

DNS

AC Digital Single Axis NC Controller with Mitsubishi General Purpose Servo System

DNS series, self-contained single axis controllers are used in conjunction with Exact CNC Rotary and Rotary / Tilting Tables. Easily programming from the front mounted keyboard, available M-code connection to a machine control for an auto-start function. A portable electric handwheel is also available on request.



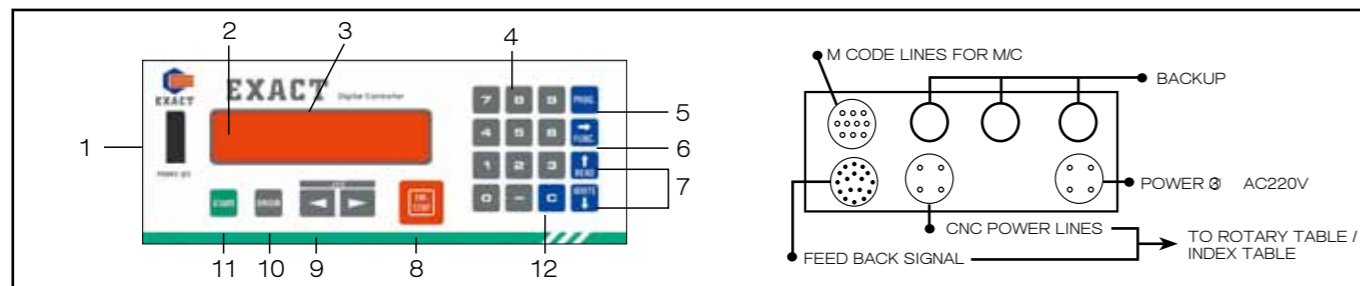
Model	TRT	NCT	HC
DNS 106	TRT-100, TRT-170	NCT-125	
DNS 110	TRT-250, TRT-320	NCT-170, NCT-200, NCT-250 NCT-250T, Multi-spindle series	HC-200, HC-250
DNS 120	TRT-450	NCT-(B)-320, NCT-(B)-400, NCT-B-500 NCT-320T, NCT-400T	HC-320, HC-400, HC-500
DNS 135		NCT-B-630, NCT-B-800, NCT-B-1000	

Item	Specification	Item	Specification
Dimensions	290 x 400 x 130mm (L x W x H)	Programmable angle	0.001°~360°
Input power	3 phase AC 220V ±10% 50 / 60 Hz	Mini increment	0.001°
Servo motor	AC servo with feedback	Feeding rate	F1~F2000
Servo driver	AC servo driver	Program capacity	9 programs, 99 lines for each program
Zero return	Available by software/ hardware	Loop count	Up to 999 times/ per step
Input system	Key board	Programmable pulse	1~±9999
Emergency stop	Emergency button and Power switch	Dividing into equal parts	2 - 999 equal division
Parameter setting	Available setting parameter	M Code	Connecting M/C
Program edit	Front Key board PROG writing	Weight	9.8kg

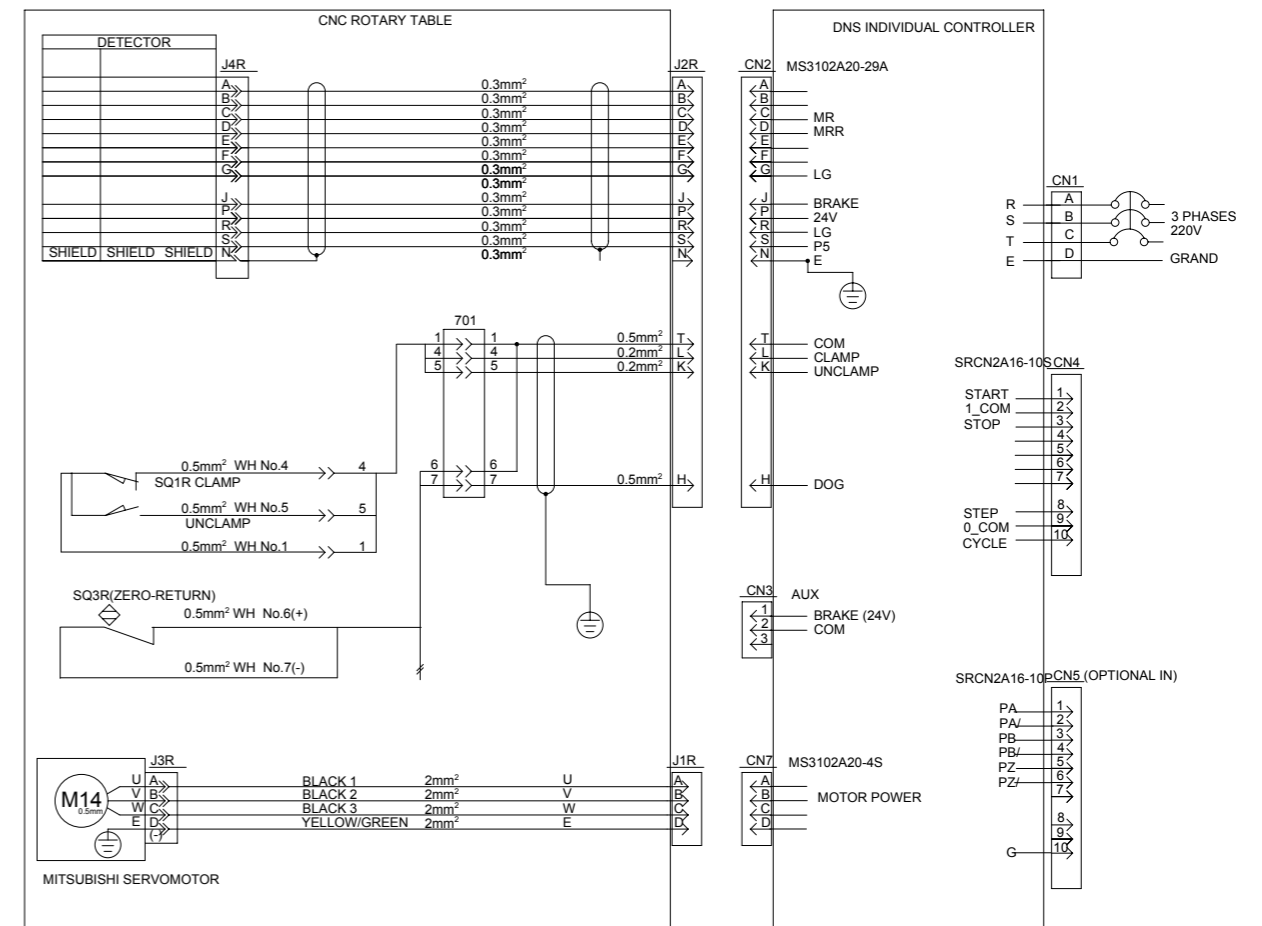
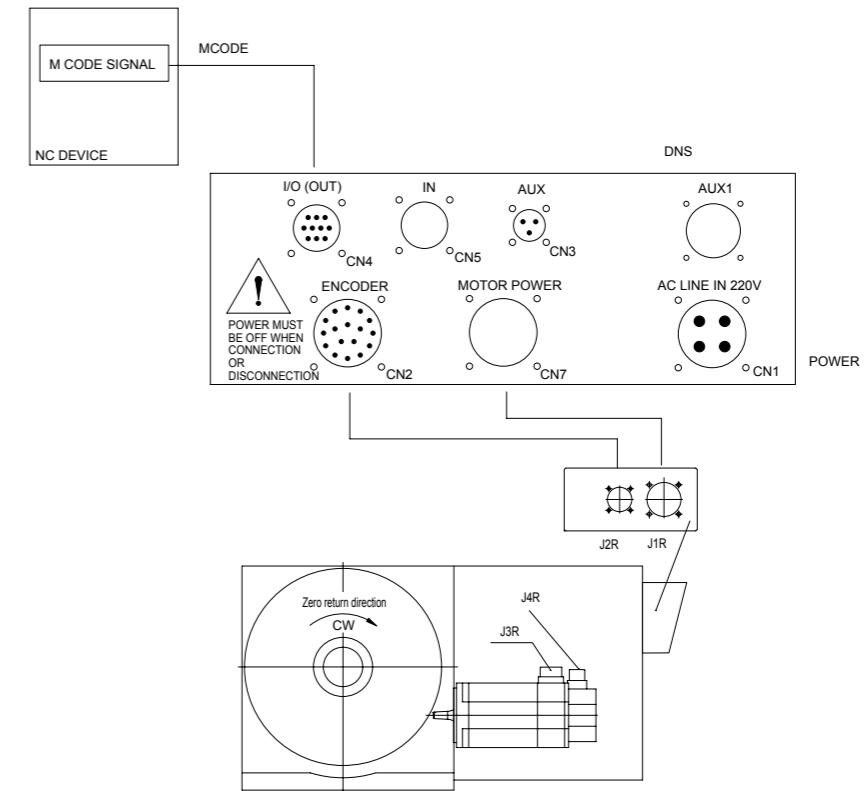
Standard accessories

External cables with connector			M-code connector	Handle-wheel
Main Power	Motor power	Motor feedback	⊙	*

Optional accessories



<p>1. Main power switch</p> <p>2. Program step display</p> <p>3. Data display Position, speed and loop</p> <p>4. Date enter keys Program edit</p> <p>5. Mode button Program edit / data display normal → glisten</p>	<p>6. Function button Program edit / angle speed Loop</p> <p>7. Program step browsing button</p> <p>8. Emergency stop button (Pause)</p>	<p>9. Jog button</p> <p>10. Zero return button</p> <p>11. Start button</p> <p>12. Clear button Program edit / clear error input Operation / position clear to "0"</p>
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DNS-A

AC Digital NC Controller with Yaskawa Servo System

DNS-A series, self-contained controllers are used in conjunction with Exact CNC Rotary and Rotary/Tilting Tables. Easily programming on the modern touch screen and editing by the same programming logic as machine CNC unit. A portable electric handwheel is available on request. DNS-A series is available to control 2 rotation axes on request.



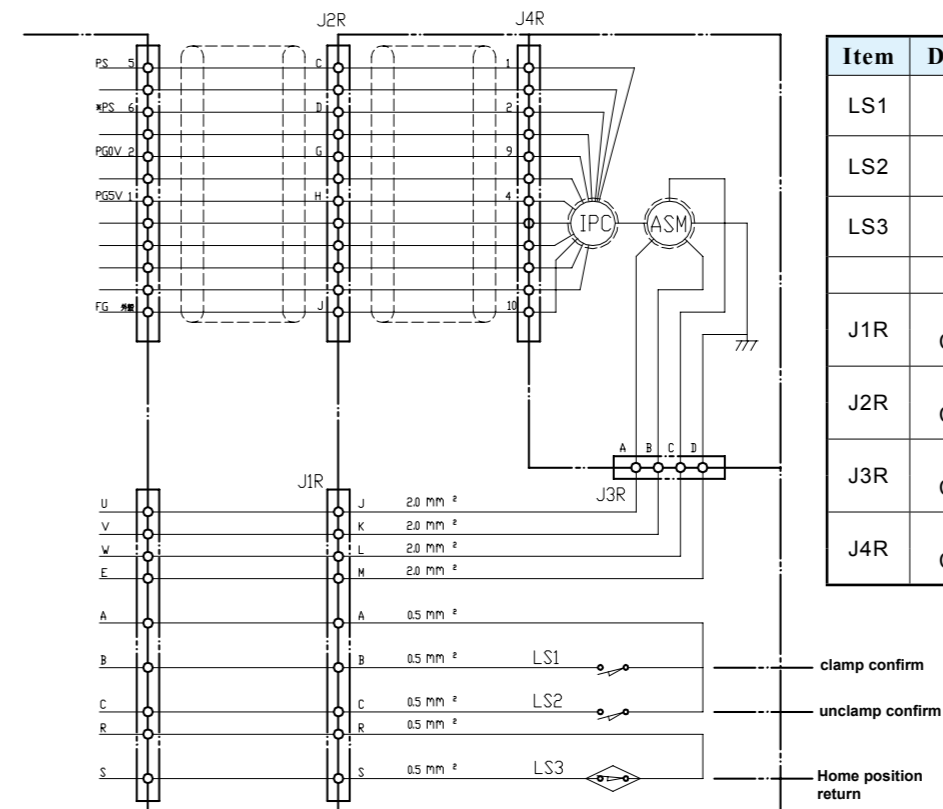
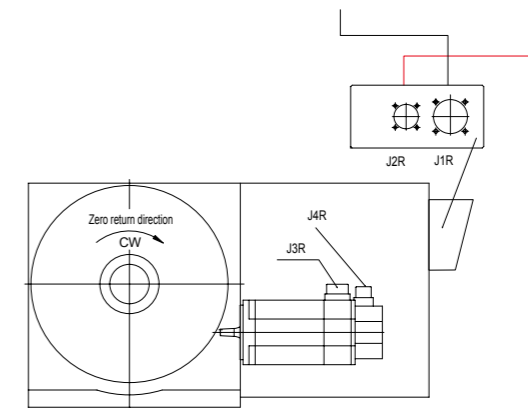
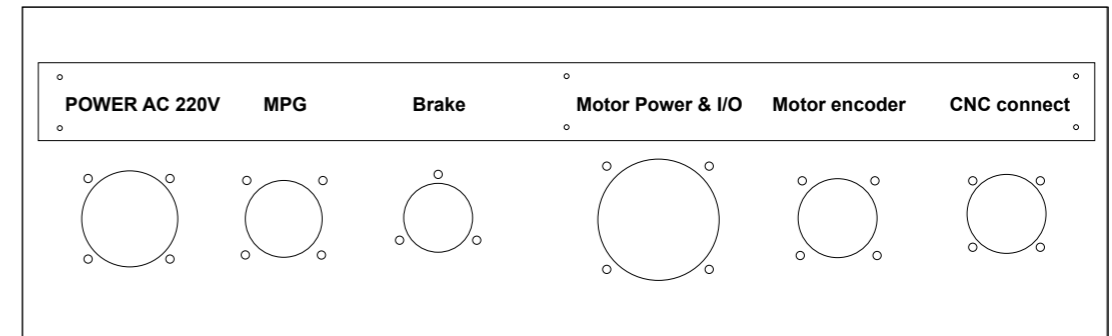
Model	TRT		NCT	HC
DNS 108A	TRT-100, TRT-170	Rotary Tilting	NCT-125	
DNS 113A			NCT-170, NCT-200, NCT-250 NCT-250T, Multi-spindle series	HC-200, HC-250
DNS 118A	TRT-250, NCT-320		NCT-250, NCT-250T	HC-250
DNS 129A	TRT-450	Rotary Tilting	NCT-(B)-320, NCT-(B)-400, NCT-B-500 NCT-320T, NCT-400T	HC-320, HC-400, HC-500
DNS 144A			NCT-B-630, NCT-B-800, NCT-B-1000	HC-630H, HC-800H
DNS 155A			NCT-B-1200 or special application	

Operation Panel



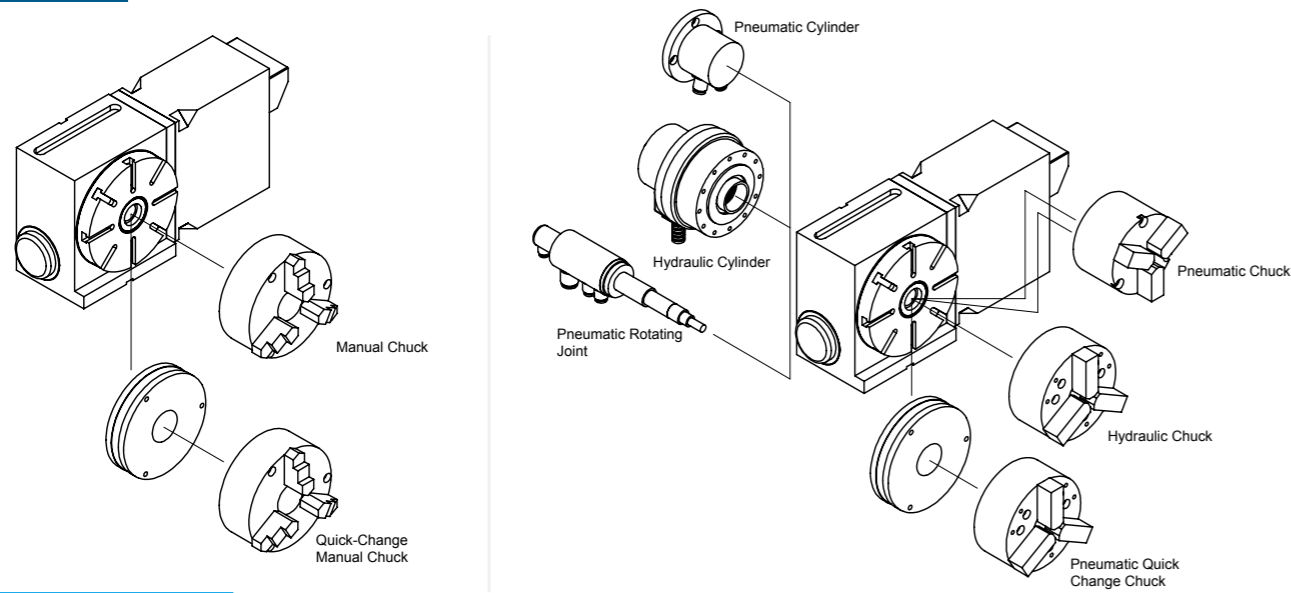
Operation Mode

Machine Coordination	Current axis coordination degree	JOG	Press JOG button and press A+ or A- to execute jog rotation
Feed rate	Current axis rotation speed (mm/min)	HOME	Under this module, press A+,A- to execute home position returned
G00	G00 Percentage setting (rapid feed)	A+	Rotary/Indexing table Clockwise jogging.
G01	G01 Percentage setting (cutting feed)	A-	Rotary/Indexing table Counter-Clockwise jogging.
MPG	Enable to operate Portable Electric Handwheel	AUTO	Execute program automatic working
Clamp	Rotary/Indexing Table clamping	MPG Simulation	For trial processing.
Unclamp	Rotary/Indexing Table unclamping	Single Block	G code execution is pause after one block is finished.



Item	Description	Specification	Brand
LS1	Proximity Switch	E2E2-X3D1 NO	OMRON
LS2	Proximity Switch	E2E2-X3D1 NO	OMRON
LS3	Proximity Switch	E2E2-X3D2 NC	OMRON
J1R	MS Connector	MS3102A28-11P MS3108A28-11S	JAF
J2R	MS Connector	MS3102A20-29P MS3108A20-29S	JAF
J3R	MS Connector	MS3102A18-10P MS3108A18-10S	JAF
J4R	MS Connector	CM10-R10P-D CM10-SP10S-M	JAF

Accessories



Manual Chuck

Model	Manual Chuck			Suitable model			
	Size	Sub Plate	TRT	NCT	HC	CT-V	
SC-5	5"	☉		NCT-125			
SK-6	6"	☉	TRT-170	NCT-170			
SK-7	7"	☉		NCT-200	HC-200	CT-200V	
SK-8	8"	☉	TRT-250	NCT-250	HC-250	CT-250V	
SK-10	10"	☉	TRT-320	NCT-(B)-320	HC-320	CT-320V	
SK-12	12"	☉	TRT-450	NCT-(B)-400 NCT-B-500	HC-400 HC-500		
SK-16	16"	☉	TRT-450	NCT-(B)-400 NCT-B-500	HC-400 HC-500		

PHC (Air over Oil intensifier)
Pneumatic source 5~8 bar
Solenoid valve DC24V or AC 110V/220V



Quick Change Chuck



Oil Manifold



Hydraulic unit
1HP x 4P, 12 liter / min, 40L
2HP x 4P, 30 liter / min, 70L



Connector Selection



Servomotor
(FANUC, MITSUBISHI.....)

Servo motor selection chart

FANUC	α2	α4	α8	α12	α22	α30
	α2 / 5000i	α4 / 5000i	α8 / 3000i	α12 / 3000i	α22 / 3000i	α30 / 3000i
α2 / 5000is	α4 / 5000is	α8 / 4000is	α12 / 4000is	α22 / 4000is	α30 / 4000is	
MITSUBISHI	HA-33NC-TS	HA-40NC-S	HA-80NC-S	HA-100NC-S	HA-200NC-S	X
	HF-75T	HF-54T	HF-104S	HF-204S	HF-354S	HF-453S
	HF-44T	HF-53T	HF-103T	HF-203S	HF-353S	X
SIEMENS	X	HC-SF102	HC-SF152	HC-SF202	HC-SF352	X
	1FT6034	1FT6062	1FT6064	1FT6082	1FT6084 / 6102	1FT6086
HEIDENHAIN	1FK7042	1FK7060	1FK7063	1FK7083	1FK7101 / 7103	1FK7103
	QSY-96G	QSY116C	QSY116J	QSY155B	QSY155D	QSY155F
FAGOR	FXM31	FXM32	FXM34	FXM54	FXM73	FXM74
	FKM22	FKM42	FKM44	FKM64	FKM66	X

※ If you have any other requirement, please contact us to get detail information.

Connector selection chart

Motor	axes	FANUC		Mitsubishi	
		Male connector	Female connector	Male connector	Female connector
Power Cable	Rotary axis	MS3102A28-11P	MS3108A28-11S	MS3102A28-11P	MS3108A28-11S
	Tilting axis	MS3102A28-11PZ	MS3108A28-11SZ	MS3102A28-11PZ	MS3108A28-11SZ
Signal Cable	Rotary axis	MS3102A20-29PW	MS3108A20-29SW	MS3102A22-14P	MS3108A22-14S
	Tilting axis	MS3102A20-29PZ	MS3108A20-29SZ	MS3102A22-14PZ	MS3108A22-14SZ

Encoder-Heidenhain

Indexing accuracy	±10"	±5"	±2.5"	±2"	±1"
	Incremental Encoder	ERN180	RON225 RON275 RON285	RON287	RON786
Absolute Encoder	ECN223F ECN225	RCN2380 RCN2390F RCN5380 RCN5390F	RCN2580 RCN2590F RCN5580 RCN5590F	RCN8380 RCN8390F	RCN8580 RCN8590F

※Other requirement, please contact us.