

New Ultra Miniature size Encoder 7S Series



Feature

- Ultra mini size body : $\varnothing 7\text{mm}$, length 10mm
- High Resolution : Up to 400 resolution
- Environmental : IP50
- Operating Temperature : $-10 \sim +80^\circ\text{C}$

Application

- Robotics
- Motor
- Electrical actuator
- Semiconductor Machine
- SMT Machine
- Medical Machine
- Industrial Machine
- Inspection system
- Office Automation
- Carrier Machine

Model 7S - - 2MC - - 00E
 Resolution 100, 200, 400
 Signals A, B, Z Open Collector
 Cable length 50: 50cm

Electrical Spec

Resolution	100, 200, 400
Signals	A, B, Z (index signal)
Output Type	Open collector
Supply Voltage	4.5 ~ 5.5V
Current consumption	30 mA Max
Operating Frequency	100 KHz Max

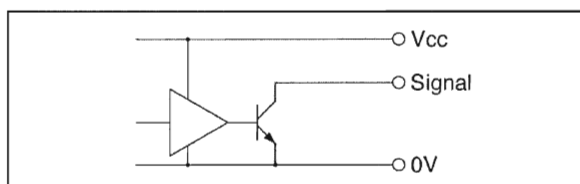
Environmental Spec

Operating Temperature	$-10^\circ\text{C} \sim +80^\circ\text{C}$
Storage Temperature	$-20^\circ\text{C} \sim +80^\circ\text{C}$
Humidity	RH 90% Max No condensation
Vibration	55Hz/1.5mm X, Y, Z each 2H
Shock	500m/s^2 X, Y, Z each 3 times

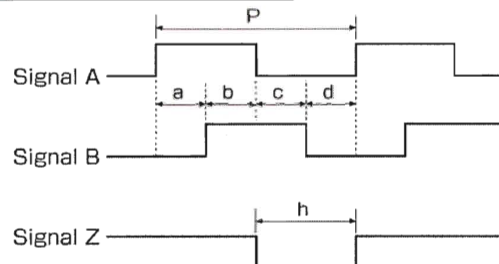
Mechanical Spec

Starting Torque	$3.0 \times 10^{-4} \text{N} \cdot \text{m}$ or Less
Angular acceleration	$1 \times 10^5 \text{rad/s}^2$
Sealing	IP50
Allowable load to shaft	Thrust 0.98N Radial 1.90N
Moment of inertia	$1 \times 10^{-9} \text{kg} \cdot \text{m}^2$
Max Rotating speed	6000 r/min

Circuit of output signal



Wave Form

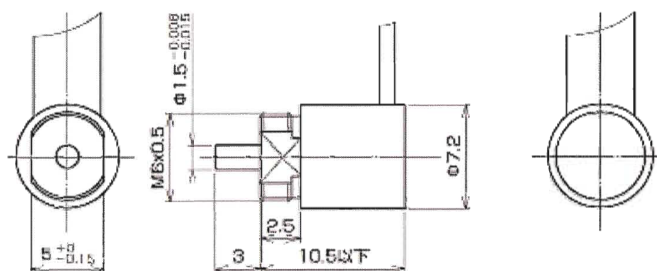


$$P = \frac{1}{\text{1 resolution}}$$

$$a, b, c, d = \frac{P}{4} \pm \frac{P}{8} \quad \frac{P}{4} \leq h \leq \frac{3P}{4}$$

$$\text{Duty} = (A, B) \quad \frac{P}{2} \pm \frac{P}{4}$$

Dimensions



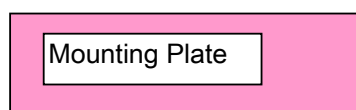
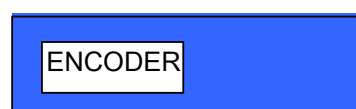
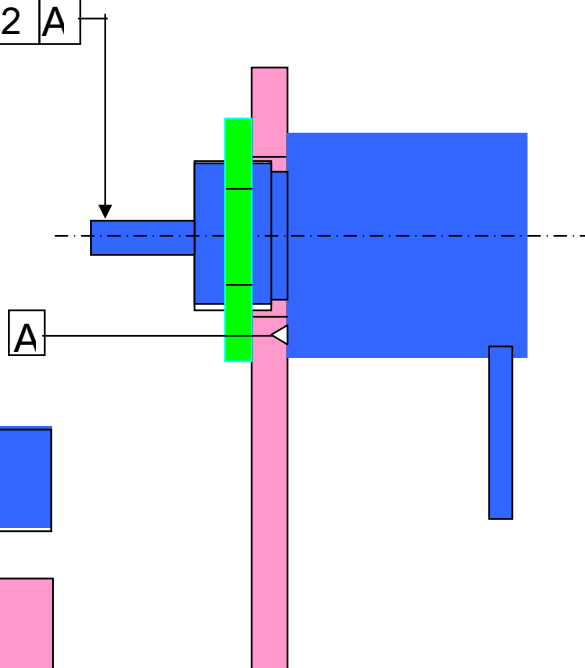
Note: Effective outer diameter with label is 7.4mm

■ Wiring

P in	Color	Signal
1	RED	Vcc
2	WHITE	0V
3	BLUE	B
4	WHITE	A
5	BLUE	Z

■ Mounting

⊥	0.05
↗	0.02 A



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