

# OPTICAL ENCODER SWITCH

## BTRE14 SERIES

Economical Size 14mm Optical Encoder switch with Push-button switch function

NEW



### Features

BTRE14 Series :

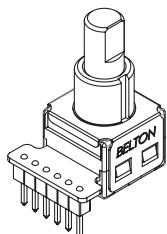
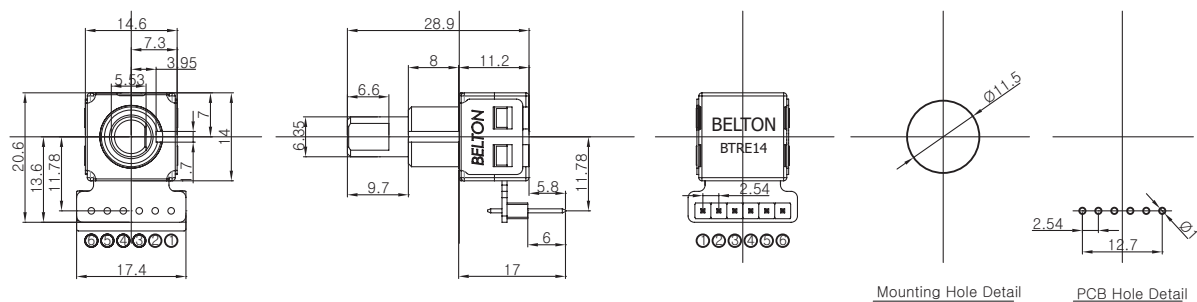
- Plastic housing with Metal shaft
- 14×14 Economical Size
- 1,000,000 life cycles with Pin mounting type or Cable type
- 4 or 8 pulses per rotation with fine square wave of output
- 16 or 32 detents of mechanical click with push-button switch function
- Size : 14,6×14 mm

### Applications

- All kinds of level control, tuning and position setting in the digitalized medical, measuring, radio, and communication equipments, etc.

### Standard Dimensions

BTRE14□□-□□F□□-P-N



Mounting Hole Detail      PCB Hole Detail

Terminal	Function
1	GROUND
2	For Switch
3	For Switch
4	Output 'B'
5	Output 'A'
6	Power 5V

# OPTICAL ENCODER SWITCH

## BTRE14 SERIES

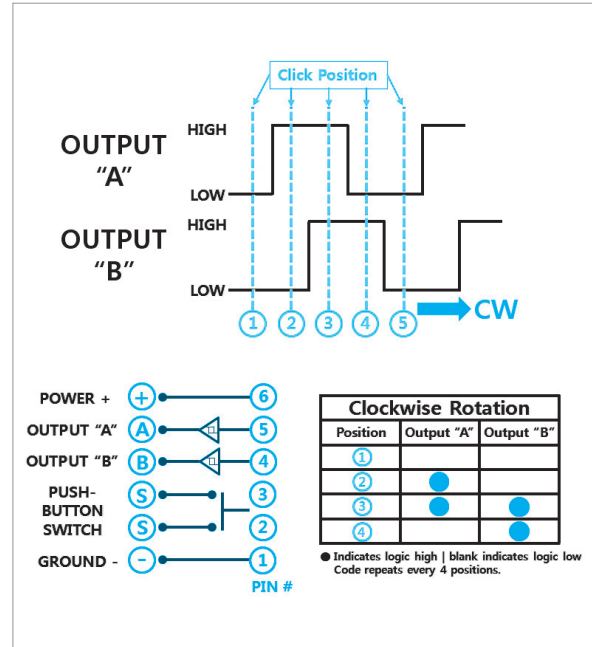
### Electrical specifications

- Supplying Voltage : DC 3.3V ±5% or DC 5V ±5%
- Supplying Current : 20mA max.
- Push-button switch : 10mA, 12V DC
- Phase difference : 90° ±45°
- Output Wave : Incremental with Rectangular wave
- Resolution
  - 4 pulses / 1 turn (16 detents)
  - 8 pulses / 1 turn (32 detents)
- Frequency Response : 100Hz
- Insulation Resistance : 100Mohms on 250V DC
- Withstanding Voltage : 1min. at 300V AC
- Electrical Life : Over 1,000,000 cycles

### Mechanical specifications

- Mechanical Click No.
  - 16 (22.5°) positions per rotation
  - 32 (11.25°) positions per rotation
- Rotational Torque
  - Style A : 100 ± 30 gf · cm
  - Style D : 200 ± 30 gf · cm
- Operating force of Push-button switch : 10 ± 3 gf
- Click & Push-button Mechanical Life : Over 1,000,000 cycles
- Soldering Temp. : 5sec. On the 260°C
- Temp. Range of Operating : 0°C ~ +50°C

### Output wave, Circuitry, Truth table



### Suggested Ordering Code

BTRE14		A	P	.	3	2	F	1	0	.	T	1	0	0	.	N
Detent Option	Push-button Option	Angle of Throw		Shaft Type		Shaft Length		Terminal Type			Cable Length (mm)		Stopper Option			
A	normal torque	P	with	16	16 positions (22.5°)	F	flat	10	10mm (9.45±0.55)	P	pin connector			s	with	
D	high torque	N	without	32	32 positions (11.25°)	R	round		special order (MOQ : 1,000ea)	Y	Yeonho(YMH025-06R) with cable 100mm(compatible Molex 5264-06)		(ex) Cable Termination : 100 = 100mm	n	with out	
N	without detent									T	AMP(P/N 215083-6) with cable 100mm					

