

with Push Switch

# RE29 Series



#### **Outline**

RE29 series pack compact rotary encoder with dual-functional resin shaft into the space-saving resin enclosure. RE29 is recommended for wide range of machines including measurement components, medical and telecommunication devices.

#### **Features**

- Extremely thin (6.6mm) and lightweight (7g)
- Multi-functional with 2 way acting push switch function and rotating function shaft
- Eco friendly:
  - 1) Low cost and lesser parts by VA design
  - 2) RoHS compliant
- Designed to be soldered to printed circuit board

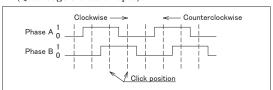
## **Specifications**

Rotary Encoder	
Rotary Encoder  Rotary Encoder  Supply Voltage  Output Signals  Output High (Supply Voltage $-2.5V$ ) $\leq$ Voltage Low $\leq 0.5V$ Response Frequency  Rotational	
Rotary Encoder  Output Signals  Output High (Supply Voltage $-2.5V$ ) $\leq$ Voltage Low $\leq 0.5V$ Response Frequency  Rotational	
Rotary Encoder  Output Signals chip  Output High (Supply Voltage $-2.5V$ ) $\leq$ Voltage Low $\leq 0.5V$ Response Frequency  Rotational	
Output   High   (Supply voltage = 2.3v) ≤   Voltage   Low   ≤ 0.5V     Response   Frequency   100Hz     Rotational	OS
Response Frequency 100Hz	
Frequency 100Hz Rotational	
Rotational	
Torque $4 \pm 2 \text{ mN} \cdot \text{m}$	
Push Rating of contact $\leq$ DC12V $0.1 \sim 10$ mA (Resistant load)	ice)
switch Travel of switch $0.2 \pm 0.1 \text{ mm}$	
Operational Force 5 ± 2 N	
Weight 7g	

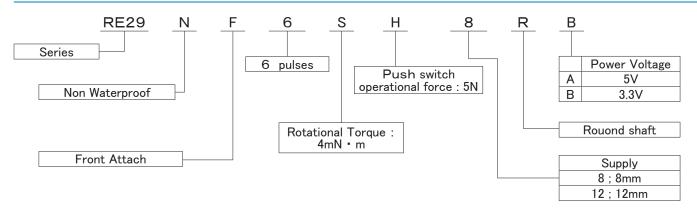
2. Reliability and	d Environm	Specifications	
Items			Rated Value
D 1.124 C	Thrust	Push	100N
Durability of operating area	direction	Pull	50N
operating area	Radial		1N ⋅ m
Rotational durability			1 million strokes (No load)
Screw Torque			Not more than 1N ⋅ m
Heat resistance of solder	Solder bit MAX 35		Within 3 seconds for each terminal
Operating temperature			$^{-0}$ °C $\sim$ $^{+55}$ °C $\sim$ $^{131}$ F
Storage temperature			$^{-40}$ °C $_{-40}$ F $^{+85}$ °C $_{185}$ F

### **Output Waveform**

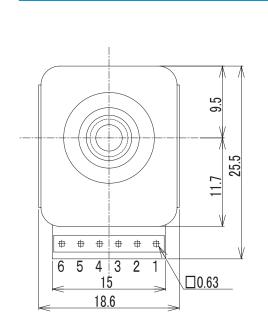
- 1) Turning the shaft clockwise will generate the signal A when the signal B outputs a low voltage (0);
- 2) Rotating the shaft counter-clockwise will generate the signal A when the signal B outputs a high voltage(1);
- 3) Either signal A or B switches from 0→1 or 1→0 for every single click (Quad edge evaluation spec).

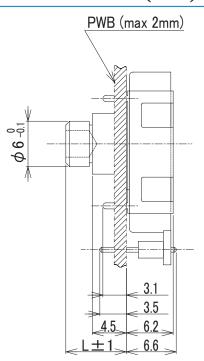


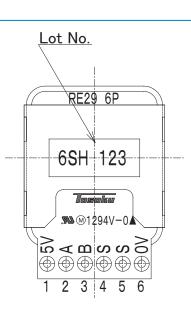
# **Part Number Designation**



## Dimensions (mm)

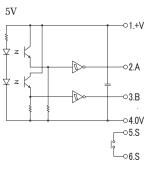


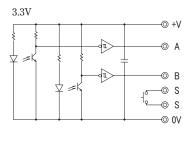




PWB mounting hole dimensions (mm)

# Circuitry





1	3. 3V/5V	Supply
2	Α	Signal A
3	В	Signal B
4	S	Push Switch
5	S	Push Switch
6	0V	Ground

8	
-	ф <u> </u>
φ8.4	4 × × × × × × × × × × × × × × × × × × ×
18.3 	->  >-

### **Precautions**

Wiring	Use buffering amplifier when extending lead wire over 30cm.
Soldering	Do not put a load on the terminal area during and immediately after soldering.
Operation	Do not use flow/reflow soldering machines.
Power	Use under specified power voltage and connect properly.

#### Warranty

• 1 year from the date of shipment