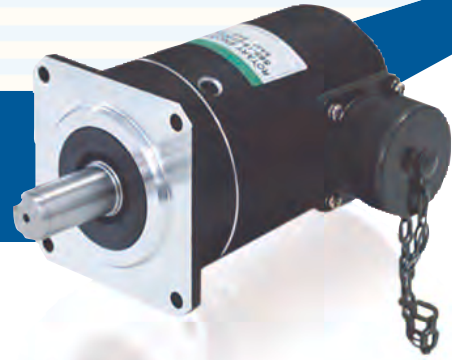


S68A Series

■Features : Machine tools, Industrial robot,
Rigid shaft type (Industrial robot),
Various resolution



Model

INCREMENTAL
SHAFT TYPE
Outer Diameter Ø68

Shaft Size

15 : Ø15 *Option: 10 : Ø10

S68A - 15 -

Resolution(P/R)

0100 0500 1000
1024 2000 2048

Output Signal

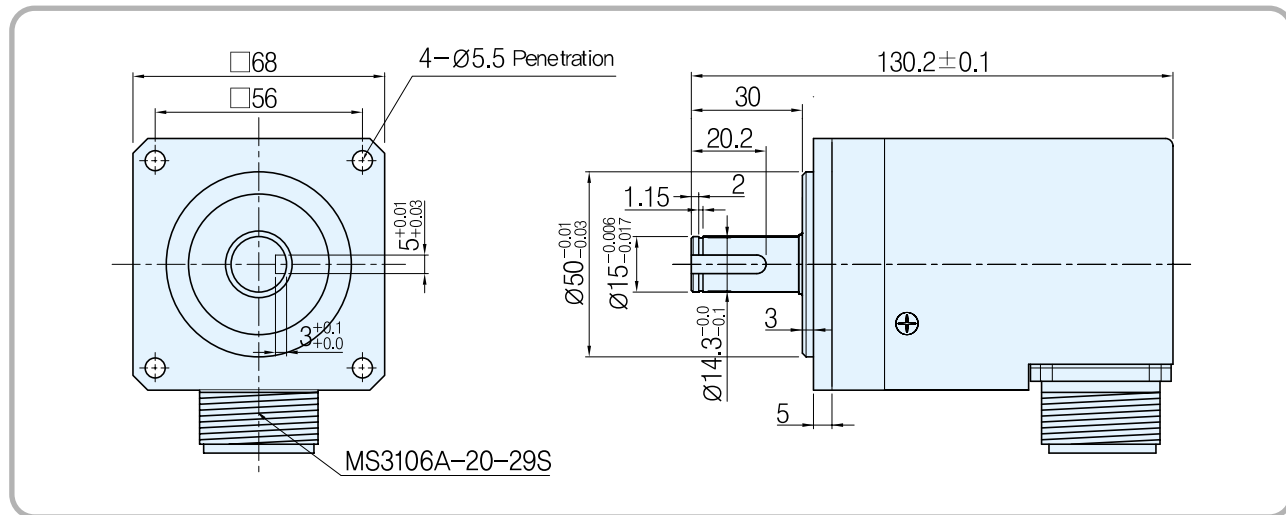
Z : A, B, Z
U : A, \bar{A} , B, \bar{B}
V : A, \bar{A} , B, \bar{B} , Z, \bar{Z}

Output Form

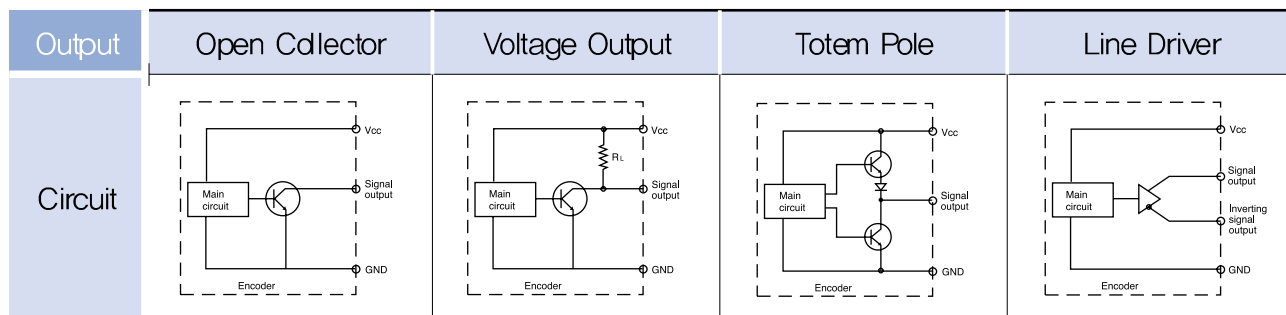
O : Open Collector
V : Voltage Output
T : Totem Pole
L : Line Driver

⚠ Caution: Output power may be different depending on the type of output and be sure to check the electric spec.

External Dimension



Output Circuit



Electrical Spec.

Output type	Open Collector	Voltage Output	Totem Pole	Line Driver
Power Supply	DC +5[V], +15[V] Ripple p-p : less than 5%	DC +5[V], +15[V] Ripple p-p : less than 5%	DC +5[V] ~ 24[V] Ripple p-p : less than 5%	DC +5[V] Ripple p-p : less than 5%
Consuming Current (In case of no load)	70mA Max	70mA Max	150mA Max	150mA Max
Maximum Response Frequency	150 KHz (100 ~ 2048 P/R)			
Output voltage	Less than $V_i/0.5[V]$ / More than $V_i/2.5[V]$ (In case of inputting +5V) / More than $V_i/10[V]$ (In case of inputting +15V) / More than $V_i/18[V]$ (In case of inputting +24V)			
Output current	Less than 20mA	Less than 20mA	Less than 10mA	Less than 20mA
Rising, decline time	Less than 3μs	Less than 3μs	Less than 1μs	Less than 0.1μs
Common conditions	In case that the cable length of output side is 1[M] and load resistance is less than 1[kΩ]			

Mechanical Spec.

Starting Torque	800g - cm Max
Maximum number of revolution	8000 rpm
Bearing lifetime	100,000 [hr] (In case of rotating by 6000rpm)
Allowable Shaft Load	Radial : 5kg Max Axial : 5kg Max
Position deflection of allowable shaft	Radial : Less than 0.05 mm Axial : Less than 0.2mm
Connection Table	MS3102A20-29P
weight	720g

Rigid Spec.

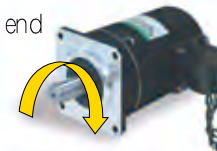
Operating Temp. Range	-10°C ~ +70°C (No freezing)
Preserving temp	-20°C ~ +85°C
Using humidity	35% ~ +85% RH
Preserving Humidity	35% ~ +95% RH
Internal Vibration	5G
Internal Shock	50G
Degree of Protection	IP 54

Output Phase Shift

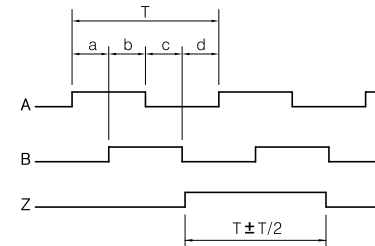
CW → Clockwise viewed from shaft end

$$a + b, c + d = T/2 \pm T/10$$

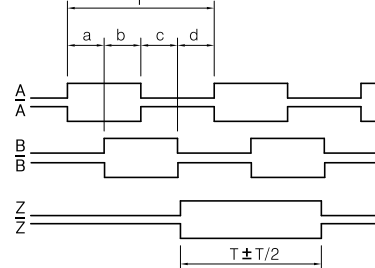
$$a, b, c, d = T/4 \pm T/10$$



Open Collector, Voltage Output Totem Pole



Line Driver



Connection Table

Cable's Color	Connection Table	
	Open Collector Voltage Output Totem Pole	Line Driver
H	Vcc	Vcc
K,M	GND	GND
A	A Sig	A Sig
N	-	\bar{A} Sig
C	B Sig	B Sig
R	-	\bar{B} Sig
B	Z Sig	Z Sig
P	-	\bar{Z} Sig
T	CASE Shield	CASE Shield