

# E68S15

## ∅ 68mm/shaft type encoder (INCREMENTAL TYPE)

### ■ Features



### ■ Ordering information

E68S15	1024	6	L
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Series	Pulses/Revolution	Output phase	Output method	Power supply
Incremental type encoder diameter ∅ 68, shaft ∅ 15	1024	6:A, B, Z, $\bar{A}$ , $\bar{B}$ , $\bar{Z}$	L:Line Driver output	L:5VDC $\pm$ 5%

### ■ Specification

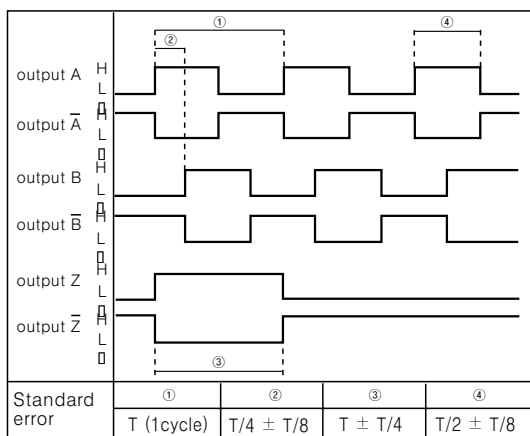
Item	Rotary Encoder(INCREMENTAL TYPE)	
Model	E68S15 -□□□□ - 6 - L	
Pulses/Revolution (P/R)	1024 pulse(P/R)	
Output phase	A, B, Z, $\bar{A}$ , $\bar{B}$ , $\bar{Z}$ Phase	
Output of phase difference	phase difference between A and Bphase:T/4 $\pm$ T/8(T=1cycle of A phase)	
Output DUTY rate	A, B phase DUTY rate:T/2 $\pm$ T/8, Z phase DUTY rate:T $\pm$ T/4	
Control output	TOTEM POLE output	—
	LINE DRIVER output	LOW $\Rightarrow$ Load current : Max. 20mA, Residual voltage : Max. 0.5V HIGH $\Rightarrow$ Load current : Max. 20mA, Output voltage : Max. 2.5V
Response time (Rise & Fall)	TOTEM POLE output	—
	LINE DRIVER output	Rising time : Max. 1 $\mu$ s(Cable : 1m, at I sink = 10mA) Falling time : Max. 700nS(Cable 1m, at I sink = 20mA)
Power supply	TOTEM POLE output	—
	LINE DRIVER output	5VDC $\pm$ 5%(Ripple P-P:Max. 5%)
Current consumption	TOTEM POLE output	—
	LINE DRIVER output	Max. 100mA
Max. Response frequency	110KHz	
Connection	Connect : MS3102A20-29P	
Starting torque	Max. 500gf · cm(49,000 $\mu$ N · m)	
Staff loading	Radial:20Kg, Thrust:10Kg	
Devition of shaft position	Radial:Max. 0.1mm, Thrust:Max. 0.2mm	
Mechanical revolution(rpm)	6,500rpm	
Insulation resistance	Min. 50M $\Omega$ (at 500VDC)	
Dielectric strength	500VAC 50/60Hz for 1minute	
Vibration	1.5mm amplitude at frequency of 10 to 55Hz in each of X, Y, Z directions for 2 hours	
Shock	Max. 30G	
Ambient temperature	Operating:0 to 70 $^{\circ}$ C(non-freezing condition), Storage:-25 to 85 $^{\circ}$ C	
Ambient humidity	Operating : 35 to 85%RH, Storage : 35 to 90%RH	
Protection	IP50(IEC Specification)	
Weight	About 550g	

※ Plus numbers can be added by client's requirement.  
 ※ The weight of above chart is not weight.

## Control output circuit



## Output waveform

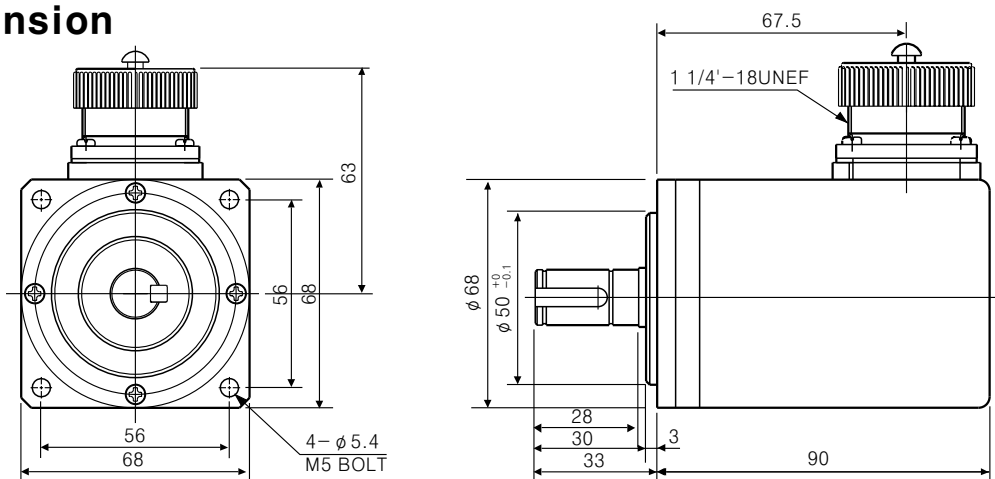


※ Revolving direction : CW diection

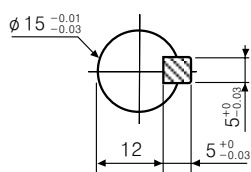
## Connection

Code	1/ D conection	Code	1/ D conection
A	A Phase	K	0V
B	Z Phase	L	Nc
C	B Phase	M	0V(Nc)
D	Nc	N	A̅ Phase
E	Nc(DC 5V)	P	Z̅ Phase
F	Nc	R	B̅ Phase
G	Nc	S	Nc
H	DC5V(Nc)	T	SHIELD(Nc)
J	Nc	—	—

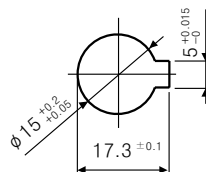
## Dimension



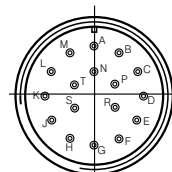
● Shaft dimension



● Shaft hole dimension



● PIN Connection



Unit:mm