

HS31.75 Panel Optical Encoder



# Electrical

| Supply Voltage | 4.5 ~ 5.5 v |
|----------------|-------------|
| Supply Current | 5mA Max.    |
| Frequency      | 30 KHz Max. |
| Rise Time      | 500ns       |
| Fall Time      | 100ns       |

# Materials

| Shaft   | Stainless steel |
|---------|-----------------|
| Housing | Aluminum        |

### Environmental

| Operating Temperature | -20 ~ 85°C |
|-----------------------|------------|
| Storage Temperature   | -40 ~ 85°C |

# Phase Relationship

B leads A for clockwise shaft rotation, A leads B for counter clockwise shaft rotation viewed from the shaft/bushing side of the encoder.

#### Application

- Precise Industry Instrument
- Stereo Set
- Mixer
- Oscillograph
- Position Sensor / Audio / Temperature / Speed control / Panel Control
- Menu Selection
- Flow / Humidity Control System

#### Resolution

25, 32, 50, 64, 100, 128, 256 P/R

#### Mechanical

| Shaft Torque     | 0.05 in. oz. max.           |
|------------------|-----------------------------|
| Shaft Loading    | 1 lb. max.                  |
| Rotational Speed | 10,000 RPM max.             |
| Rotational life  | 300,000,000 revolutions     |
| Acceleration     | 10,000 rad/sec <sup>2</sup> |
| Vibration        | 20 g. 5 to 2KHz             |
| Weight           | 26g                         |



### Pin-out

| 1 – Black  | Gnd | 4 – Red   | Vcc |
|------------|-----|-----------|-----|
| 2 – Yellow | Z   | 5 – Green | В   |
| 3 – White  | А   |           |     |



# Description

HS31.75 is origin of the rotary encoder features non-contacting rotary into digital converter system. These are series of miniature panel mount optical encoders defined as a data-entry device which is very flexible for diversity applications with the functional potentiometers applied into the interface of front-panel manual.

These composed of the alloy aluminum covering of its body side surface accompanying the thread of UNEF-2A with the elaborate designation as well as the shaft of 6.35 mm, voltage output 5V and the storage temperature from -20~80°C.

Theses incorporate optical chip disk upon Honest Sensor patent priority technique providing the reflective sensor an LED emits light onto encoder disc surface causing the output to converter. These are mounted with the ball bearing utilizing a high-resistance temperature encoder disc, mental shaft with TTL compatible and two channels quadrature.

### Mechanical Drawing





