SHAFT TYPE

OVF Model

Water Resistant 38mm Diameter Encoder

- Most Advanced IP65 Encoder.
- Mating Shaft Diameter Up to 8mm.

Model

OVF-□□-2M□-□□□-□□□-□00

Resolution

002	20P/R	05	500P/R
003	30P/R	0512	512P/R
0032	32P/R	06	600P/R
004	40P/R	08	800P/R
005	50P/R	09	900P/R
006	60P/R	10	1000P/R
01	100P/R	1024	1024P/R
0125	125P/R	12	1200P/R
02	200P/R	15	1500P/R
0250	250P/R	18	1800P/R
0256	256P/R	20	2000P/R
03	300P/R	2048	2048P/R
036	360P/R	25	2500P/R
04	400P/R	36	3600P/R

Outer diameter shaft
- 800 : φ8
- (635 : φ6.35) ※
- (600 : φ6) ※
- (500 : φ5) ※

※ Option

Cable Length
- 050: 500mm (Standard)
- 100: 1000mm
- 300 : 3000mm

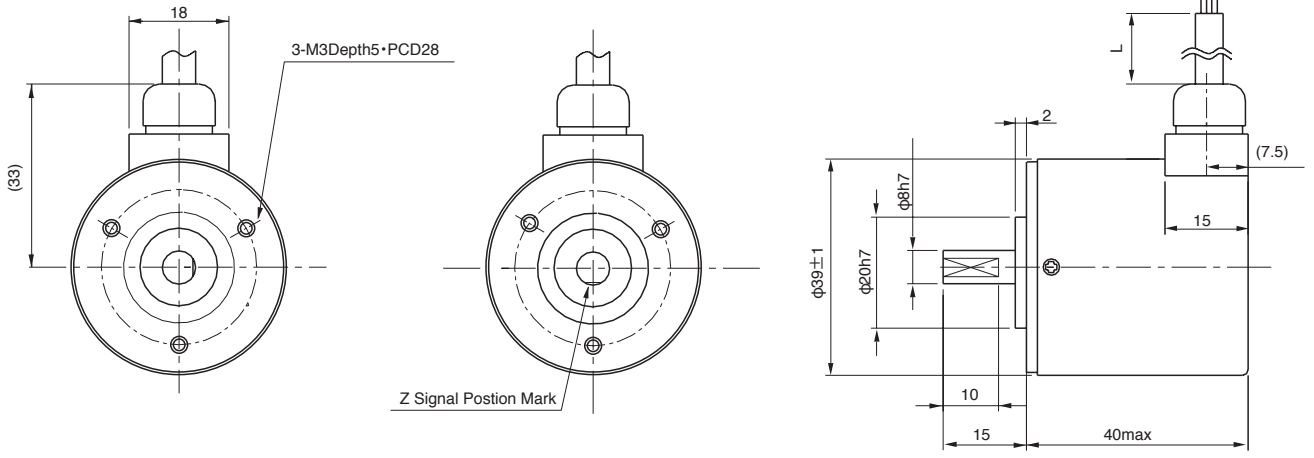
- No Indication : Other than D output
- No Indication : D output with LS
- C : D output with C-MOS

Output Mode
- No Indication : Voltage Output
- C : Open Collector Output
- HC : Open Collector Output / High Voltage
- HCP : PNP Mode Open Collector Output / High Voltage
- HT : Push-Pull Output / High Voltage
- D : Line Driver Output

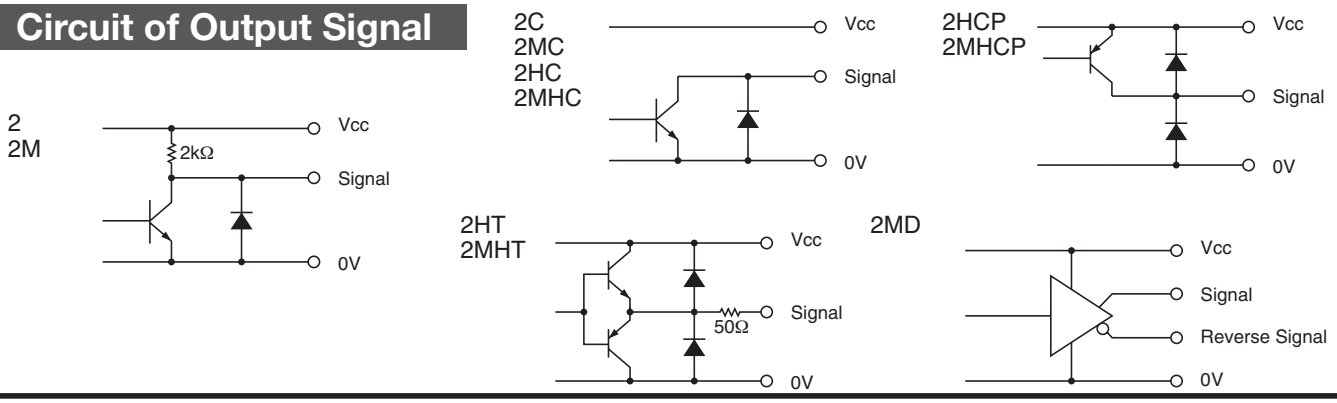
Low Power Consumption C-MOS Output Available

2 — Signals — 2M: AB90° Phase Difference + Zero Signal

External Dimension



Circuit of Output Signal



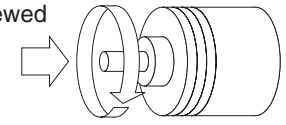
Electrical Spec.

※1) at Maximum Output Current ※2) Maximum Source Current

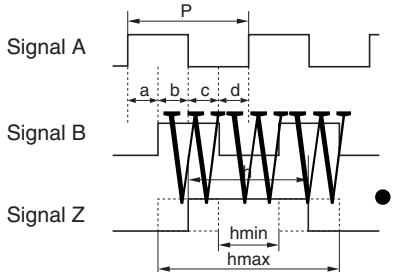
TYPE		2 • 2M	2C•2MC	2HC•2MHC	2HCP•2MHCP	2HT•2MHT	2MD
Supply Voltage		DC4.5 ~ 13.2 V		DC10.8 ~ 26.4 V			DC4.75 ~ 5.25V C-MOS DC4.5 ~ 5.5V
Requirement		80 mA Max	60 mA Max		100 mA Max	90 mA Max	150 mA Max C-MOS60 mA Max
Output Voltage	"H"	Within –1 Power Volt	———		Within –1 Power Volt ※2	Within –3 Power Volt	2.5 V or More
	"L" ※1	0.5 V Max			———	3 V Max	0.5 V Max
Maximum Output Current		20 mA MAX				40 mA MAX	20 mA MAX
Rise & Fall Time		1 μs Max					200 ns Max
Maximum Frequency Response		200 kHz			50 kHz	200 kHz	
Withstanding Voltage of Output Tr.		———	50 V MAX.		———		

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.



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

$$a, b, c, d = \frac{P}{4} \pm \frac{P}{8}$$

Wave Ratio (Duty) ; 50 ± 25 (%)

Electrical Connections

2
2M
2C
2MC
2HC
2MHC
2MCP
2MHCP
2HT
2MHT

Color of Lead Wire	Description
Red	Power Source
Black	0V Common
Green or Blue	Signal A
White	Signal B
Yellow	Signal Z
Shielding Braid	NC

2MD

Color of Lead Wire	Description	Color of Lead Wire	Description
Red	Power Source	White	Signal $\overline{B}$
Black	0V Common	Gray	Signal $\overline{B}$
Green	Signal A	Yellow	Signal Z
Blue	Signal $\overline{A}$	Orange	Signal $\overline{Z}$
Shielding Braid	NC		

Mechanical Spec.

Starting Torque		4.9×10^{-3}N • m Max
Angular Acceleration		1×10^{5} rad/s^2
Shaft Loading	Thrust axial	9.8N
	Radial	19.6N
Moment of Inertia		1.2×10^{-6}kg • m^2
Maximum RPM		5000r/min
Net Weight		140g Max

Environmental Spec.

Operating Temperature	–10℃ ~ +70℃
Storage Temperature	– 30℃ ~ +80℃
Humidity	RH 85% Max No Condensation
Vibration	10~55 Hz / 1.5mm 2 h
Shock	294m/s^2,11ms X, Y, Z Each 3 times
Degree of Protection	IP65