


Selection Guide

Incremental rotary encoder(E68S series)

Ordering information

E68S	15	1024	6	L	5
Series	Shaft diameter	Pulse/1Revolution	Output phase	Output	Power supply
Diameter ϕ 68mm, shaft type	ϕ 15mm	1024 P/R	6 : A, \bar{A} , B, \bar{B} , Z, \bar{Z}	L : Line driver output	5VDC \pm 5%

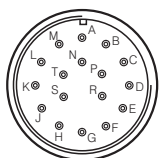
Specifications

Item		Diameter ϕ 68mm shaft type Incremental Rotary encoder
Model	Line Driver output	E68S15 - 1024 - 6 - L - 5
Appearances & Dimensions		
		[ϕ 68mm, L123mm]
Resolution(P/R)		1024 (Not indicated resolution is customizable.)
Electrical specification	Output phase	A, \bar{A} , B, \bar{B} , Z, \bar{Z} phase
	Phase difference of output	Phase difference between A and B phase : $\frac{T}{4} \pm \frac{T}{8}$ (T=1 cycle of A phase)
	Output Duty rate	• A, B phase Duty ratio : $\frac{T}{2} \pm \frac{T}{8}$ • Z phase Duty ratio : $T \pm \frac{T}{4}$
	Control output	• Low \Rightarrow Load current : Max. 20mA, Residual voltage : Max. 0.5VDC • High \Rightarrow Load current : Max. -20mA, Output voltage : Min. 2.5VDC
	Response time(Rise/Fall)	Max. 0.5 μ s (Cable:1m, I sink = 20mA)
	Power supply	5VDC \pm 5% (Ripple P-P : Max. 5%)
	Max. Response frequency	180kHz
	Current consumption	Max. 50mA
	Insulation resistance	Min. 100M Ω (at 500VDC mega between all terminals and case)
	Dielectric strength	750VAC 50/60Hz for 1 minute (Between all terminals and case)
Connection		Connector connection (MS3102A20-29P)
Mechanical specification	Starting torque	1.5kgf \cdot cm (Max. 0.15N \cdot m)
	Shaft loading	Radial : 20kgf, Thrust : 10kgf
	Max. allowable revolution	(★Note1) 6,500rpm
Vibration		1.5mm amplitude at frequency of 10 ~ 55Hz in each of X, Y, Z directions for 2 hours
Shock		Max. 50G
Ambient temperature		-10 ~ 70 $^{\circ}$ C (at non-freezing status), Storage: -25 ~ 85 $^{\circ}$ C
Ambient humidity		35~85%RH, Storage: 35~90%RH
Protection		IP64 (IEC standard)
Unit weight		Approx. 550g

※ (★Note1) Max. allowable revolution \geq Max. response revolution 【Max. response revolution (rpm) = $\frac{\text{Max. response frequency}}{\text{Resolution}} \times 60 \text{ sec}$ 】
Please select the resolution to make lower max. revolution than max. allowable revolution.

Connections

Pin No.	Cable color	Pin No.	Cable color
A	A phase	K	0V
B	Z phase	L	NC
C	B phase	M	0V
D	NC	N	\bar{A} phase
E	5VDC	P	\bar{Z} phase
F	NC	R	\bar{B} phase
G	NC	S	NC
H	5VDC	T	Shield(F.G)
J	NC	—	—



※N.C : Not Connected.
※Terminals E and H, K and M are connected internally.

Dimensions

