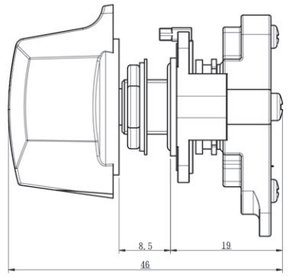
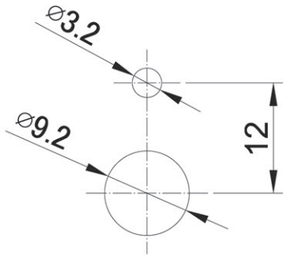
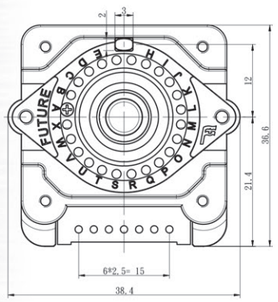
NDS Specification

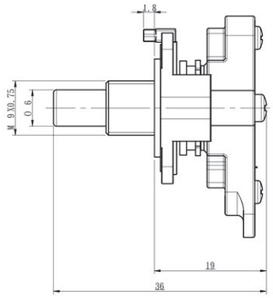
Type	Test Condition			Specification
Operation Temperature	No Condensation			-10℃ /+50℃
Storage Temperature	No Condensation			-20℃ /+70℃
Mechanical	Revolution Starting Torque			0.1 ~ 0.2Nm (1 ~ 2kgf•cm)
	Shaft Load			3Nm below
	M9 Screw Load			2Nm below
	Nut Stopper Load			3Nm below
	Vibration Test			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	±20% below
			Contact Resistance	150mΩ
			Insulation Resistance	50MΩ above
			Withstanding Voltage	No exception
Environmental	Temperatures+40℃ ±5% Humidity 90% 48HR		Contact Resistance	100mΩ below
			Insulation Resistance	50MΩ above
			Withstanding Voltage	No exception
	Heat-Test +70℃ ±5% 16HR		Contact Resistance	100mΩ below
			Revolution Starting Torque	0.1~0.2Nm
	Cold-Test -10℃ ±5% 16HR		Contact Resistance	100mΩ below
			Revolution Starting Torque	0.1~0.2Nm

NDS External Dimensions & Panel Cutout (mm)







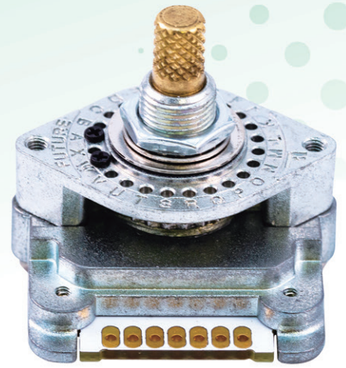


※ The specification or contents in this catalog are subject to change without notice. 2018/09

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 options
- Provide various types of encoder codes for options
- 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 point
- OEM / ODM accepted

[redacted]

DIGITAL CODE ROTARY SWITCH

Ordering Infomation

NDS	–	01	–	J	–	CB

SERIES NAME
NDS

CODE	
Output Encode	
01	Binary
02	Complement Binary
03	Gray
04	Complement Gray
00	PTP
OEM Order	

ANGLE		
Step Angle		
	Angle	Set Position
H	13.85	0-25
J	15	0-23
N	30	0-11

SOCKET	
Socket	
CB	180° Socket
CS	90° Socket
N	None

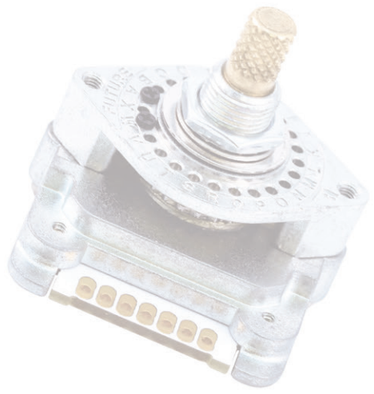
H TYPE CODE (360°/26)13.85° ENCODE

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

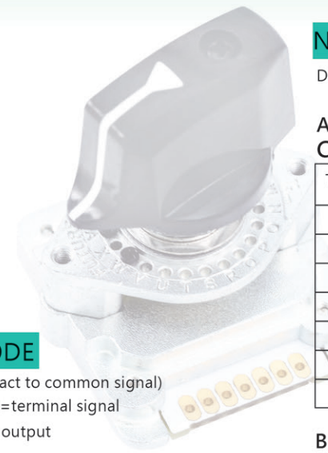
TERMINAL	BIT No.	SET VALUE 0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
A	1		●	●			●	●			●	●			●	●			●	●			●	●			●
F	2			●	●	●	●					●	●	●	●					●	●	●	●				
B	4					●	●	●	●	●	●	●	●									●	●	●	●	●	●
E	8									●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●		
C	16																	●	●	●	●	●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

NDS Encode



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 mo del 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

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																								

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													
D	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													
D	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		●										
F	2			●									
B	3				●								
E	4					●							
C	5						●						
G	6							●					
D	COM												

DIGITAL CODE ROTARY SWITCH