SHAFT TYPE

OSS Model

Advanced Small Model

•Low Starting Torque.

Model

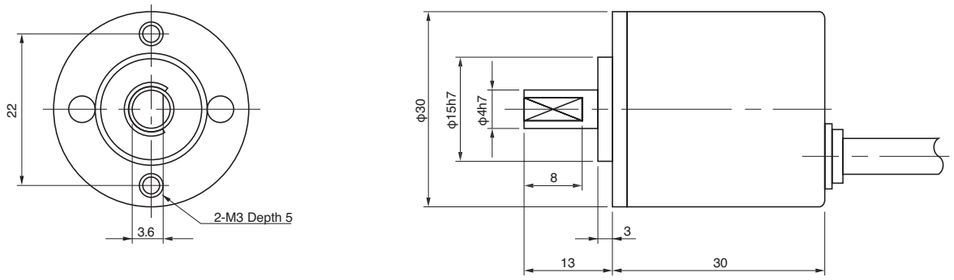
TÜV CE EN 50081-2 EN 50082-2

OSS-□□-□□□-□□-□□-□□□-00E

- Resolution
  - 006 60 P/R
  - ※01 100 P/R
  - 015 150 P/R
  - ※02 200 P/R
  - ※025 250 P/R
  - 03 300 P/R
  - ※036 360 P/R
  - ※04 400 P/R
  - ※05 500 P/R
  - ※06 600 P/R
- Signals
  - 1 : Only A Signal
  - 2 : AB90° Phase Difference
  - 2M : AB90° Phase Difference + Index Signal
- Output Mode
  - No Indication : Voltage Output
  - C : Open Collector Output
  - HC : Open Collector Output / High Voltage (The Power Supply(Vcc) is Only 24V)
- Power Supply(Vcc)
  - 5R : DC+5V Voltage Output
  - 5C : DC+5V Open Collector Output
  - 12 : DC+12V
  - 24 : DC+24V Open Collector Output
- Cable Length
  - 050 500mm (Standard)
  - 100 1000mm
  - 300 3000mm
- Complying with RoHS

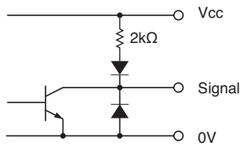
※2M is available for only types with ※mark

External Dimension

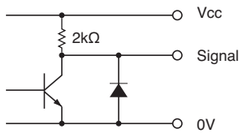


Output Circuit

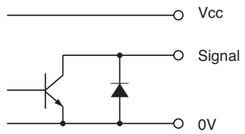
1
2



2M



1C
2C
2MC
1HC
2HC



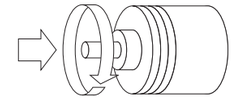
Electrical Spec

TYPE		1	2	2M	1C	2C	2MC	1HC	2HC
Power Supply(Vcc)		DC4.5～13.2 V		DC 4.5～5.5V	DC 4.5～13.2 V		DC 4.5～5.5V	DC21.6～26.4 V	
Current Consumption		40 mA Max		70 mA Max	40 mA Max		60 mA Max		
Output Voltage	"H"	Vcc-1V Min			———				
	"L" ※1	0.5 V Max							
Maximum Sink Current		20 mA							
Rise & Fall Time		1μS Max							
Maximum Frequency Response		60 kHz							
Withstanding Voltage of Output Tr.		———			50 V Max.				

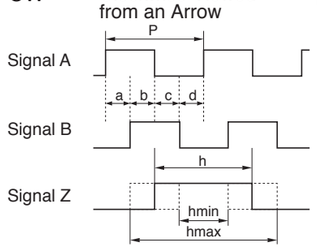
※1) at Maximum Sink Current

Wave Form

CW → Rotating Toward Clockwise Viewed from an Arrow



Rising point of A-Signal is always at one point while Z-Signal is at H-Level in CW.



$P = \frac{1}{\text{Resolution}}$ $\frac{P}{2} \leqq h \leqq \frac{3P}{2}$

$a, b, c, d = \frac{P}{4} \pm \frac{P}{8}$ Wave Ratio (Duty); 50 ± 25 (%)

Electrical Connections

Color	Signal
Red	Power Supply(Vcc)
Black	0V
Green or Blue	Signal A
White	Signal B
Yellow	Signal Z
Shield	NC

Mechanical Spec

Starting Torque		9.8×10^{-4}N・m Max
Angular Acceleration		1×10^{5} rad/s^2
Shaft Loading	Thrust	4.9N
	Radial	9.8N
Moment of Inertia		2×10^{-7}kg・m^2
Maximum Permissible Speed		6000min^{-1}
Bearing Life		1 x 10^8 / min^{-1} ・hrs
Net Weight		100g Max

Environmental Spec

Operating Temperature	–10˚C～+70˚C
Storage Temperature	– 30˚C～+80˚C
Humidity	RH 85% Max No Condensation
Vibration	10～55 Hz / 1.5mm X, Y, Z Each 2h
Shock	490m/s^2,11ms X, Y, Z Each 3 times