8 m/s ² , 57.7 to 150 Hz; two hours each in three directions			
	Shock resistance	98 m/s ² , three times each in three directions			
Weight		600 g or less			
	Dimensions	Approx. W 46.6 x D 75 x H 137 mm * The dimensions do not include the connector or DIN track mounting attachment.			

Performance Specifications

	Item	Specification
	Model	3F88M-DRT141
	er of control axes	One axis/unit
	ontrol method	Open-loop control via pulse train output
Applica	able control driver	Servo motor/driver or stepping motor/driver of pulse train input type DeviceNet-compliant method: Standard remote I/O, standard explicit
DeviceNet communication methods		messages Omron's proprietary method: Advanced remote I/O, advanced explicit messages
Po	ositioning unit	User position unit (The desired units can be set.)
Positioning functions	Memory operation	Point No. start (64 data: advanced remote I/O, advanced explicit messages) Command block start (255 data: standard remote I/O, standard explicit messages)
	Direct operation	Remote I/Os (advanced, standard), explicit messages (advanced, standard)
Command block data	Capacity	255 data (Note that block No. 255 is reserved for origin search.)
	Setting method	Standard explicit message
	Backup	Parameters, point No. data and command-block data can be stored/updated to nonvolatile memory, up to 100,000 times.
	Methods	INC (positioning using relative coordinates)/ABS (positioning using absolute coordinates)
	Position command	Signed 32-bit data (The unit is set by the user.)
	Speed command	Percent setting relative to the maximum speed (The unit can be selected between 0.1% and 0.01%.) Unsigned 32-bit data (unit can be set by user): 1 Hz to 2.5 MHz (resolution setting: 1 Hz) Can be set for each position data *When using open collector output, the setting range is limited to 100 kHz
	Acceleration/decelera tion control	Automatic acceleration/deceleration control
	Acceleration/decelera tion methods	Linear/cycloid (S-curve)/distorted trapezoid/distorted sine
Positioning	Acceleration/decelera tion time	0 to 65533 ms (time required to reach maximum speed)
rosidoning	Backlash compensation	0 to 65535 pulses
	Dwell time	0 to 65535 ms (0 to 2,147,483,647 ms in the case of command block)
	Continuous positioning	Continuous positioning can be performed with a single start.
	Speed change	The speed can be changed during positioning. Percent setting relative to the maximum speed (unit can be selected between 0.1% and 0.01%) * Speed can be changed by using the advanced remote I/O or advanced explicit messages.
	Encoder interface	Line-receiver input: Maximum response frequency 500 kHz (before multiplication) Multiplication rate: fixed at x4 Used in present position management and misstep detection. Can be used with Omron's motor with absolute encoder (OMNUC W Series)

Characteristic

	Item			Specificat	tion	
	Origin search	Selectable direction of origin search Selectable sensor Settable origin search speed/origin search proximity speed				
	logging	Can	an be performed via a programming console, advanced remote I/O, dvanced explicit messages or external input			
			be set in the + a			
Functions	Teaching	adva	be performed via anced explicit me	ssages or externa	al input	
	deceleration stop	Can be performed via a programming console, remote I/Os (advanced, standard), explicit messages (advanced, standard) or external input				
		Can be performed via a programming console, advanced remote I/O or advanced explicit messages				
	Item			Specific	ation	
Con	nmunication protocol	С	ompliant with Dev	iceNet.		
	Supported connection (communication functions)		Master/slave connection: Remote I/O functions (advanced, standard), explicit message communication functions (advanced, standard)			
0	Connection format		The multi-drop method and T-branch method can be combined (for trunk lines and branch lines).			
Co	mmunication speed	5(500 k, 250 k or 125 k bits/second (selectable via switch)			
Co	mmunication media		Dedicated five-wire cable (two signal lines, two power lines and one shielded line)			
			Communication speed	Maximum network length	Length of branch line	Total length of branch line
			500 k bits/sec.	100 m or less (100 m or less)	6 m or less	39 m or less
Con	munication distance		250 k bits/sec.	250 m or less (100 m or less)	6 m or less	78 m or less
			125 k bits/sec.	500 m or less (100 m or less)	6 m or less	156 m or less
			The values in par able.	entheses indicate	the lengths of	small-diameter
Comm	Communication power supply		11 to 25 VDC			
	pply current consumption or communication	50 mA or less				
Maximum	No. of connectable nodes	64	64 units (including the configurator when connected)			
Maximum	Maximum No. of connectable slaves		3 units			

Product discontinuation

neral Specifications		
	N	lodel
Specification item	CJ1W-NC214/234	CJ1W-NC414/434
D	5 VD	OC (unit)
Power supply voltage	24 VDC (exter	nal power supply)
Allowable power supply voltage range	21.6 to 26.4 VDC (external power supply)
Internal current consumption	5 VDC, 270 mA maximum	5 VDC, 310 mA maximum
Current consumption of external power supply	24 VDC NC214 13 mA maximum NC234 44 mA maximum	24 VDC NC414 26 mA maximum NC434 90 mA maximum
Dimensions	90 × 51 × 65 (H × W × D)	90 × 62 × 65 (H × W v D)
Weight	170 g maximum	220 g maximum
Ambient operating temperature	0 te	55°C
Mounting position	CJ-series CPU Rack or	CJ-series ExpansionRack
Maximum number of units per system	5	units
Maximum number of units per CJ system	20 units (when up to 3 exp	pansion racks are connected)
Occupied unit	N	lo. 2
Applicable standards	EC d	irectives

Characteristic

erformance Spe	cifications			
Specifica	tion item	Mo	del	
opeanda	uonnem	CJ1W-NC214/234	CJ1W-NC414/434	
Applicable PLCs		CJ-series		
Number of occupied inputs/outputs	Number of words	18CH ^{*1}		
Controlled drivers		Servo Drive of pulse train input NC214/414: Open collector o NC234/434: Line driver outp	output type	
Pulse output method		Phase difference pulse output, pulse output, pulse + direction		
Controls	Control method	Open-loop control by pulse tra	in output	
Controls	Number of controlled axes	2 axes	4 axes	
Units of control		Pulse, mm, inch, degree		
Positioning functions		Memory operation, direct oper	ation	
	Independent operation	Independent, 2 axes	Independent, 4 axes	
	Linear interpolation	2 axes maximum	4 axes maximum	
	Arc interpolation	2 axes maximum	2 axes maximum	
	Speed control	Independent, 2 axes Independent, 4 a		
	Interrupt Constant-pitch Feed	Independent, 2 axes	Independent, 4 axes	
Position command	Data	-2147483648 to +2147483647		
r oslaon command	Number of data	500 per task (4 tasks per unit)		
Speed command Data		Position control: 1 to 21474836 Speed control: -2147483648 t However, this limits the maximu whether the maximum speed is kpps (NC214/414).	o 2147483647 um output frequency based on	
	Number of data	500 per task		
Acceleration/	Data	0 to 250000 ms		
deceleration time	Number of data	500 per task		
	Override	0.01% to 500.00% (settable fo	r each axis)	
Function	Software limits	-2147483647 to 2147483646 command unit (Settable for each axis)		
	Backlash Compensation	0 to 50000 command unit (settable for each axis)		
MPG and external	Number of input words	1 word (switchable for each controlled axis)		
encoder counter input	Input interface	Photocoupler input		
	Maximum response frequency	500 kHz		
	Number of input words	4 words (1 word per axis)		
Feedback pulse counter	Input interface	Line receiver input		
input	Maximum response frequency	NC234/434: 4 MHz (phase difference NC214/414: 500 kHz (phase difference		

Operation methods

Product discontinuation	Recommendable replacement
Program with Programming console of separate type.	Program with CX-Programmer of support Software for OMRON PLCs

Please make entry coping formats, if you have more additional items, for example accessories, packing and so on.