ABSOLUTE TYPE

ASC-HP Model

Heavy Duty 50mm Diameter Encoder

•Most Advanced IP65 Encoder.
•Large Bearings.

Model

TÜV CE EN 50081-2 EN 50082-2

ASC-HP □□-□ □□-□□-□□□-00E

- Style: H:Hollow Shaft / P:Dust-Proof &Water-Proof
- Resolution / Output Code:

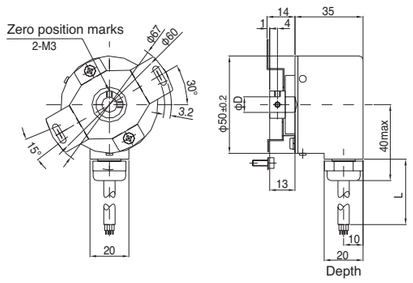
8	8bit(256div/r)
720	10bit(720div/r)
10	10bit(1024div/r)
12	12bit(※4096div/r)

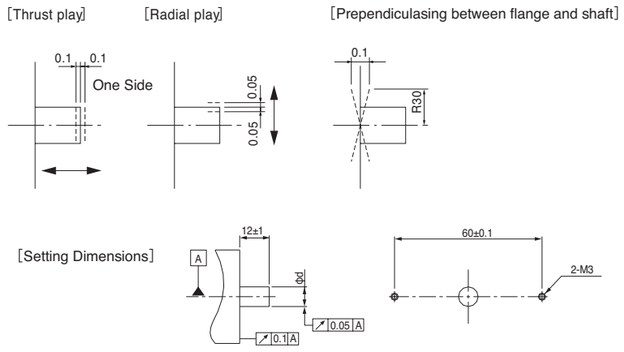
- G: Grey Code Negative Logic
- A: Binary Code Negative Logic

※Due to unavailable combination of specifications, Please make sure with sales Reps of the model name.

- Output Mode: No Indication : Voltage Output / C : Open Collector Output / T : Push-Pull Output
- Power Supply(Vcc): L : 5～12V±10% / H : 12～24V±10%
- Outer Diameter Shaft: 6 : φ6 / 635 : φ6.35 / 8 : φ8
- Cable Length: 200 : 2000mm (Standard)
- Complying with RoHS

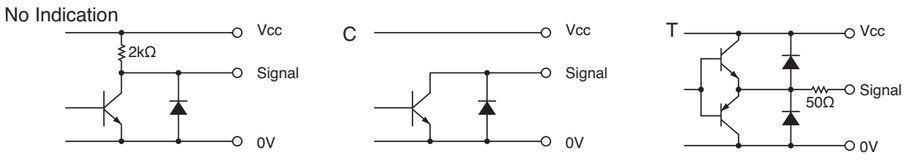
External Dimension





Shaft ring no.	φD	φ d
800	φ8H7 Depth 13	φ8 g 6
600	φ6H7 Depth 13	φ6 g 6
635	φ6.35H7 Depth 13	φ6.35 g 6

Output Circuit



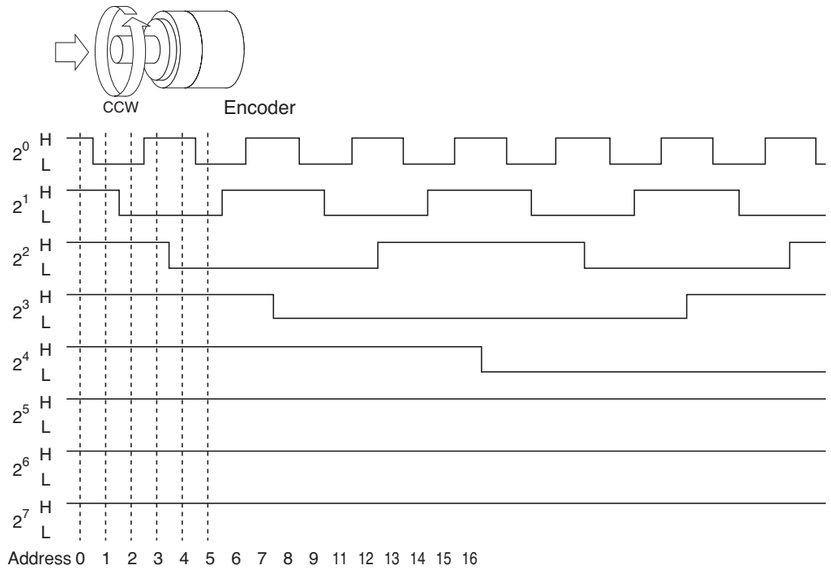
Electrical Spec

TYPE		No Indication	C	CP	T
Power Supply(Vcc)		L : DC 4.5～13.2 V H : DC 10.8～26.4 V			
Current Consumption		100 mA Max			
Output Voltage	"H"	Vcc-1V Min	—	Vcc-1V Min	Vcc-3V Min
	"L" ※1	0.5 VMax		—	3 V Max
Maximum Sink Current		20 mA			
Rise & Fall Time		2 μs Max			
Maximum Frequency Response ※2		10kHz（256）、20kHz（720、1024、4096）			

※1）at Maximum Sink Current　※2）When The Loading is 5V 1KΩ

Wave Form

CW Rotating Toward Clockwise Viewed from an Arrow =256・720・1024
CCW Rotating Toward Counter Clockwise Viewed from an Arrow =4096



Electrical Connections

（4096）

Color	Signal
Red	Power Supply(Vcc)
Black	0V
Brown	Signal 2^0
Brown-White	Signal 2^1
Orange	Signal 2^2
Orange-White	Signal 2^3
Yellow	Signal 2^4
Yellow-White	Signal 2^5
Green	Signal 2^6
Green-White	Signal 2^7
Blue	Signal 2^8
Blue-White	Signal 2^9
Gray	Signal 2^{10}
Gray-White	Signal 2^{11}
Shield	FG

（256・720・1024）

Color	Signal
Red	Power Supply(Vcc)
Black	0V
Brown	Signal 2^0
Orange	Signal 2^1
Yellow	Signal 2^2
Green	Signal 2^3
Blue	Signal 2^4
Purple	Signal 2^5
Gray	Signal 2^6
White	Signal 2^7
Pink	Signal 2^8 Only available for 10bit output
Sky Blue	Signal 2^9 Only available for 10bit output
Shield	F.G

Mechanical Spec

Starting Torque		9.8×10^{-3}N・m Max
Angular Acceleration		1×10^5 rad/s^2
Shaft Loading	Thrust	49N
	Radial	78.4N
Moment of Inertia		3×10^{-6}kg・m^2
Maximum Permissible Speed		Instantaneous : 5000min^{-1} Continuous : 3000min^{-1}
Net Weight(Without Cable)		250g Max

Environmental Spec

Operating Temperature	–10℃～+60℃
Storage Temperature	– 30℃～+85℃
Humidity	RH 85% Max No Condensation
Vibration	10～55 Hz / 1.5mm X,Y,Z Each 2h
Shock	980m/s^2,11ms X, Y, Z Each 3 times
Ingress Protection	IP65