

Motortronics®

ROTARY ENCODERS

FA-CODER®



OIH35

SmartAbs®



INCREMENTAL インクリメンタル

特許出願中

APPLICATION

用途

- Brushless DC Servo motor control
AC, DC モータ制御

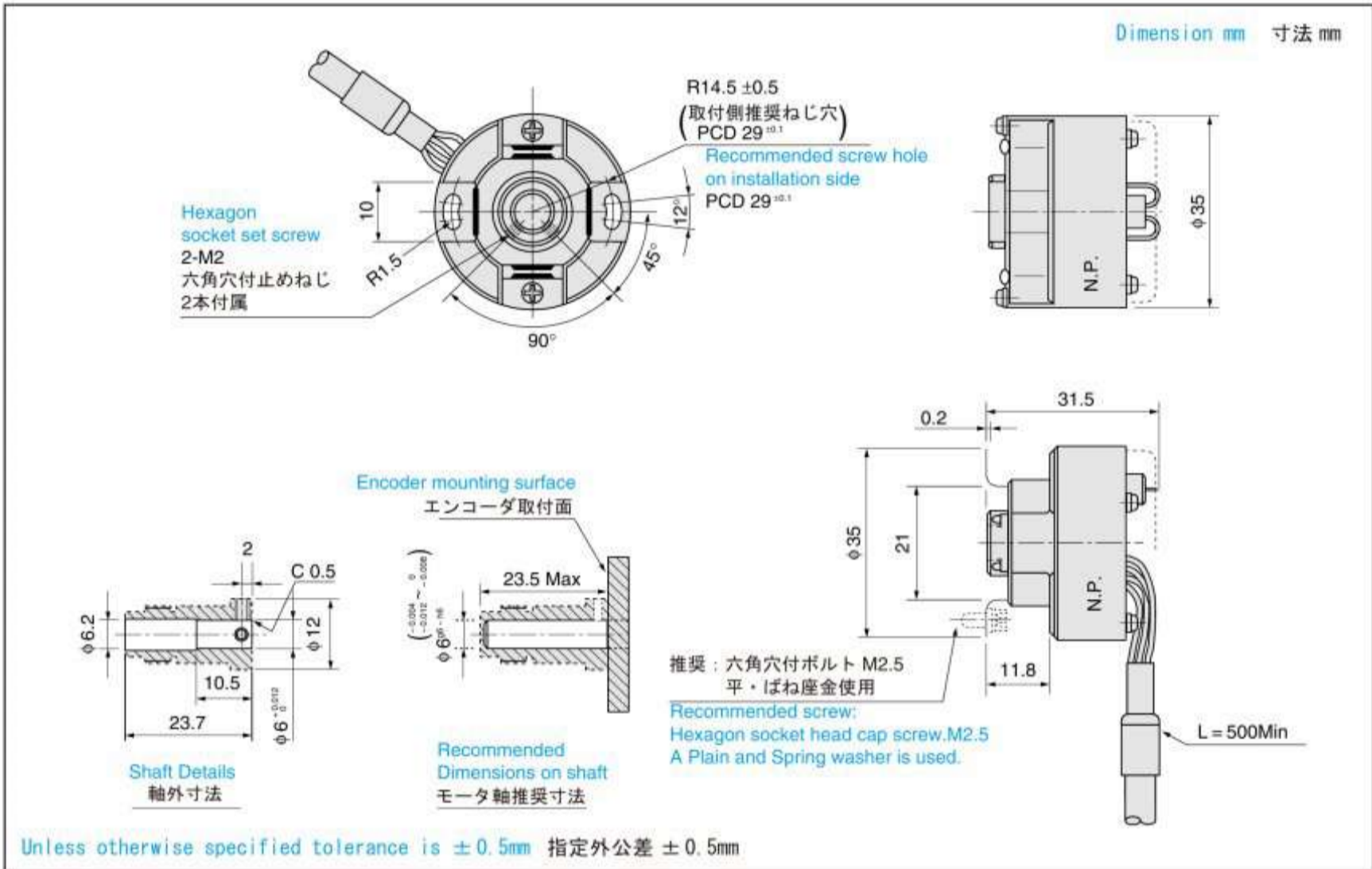
FEATURES

特長

- Easy to attach
取り付けが容易
- Ultra Small Size
超小形



TS5200N300 OIH35 Series



DESIGNATE THE NAME OF FUNCTION WHEN ORDERING

御注文の際は機能名で御指定ください。

OIH 35 - [] P [] - L [] 6 - 5 V

Optical
Incremental
Hollow Shaft
Encoder

Size
φ35mm

Resolution 分解能 C/T	Model No. 形式	TS □□□□□□□□		
		4極	6極	8極
500	TS5204			
1,000	TS5207			
1,024	TS5208			
2,000	TS5212			
2,048	TS5213			
2,500	TS5214	N300	N310	N330
3,000	TS5231			
5,000 (2,500X2)	TS5217			
6,000 (3,000X2)	TS5233			
4,096 (2,048X2)	TS5216			

X4 is possible, too.
×4も可能

Pole
極数
4: 4極
6: 6極
8: 8極

Voltage
電源電圧
5: +5V

Output phase
出力相
6: A, B, Z相
U, V, W相

Output form
出力形態
L: Line Driver

SPECIFICATIONS

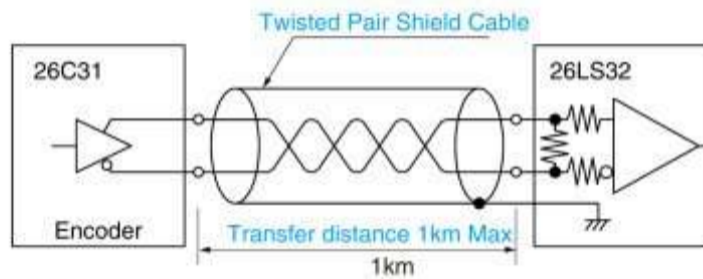
Electrical Spec.	
Resolution	500 6,000 C/T
Supply Voltage	DC+5V ± 5%
Consumption Current	200mA Max
Output Form	26C31
	Line Driver Source Current 20mA Max Sink Current 20mA Max
Maximum Response Frequency	200kHz Max
Rise time, Fall time	100nsec. Max

Mechanical Spec.	
Starting Torque	5.9x10 ⁻³ N · m 60gf · cm Max
Moment of Inertia	1.0x10 ⁻⁶ kg · m ² 10g · cm ² Max
Maximum Rotating Speed	6,000min ⁻¹ 6,000rpm
Mounting Tolerance	Radial Play 0.05mm TIR Max
	Axial End Play 0.2mm Max
	Shaft Inclination 0.1° Max
Operating Temp. Range	-20 +85°C
Storage Temp. Range	-25 +85°C
Protective Construction	IP = 40 Electronic Circuits Disclosed
Vibration	49m/s ²
	5G 1G
Shock	490m/s ² 50G
Mass	0.2kg Max

INCREMENTAL

CIRCUIT AT OUTPUT STAGE (EXAMPLE)

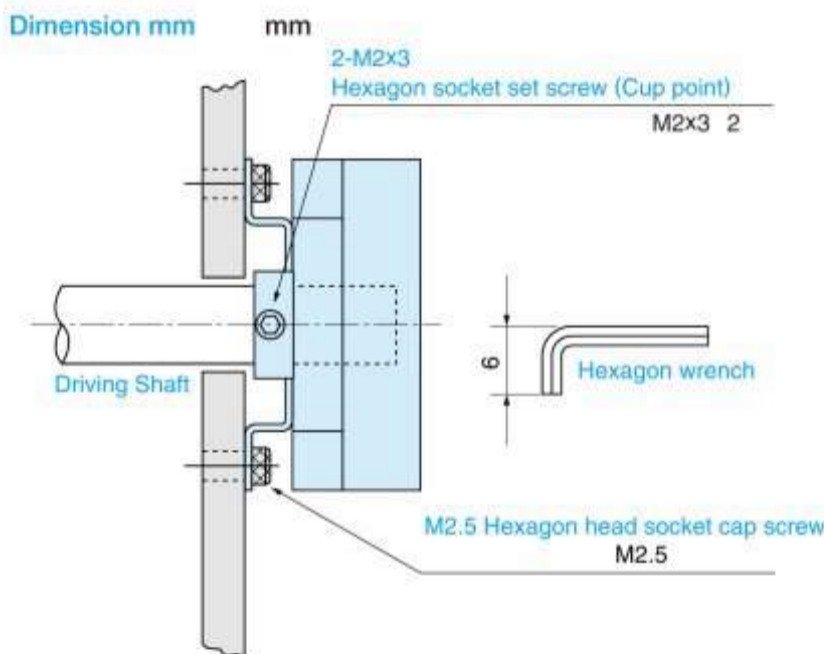
Line Driver Output



Note that transfer distance depends much on ambient condition.

Use transmission cable after verifying effects of impedance characteristics, etc.

ATTACHING WAY (EXAMPLE)



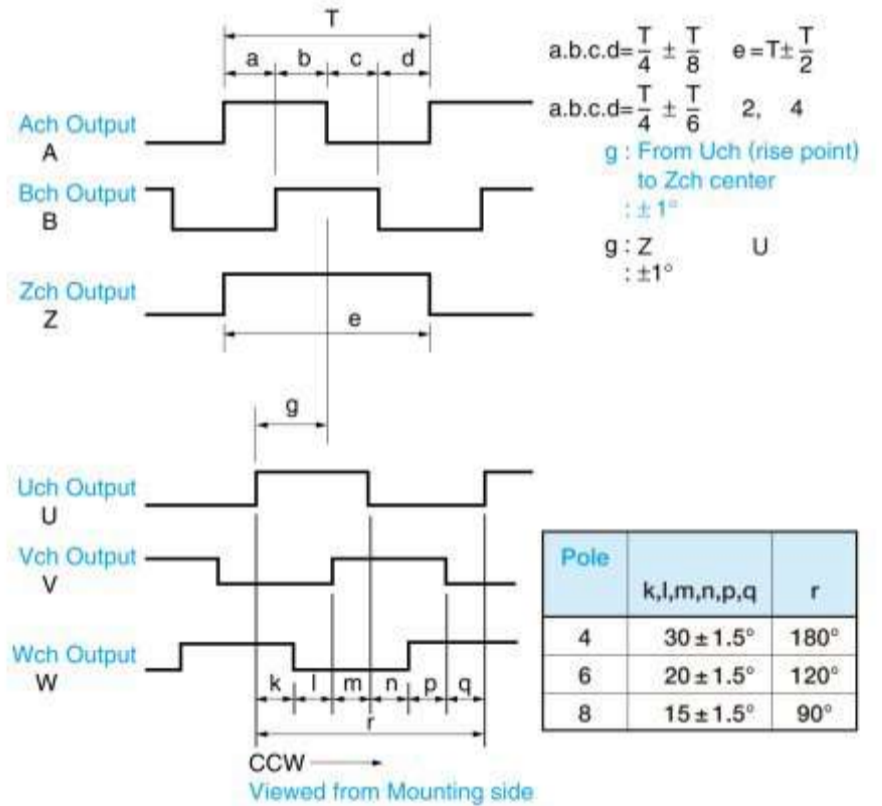
Please process and use the ball point wrench or hex wrench as shown in figure.

SPECIAL REQUIREMENTS

For special cases, please consult us.

- With cover
- Open collector output (5V,12V)
- Less wiring type
- Number of motors pole
- X4 resolution

OUTPUT PHASE SHIFT



CONNECTION TABLE

Lead color	Line driver Output
RED	DC+5V
BLACK	GND
BLUE	A ch Output
BLUE BLACK	A ch Output
GREEN	B ch Output
GREEN BLACK	B ch Output
YELLOW	Z ch Output
YELLOW BLACK	Z ch Output
BROWN	U ch Output
BROWN BLACK	U ch Output
GRAY	V ch Output
GRAY BLACK	V ch Output
WHITE	W ch Output
WHITE BLACK	W ch Output

ROTARY ENCODERS

FA-CODER®

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Digital techniques in business industry have been greatly advanced. Among these, necessity for converting analog like rotating value, shaft angle position, etc. to digital has been increased as measurement for physical value and automation for control system are advanced. Encoders, at present, have been widely used for factory automations, measurements, office automation devices, medical equipment, aviations and universal fields.

Various kinds of encoders (FA-CODER® as trade mark) from small to high resolution are available to meet all of the requirements. High performance encoders supported by these high disk producing techniques are available.

