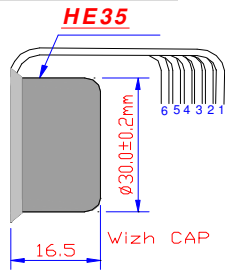




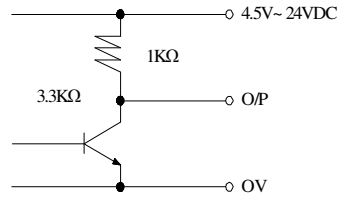
# Hennkwell Ind. Co., Ltd.

## Model: HE35 One/Two Channel Hall Effect Encoder

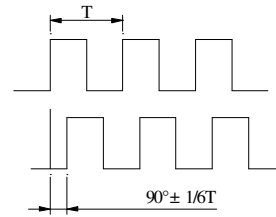
### 1 - Dimensional Figures :



### 2 - Output Circuit :



### 3 - Output Wave :



### 4 - Resolution : 4, 10, 12, 20 P/R

### 6 - Environmental :

|                       |                 |
|-----------------------|-----------------|
| Operating Temperature | -10 °C ~ +80 °C |
| Storage Temperature   | -20 °C ~ +90 °C |
| Humidity              | 80 % RH Max.    |

### 5 - Electrical Specifications :

|                     |                       |
|---------------------|-----------------------|
| Power Source        | 4.5 ~ 24 VDC          |
| Current Consumption | 30 mA or below        |
| Response Frequency  | 20 KHz                |
| Output Mode         | With pull up resistor |
| Output Signal       | A, A&B                |

### 7 - Two Channel Encoder Connections :

1. Black : -Motor
2. Red : +Motor
3. Brown : Hall Sensor Vcc
4. Blue : Hall Sensor GND
5. White : Hall Sensor A Vout
6. Green : Hall Sensor B Vout

### 8 - One Channel Encoder Connections :

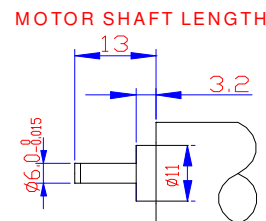
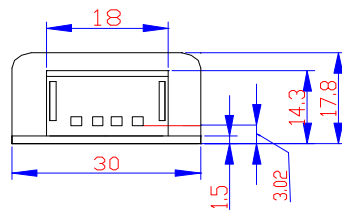
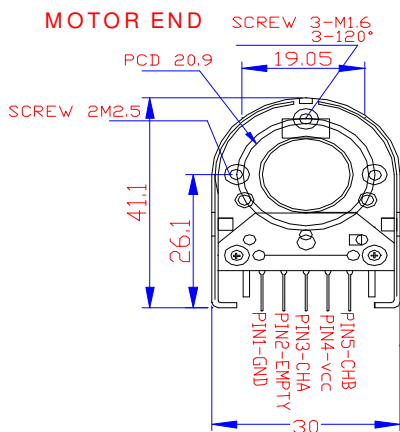
1. Black : -Motor
2. Red : + Motor
3. Brown : Hall Sensor Vcc
4. Blue : Hall Sensor GND
5. White : Hall Sensor A Vout
6. Green : Empty

### 9 - Feature:

- (1) Hall Effect Sensor
- (2) Speed Position Detection
- (3) Low cost

## Model: EM32 Optical Encoder Module

### 1 - Dimensional Figures :



### 2 - Resolution : 96, 100, 192, 200, 256, 360, 400, 500, 512 P/R

### 3 - Absolute Maximum Ratings :

|                            |               |
|----------------------------|---------------|
| Operating/Storage Temp.    | -10°C ~ +85°C |
| Supply Voltage             | -0.5~7V       |
| Output Voltage             | -0.5~Vcc      |
| Output Current Per Channel | -0.1~18mA     |
| Response Frequency         | 100 KHz       |

### 4 - Environmental :

|                       |               |
|-----------------------|---------------|
| Environmental         | -40°C ~ +60°C |
| Operating Temperature | -40°C ~ +60°C |
| Vibration             | 20g, 5 ~ 1KHz |

### 5 - Feature:

- (1) Two Channel Quadrature Output with Index Pulse
- (2) Low Cost
- (3) Easy to Mount
- (4) No Signal Adjustment required
- (5) TTL Compatible
- (6) Single 5V Supply