

HALL EFFECT POTENTIOMETER

BTDP14 SERIES

14mm hall effect potentiometer

NEW



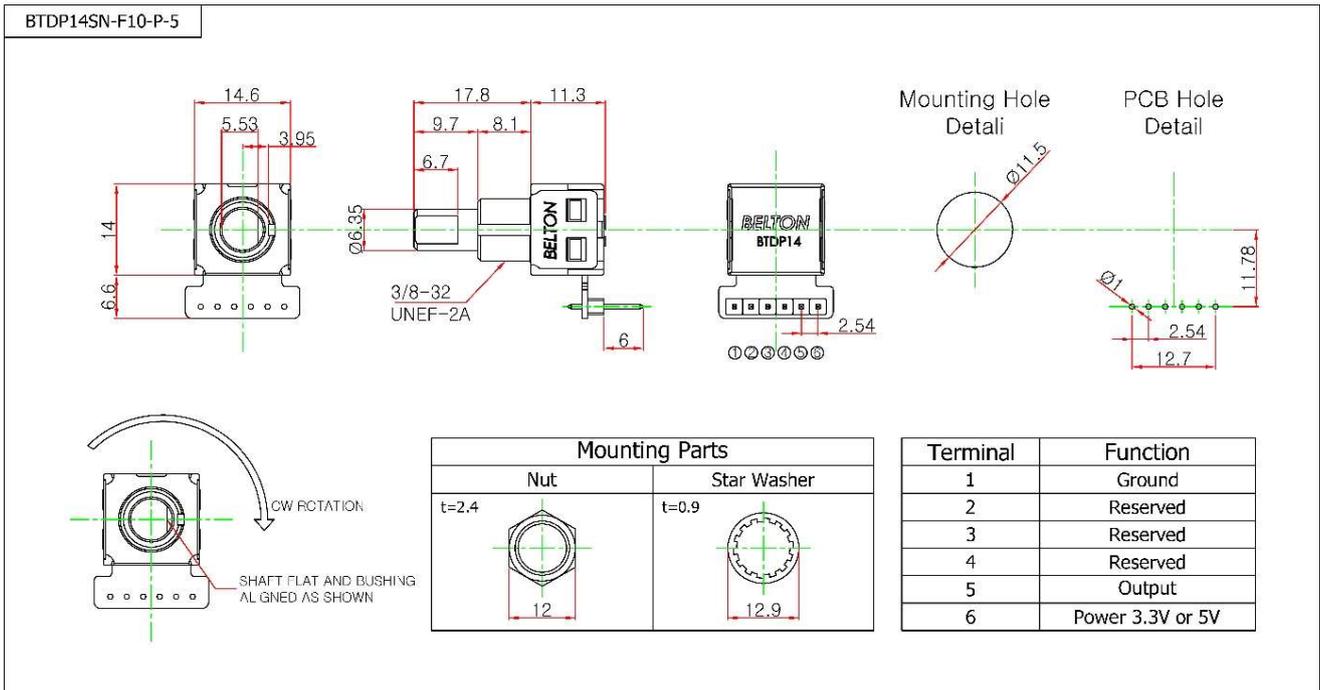
Features

- Plastic housing with Metal shaft
- 14 X 14 Economical Size
- Ratiometric analog output
- Debris resistant Hall effect sensor technology
- Over 1 million rotational cycles
- Custom output options

Applications

- All kinds of level control, tuning and position setting in the digitalized medical, measuring, radio, and communication equipment.
- Test & Measurement equipment
- Audio / Visual equipment
- Potentiometer substitute with long life
- Agriculture & Construction engine speed control
- Rotary position sensor

Standard Dimensions



ANALOG & DIGITAL REGENERATION UNIT
 ROTARY DIGITAL CODE SWITCH & PUSH BUTTON SWITCH
 OPTICAL & MECH. ENCODER SWITCH
 MILITARY / INDUSTRIAL SWITCH
 VACUUM TUBE SOCKET & TUBE SHIELD
 POWER ENTRY MODULE
 JACK & XLR SOCKET

HALL EFFECT SWITCH

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Electrical specifications

- Supplying voltage : DC 3.3V or DC 5V \pm 10%
- Supplying current : 6mA \pm 1mA Max.
- Resolution : 12 bits DAC output per Rotation
- Output : 0 – 3.3V or 5V (Analog Linear Taper)
- Continuous Power Dissipation : 50mW
- Electrical life : Over 1,000,000 cycles
- Output curve : Refer to the followings

Mechanical specifications

- Rotational torque : 10 gf·cm \pm 5 gf·cm
- Maximum rotational speed : 100 rpm
- Mechanical life : Over 1,000,000 cycles of operation
(1 cycle is a rotation through all positions and a full return.)

Durability characteristics

- Over 1,000,000 cycles of operation shall be performed under operating temp. range continuously at rate of 15 ~ 20 cycles/minute with load

Humidity characteristics

- During 48 hours, put specimen in the chamber which is controlled at temp. 40 \pm 2°C, moisture 90 ~ 95% condition, and then exposure to normal atmospheric condition for 1 hour

Soldering recommendation

- Hand solder only per IPC J-STD-001

Operating temperature range

- - 40°C ~ +85°C

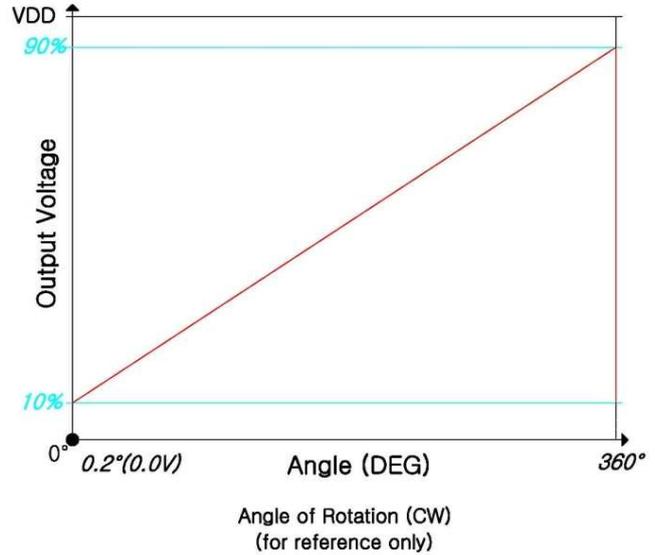
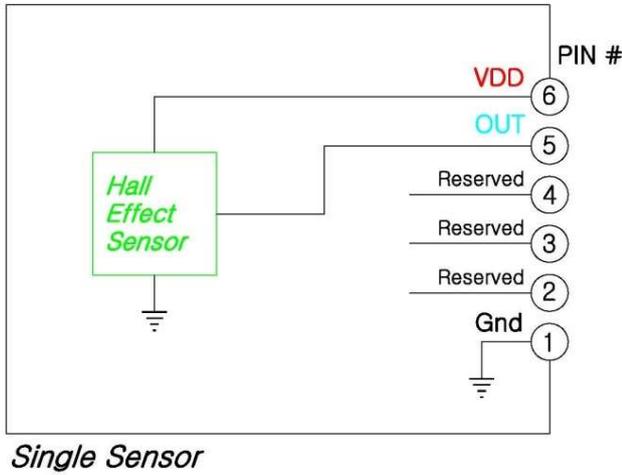
Storage temperature range

- - 55°C ~ +85°C

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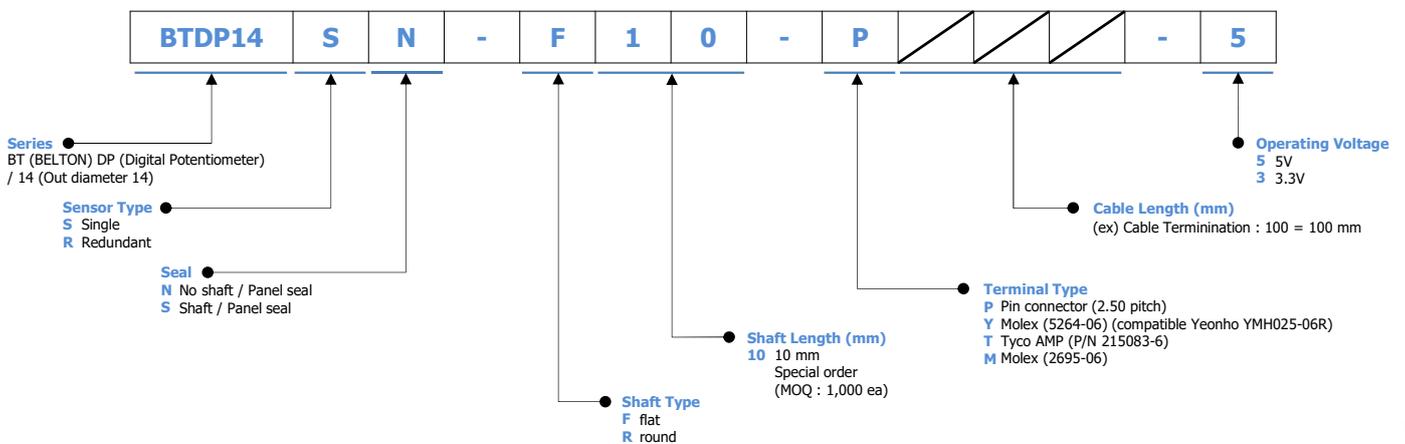
Electrical schematic



Mechanical construction

- A magnet holder with a magnet attached on its shaft is enclosed to place on the surface of one-chip IC. This IC is a programmable Hall-based rotary magnetic position sensor with a high-resolution 12-bit analog for contactless potentiometers.
- Also, this IC is a Hall-based rotary magnetic position sensor using planar sensors that convert the magnetic field component perpendicular to the surface of the chip into a voltage.

Suggested Ordering Code



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