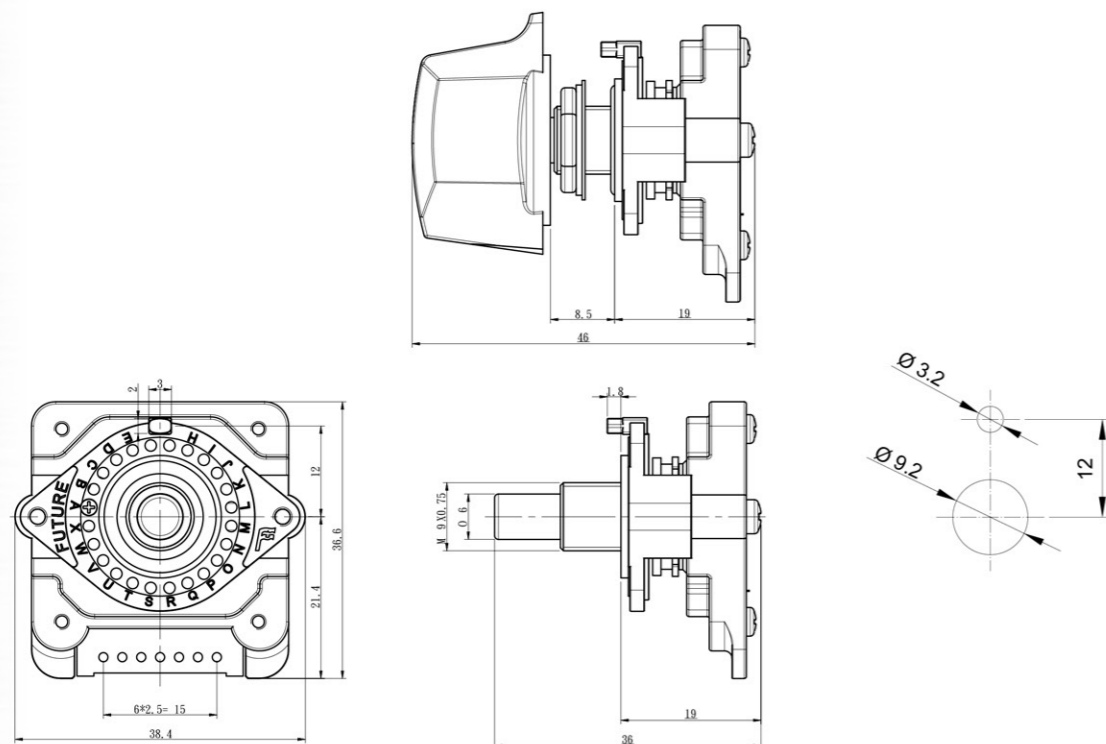


Specification

Type	Test Condition	Specification	
Operation Temperature	No Condensation	-10°C / +50°C	
Storage Temperature	No Condensation	-20°C / +70°C	
Mechanical	Revolution Starting Torque	0.1 ~ 0.2Nm (1 ~ 2kgf·cm)	
	Shaft Load	3Nm below	
	M9 Screw Load	2Nm below	
	Nut Stopper Load	3Nm below	
	Vibration Test	10~55~10Hz/m 1.5mm X, Y, Z 3direction 2h	
Electrical	Contact Resistance	100mΩ below	
	Isolation Resistance	Contact to contact DC250V for 1 min	500MΩ above
		Contact to case DC500V for 1 min	
	Withstanding Voltage	Contact to contact AC250V for 1 min	No exception
		Contact to case AC500V for 1 min	
Rate Load	AC	5V / 0.5A , 50V / 0.05A	
	DC	5V / 0.25A , 50V / 0.025A	
Life Expectancy	Unload Test 60RPM After 50,000 Rotation Test	Revolution Starting Torque	+10~-30% below
		Contact Resistance	150mΩ
		Insulation Resistance	50MΩ above
		Withstanding Voltage	No exception
Environmental	Temperatures +40°C ±5% Humidity 90% 48HR	Contact Resistance	100mΩ below
		Insulation Resistance	50MΩ above
		Withstanding Voltage	No exception
	Heat-Test +70°C ±5% 16HR	Contact Resistance	100mΩ below
		Revolution Starting Torque	0.1~0.2Nm
	Cold-Test -10°C ±5% 16HR	Contact Resistance	100mΩ below
		Revolution Starting Torque	0.1~0.2Nm

External Dimensions & Panel Cutout (mm)



※ The specification or contents in this catalog are subject to change without notice. 2019/07

DIGITAL CODE ROTARY SWITCH

NDS Series

NDS Series with multiple switching functions are applicable to the machine tool's operation panel for axis selection, feed rate and override, ...etc



Features

- Solid metal housing and clear graduation
- Provide 15°, 30°, 13.85° for option
- Provide various types of encoder codes for option
- With firm and skid-proof shafts
- Include inhibit and parity signal to avoid error occurrence
- Metal (Gold) coating contact points for stable and highly effective performance
- Waterproof design (IP65) and built-in o-ring
- New design for easy installation
- Save wiring operation and input signal



FUTURE LIFE TECHNOLOGY CO., LTD.

13Fl., No. 963, Jong-Jeng Rd., Jong-Ho Dist., New Taipei City, Taiwan 23544

TEL : 886 + 2-8227-5339 FAX : 886 + 2-8227-5572 Email : amaker@ms24.hinet.net



Ordering Information

NDS	01	J	CB
SERIES NAME	CODE	ANGLE	SOCKET
NDS	Output Encode	Step Angle	Socket
	01 Binary	Angle	CB 180° Socket
	02 Complement Binary	H 13.85 0-25	CS 90° Socket
	03 Gray	J 15 0-23	N None
	04 Complement Gray	N 30 0-11	
	00 PTP		
	OEM Order		

※ PTP for N Type only

H TYPE CODE (360°/26)13.85° ENCODE

Description: INH=inhibit signal ● =ON(contact to common signal)
P=parity signal A,B,C,D,E,F,G=terminal signal

A. Digital model NO. 01,Binary output with INH output
CODE NO:01H

TERMINAL	BIT No.	SET VALUE																										
		0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	
A	1	●																										
F	2		●																									
B	4			●																								
E	8				●																							
C	16					●																						
G	INH	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
D		COM																										

B. Digital model NO. 02,Complement Binary output with INH output
CODE NO:02H

TERMINAL	BIT No.	SET VALUE																										
		0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	
A	1	●																										
F	2		●																									
B	4			●																								
E	8				●																							
C	16					●																						
G	INH	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
D		COM																										

C. Digital model NO. 03,Gray output with P output
CODE NO:03H

TERMINAL	BIT No.	SET VALUE																										
		0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	
A	1	●																										
F	2		●																									
B	4			●																								
E	8				●																							
C	16					●																						
G	P	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
D		COM																										

D. Digital model NO. 04,Complement Gray output with P output
CODE NO:04H

TERMINAL	BIT No.	SET VALUE																										
		0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	
A	1	●																										
F	2		●																									
B	4			●																								
E	8				●																							
C	16					●																						
G	P	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
D		COM																										

Encode

N TYPE CODE (360° /12)30° ENCODE

Description: INH=inhibit signal ● =ON(contact to common signal)
P=parity signal A,B,C,D,E,F,G=terminal signal

A. Digital model NO. 01,Binary output with INH output
CODE NO:01N

TERMINAL	BIT No.	SET VALUE												
		0	1	2	3	4	5	6	7	8	9	10	11	
A	1	●												
F	2		●											
B	4			●										
E	8				●									
C	P	●	●	●	●	●	●	●	●	●	●	●	●	●
G	INH	●	●	●	●	●	●	●	●	●	●	●	●	●
D		COM												

B. Digital model NO. 02,Complement Binary output with INH output
CODE NO:02N

TERMINAL	BIT No.	SET VALUE												
		0	1	2	3	4	5	6	7	8	9	10	11	
A	1	●												
F	2		●											
B	4			●										
E	8				●									
C	P	●	●	●	●	●	●	●	●	●	●	●	●	●
G	INH	●	●	●	●	●	●	●	●	●	●	●	●	●
D		COM												

C. Digital model NO. 03,Gray output with P output
CODE NO:03N

TERMINAL	BIT No.	SET VALUE												
		0	1	2	3	4	5	6	7	8	9	10	11	
A	1	●												
F	2		●											
B	4			●										
E	8				●									
C	P	●	●	●	●	●	●	●	●	●	●	●	●	●
G		COM												

D. Digital model NO. 04,Complement Gray output with P output
CODE NO:04N

TERMINAL	BIT No.	SET VALUE												
		0	1	2	3	4	5	6	7	8	9	10	11	
A	1	●												
F	2		●											
B	4			●										
E	8				●									
C	P	●	●	●	●	●	●	●	●	●	●	●	●	●
G		COM												

E. Digital model NO. 00
CODE NO:00N

TERMINAL	BIT No.	SET VALUE												
		0	1	2	3	4	5	6	7	8	9	10	11	
A	1	●												
B	2		●											
C	3			●										
E	4				●									
F	5					●								
G	6						●							
D		COM												

J TYPE CODE (360°/24)15° ENCODE

Description: INH=inhibit signal ● =ON(contact to common signal)
P=parity signal A,B,C,D,E,F,G=terminal signal

A. Digital model NO. 01,Binary output with INH output
CODE NO:01J

TERMINAL	BIT No.	SET VALUE																									
		0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23		
A	1	●																									
F	2		●																								
B	4			●																							
E	8				●																						
C	16					●																					
G	INH	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
D		COM																									

B. Digital model NO. 02,Complement Binary output with INH output
CODE NO:02J

TERMINAL	BIT No.	SET VALUE																									
		0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23		
A	1	●																									
F	2		●																								
B	4			●																							
E	8				●																						
C	16					●																					
G	INH	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
D		COM																									

C. Digital model NO. 03,Gray output with P output
CODE NO:03J

TERMINAL	BIT No.	SET VALUE																									
		0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23		
A	1	●																									
F	2		●																								
B	4			●																							
E	8				●																						
C	16					●																					
G	P	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
D		COM																									

D. Digital model NO. 04,Complement Gray output with P output
CODE NO:04J

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