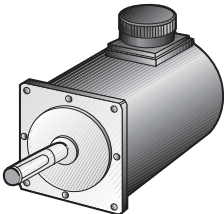


## ROTARY ENCODER(E68S15 SERIES)

### Ordering information

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

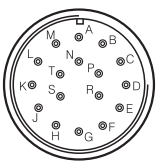
### Specifications

Item		Diameter $\phi$ 68mm shaft type Incremental Rotary encoder
Model	Line Driver output	<b>E68S15 - 1024 - 6 - L-5</b>
Appearances		
		[ $\phi$ 68mm, L123mm ]
Resolution(P/R)		1024 (Not indicated type is available to customize)
Electrical specification	Output phase	A, $\bar{A}$ , B, $\bar{B}$ , Z, $\bar{Z}$ phase
	Phase difference of output	Output between A and B phase : $\frac{T}{4} \pm \frac{T}{8}$ (T=1cycle 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 $\mu$ 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 $\Omega$ (at 500VDC)
	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
	Deviation of shaft position	Radial : Max. 0.1mm, Thrust : Max. 0.2mm
	Max. allowable revolution	<b>(★Note1)</b> 6,500rpm
Vibration		1.5mm amplitude at frequency of 10 ~ 55Hz in each of X, Y, Z directions for 2 hours
Shock		Max. 30G
Ambient temperature		0 ~ 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

