

ROTARY ENCODERS

FA-CODER®



OIH35

SmartAbs®



INCREMENTAL

APPLICATION

Measuring Instruments

FEATURES

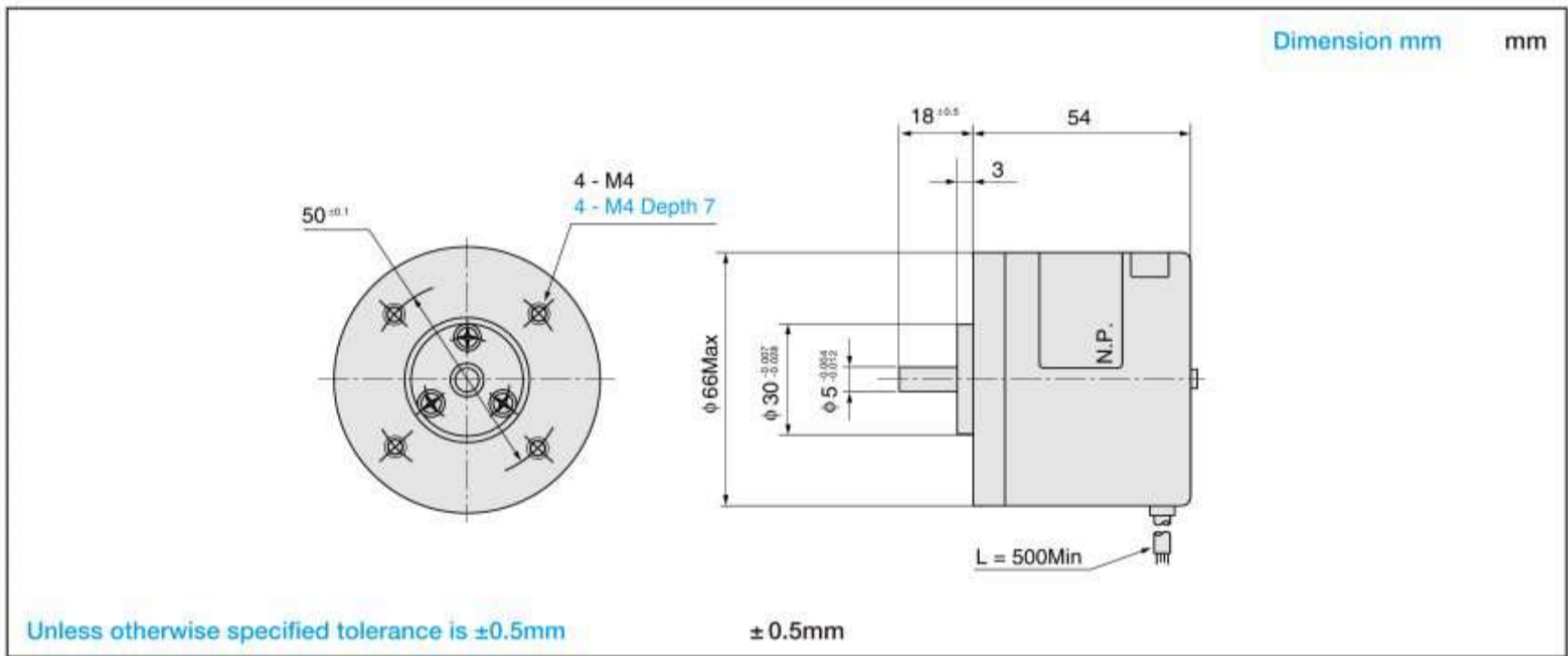
Wide ranging resolution

A lot of options

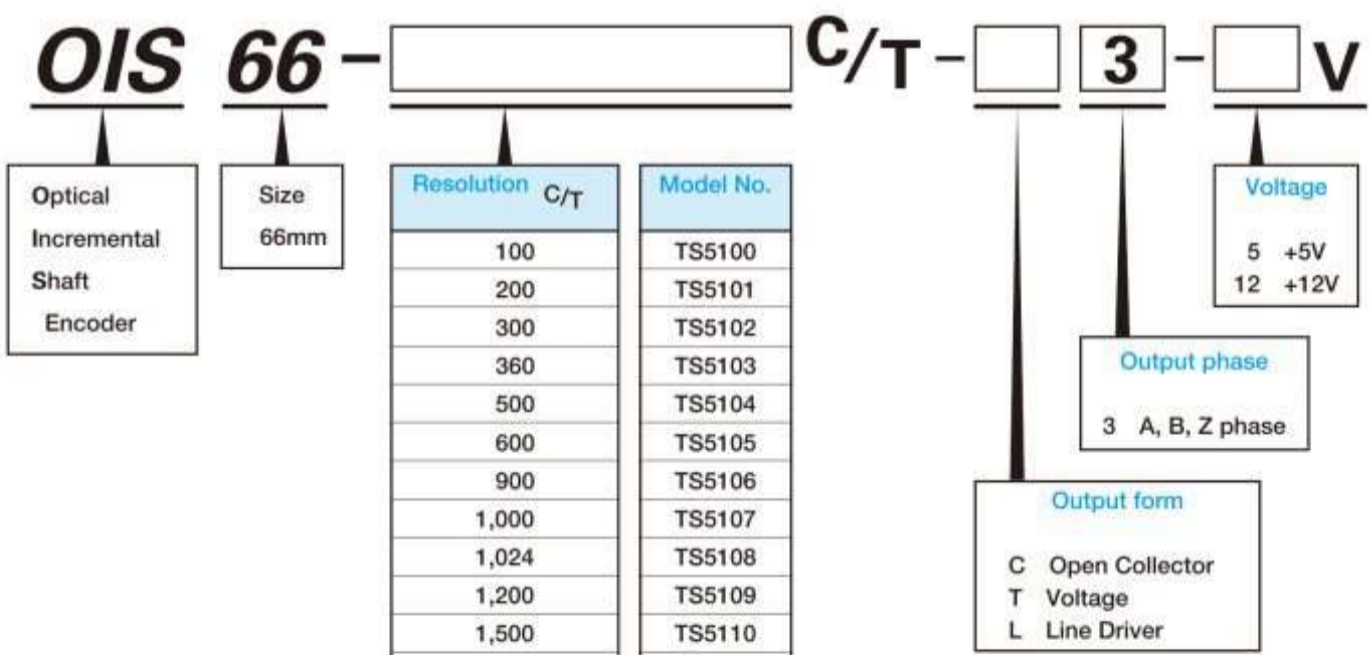


TS5100

OIS66Series



DESIGNATE THE NAME OF FUNCTION WHEN ORDERING



STANDARD ITEM

Description	Size	Resolution	Output form	Output Phase	Voltage	N-number N
OIS	66	[] C/T	C	3	5	N132
					12	N632
			T	3	5	N102
					12	N602
			L	3	5	N122

For special cases, please consult us.

SPECIFICATIONS

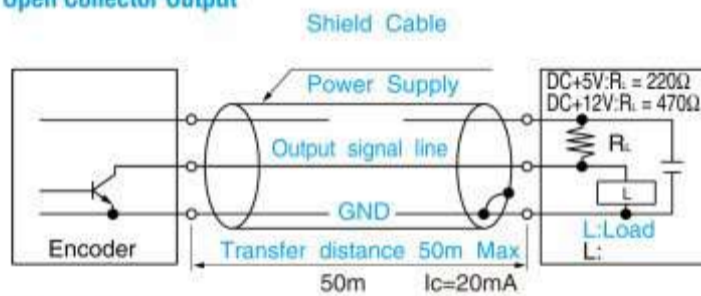
INCREMENTAL

Electrical Spec.			
Resolution	100 5,000 C/T		
Supply Voltage	DC+5V ± 5%	DC+12V ± 5%	
Consumption Current	200mA Max		
Output Form	Open Collector	Maximum Allowable Output Voltage 40V Maximum Allowable Sink Current 30mA	
	Voltage Output	H DC+2.4V Min L DC+0.4V Max	H DC+10V Min L DC+1V Max
	Line Driver	SN75113	Source Current 40mA Max Sink Current 40mA Max
Maximum Response Frequency	125kHz		
Rise time, Fall time	Voltage Output 1 μsec	Line Driver 200nsec	

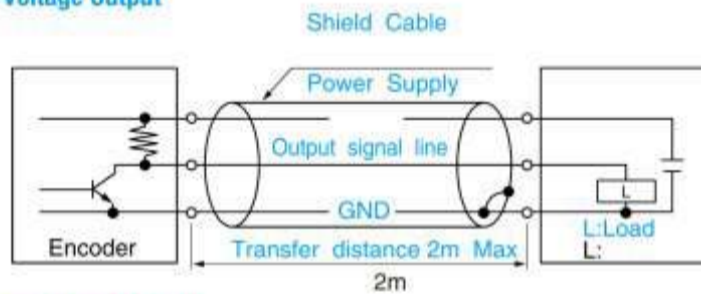
Mechanical Spec.		
Starting Torque	$2.9 \times 10^{-3} \text{ N} \cdot \text{m}$ 30gf · cm Max.	
Moment of Inertia	$3.0 \times 10^{-6} \text{ kg} \cdot \text{m}^2$ 30g · cm ² Max	
Maximum Rotating Speed	$7,200 \text{ min}^{-1}$ 7,200rpm	
Allowable Shaft Load	Radial	21.6N 2.2kgf Max
	Axial	12.7N 1.3kgf Max
Operating Temp. Range	-10 +70°C	
Storage Temp. Range	-20 +85°C	
Protective Construction	IP = 50	
Vibration	49m/s ² 5G	
Shock	490m/s ² 50G	
Mass	0.5kg Max	

CIRCUIT AT OUTPUT STAGE (EXAMPLE)

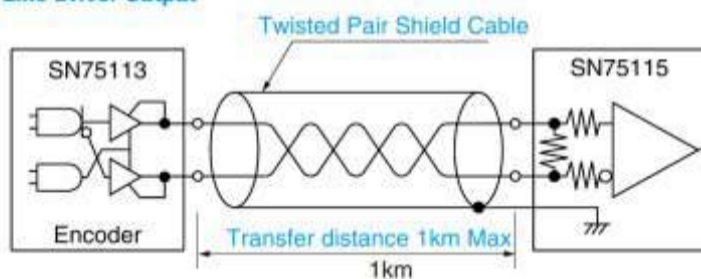
Open Collector Output



Voltage Output



Line Driver Output



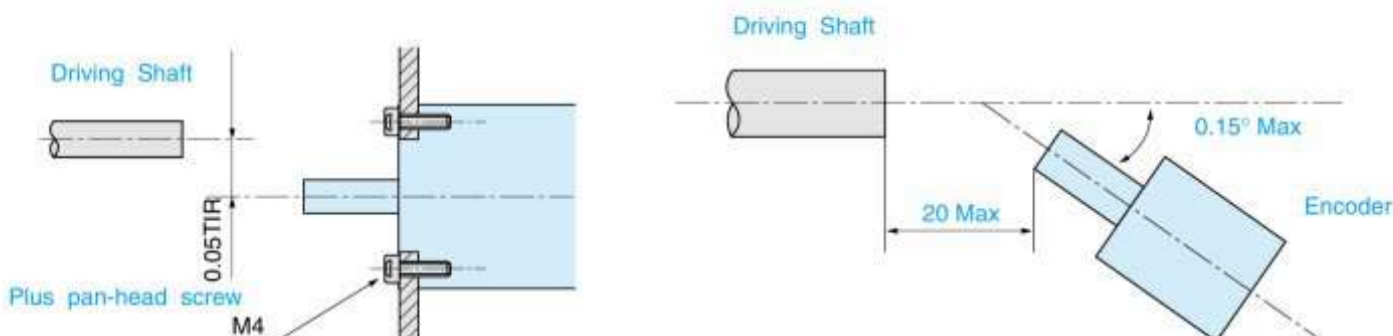
Note that transfer distance depends much on ambient condition.

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

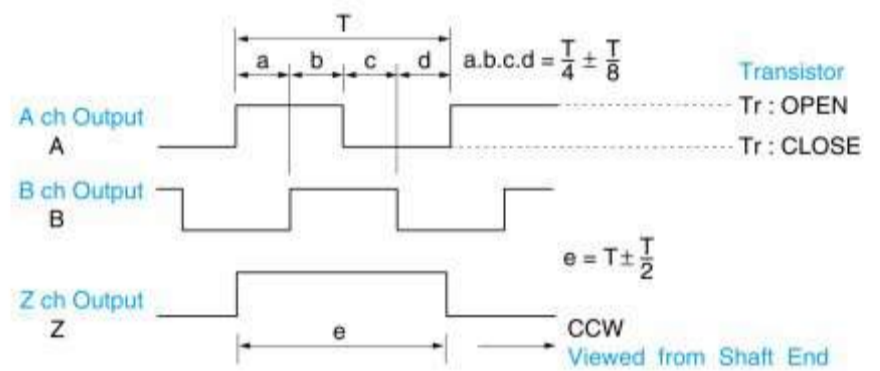
ATTACHING WAY (EXAMPLE)

Note that attaching alignment can be changed by the couplings when coupled to the driving shaft.

Dimension mm mm



OUTPUT PHASE SHIFT



Note For open collector output, above voltage wave form shall be obtained by loading a R_L shown in the left figure.

R_L

CONNECTION TABLE

Lead color	Open Collector Voltage Output		Line driver Output
	DC+5V	DC+12V	
RED	DC+5V	DC+12V	DC+5V
BLACK	GND		GND
YELLOW	Z ch Output		A ch Output
WHITE	GND		A ch Output
BLUE	A ch Output		B ch Output
GREEN	B ch Output		B ch Output
BROWN			Z ch Output
ORANGE			Z ch Output

ROTARY ENCODERS

FA-CODER[®]

FA-CODER[®]

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.

