〈RoHS Compliance〉

QP-3HB series

■ FEATURES

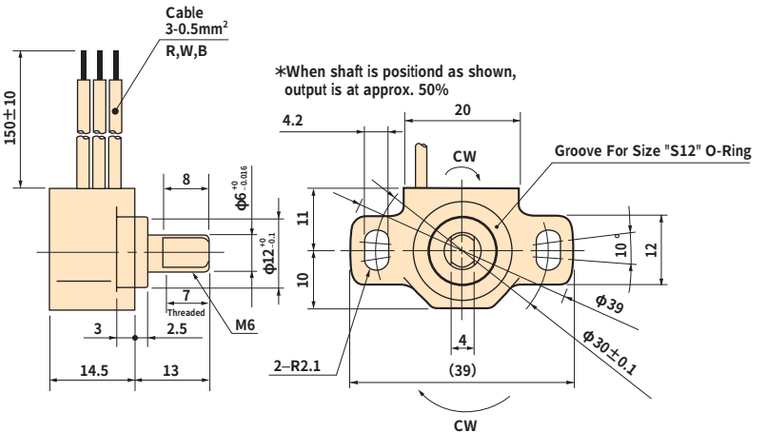
- Suitable for applications in the harsh environment
- Robust housing
- Two types of shaft (D-Cut, Both Side Flat) for easy coupling

■Model No. Designation

QP-3HB-100-01

- Return Spring：0=No, 1=Yes
- Rigid：0-Dust Proof, 1-Water Proof
- Output：1=single, 2=dual

■ DIMENSION (mm)



Model No. and Mechanical Specifications				
Single Output	QP-3HB-100-01	QP-3HB-101-02	QP-3HB-110-01	QP-3HB-111-02
Dual Output	QP-3HB-200-01	QP-3HB-201-02	QP-3HB-210-01	QP-3HB-211-02
Return Spring	×	○	×	○
Shaft Style	D-Cut	Double Side Flat Threaded	D-Cut	Double Side Flat Threaded

■Electrical Specifications

Electrical Angle	±45 °(Option：±10 °、±30 °、±60 °)
Output Range	10～90% Vin
Independent Linearity	±2% FS (FS=90 °)
Input Voltage	DC5±0.5V
Load Resistance	10kΩ MIN.
Supply Current	10mA MAX.
Insulation Resistance	DC50V 100MΩ MIN.
Temp. Characteristics −40℃～100℃ (Reference Temp. 25℃)	0 °：±1.5 ° ±45 °：±3 °

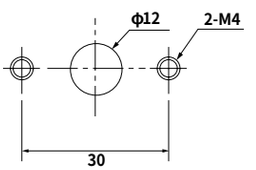
■Mechanical Specifications

Mechanical Angle	360 °Endless	120 °±5	360 °Endless	120 °±5
Stopper Strength	–	1N • m MIN.	–	1N • m MIN.
Torque	3mN • m MAX.	5～30mN • m	5mN • m MAX.	5～30mN • m
Weight	Approx. 50g			

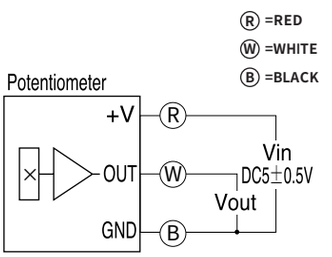
■Enviromental Specifications

Life Cycles	50M Cycle MIN.
Vibration	200m/s², 5～400Hz/10minutes、3axis
Shock	500m/s²、11ms、3axis 3times
EMS	100V/m、10k～1GHz
Operating Temp.	-40～125℃
Storage Temp.	-40～125℃
ESD(Case～Each Terminal)	±2.5kV
ESD(Each Terminal)	±4kV
IP Level	IP50 / IP65

■ MOUNTING



■ SCHEMATIC



Red, White and Black indicate harness colors

- As for Dual output, harness color of out2 is blue

OPTIONS

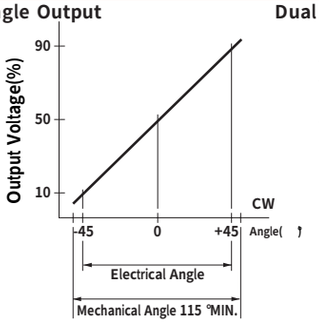
- Electrical angle: ±10 ° , ±30 ° , ±60 °
- Return spring (Up to ±45 °)
- Dual outputs (Cross outputs, Parallel outputs)

HANDLING INSTRUCTION

- This product may be influenced from external magnetic field of apparatus which generates a magnetic field.
- Use this sensor in the place where is protected from ESD.

■ OUTPUT CHARACTERISTICS

Single Output



Dual Output