

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

1. Electrical and Mechanical specifications				
Items			Rated Value	
Rotary Encoder	Number of Pulses		6 PPR	
	Number of Clicks		24 Clicks	
	Supply Voltage		$\mathrm{DC3.3V}\pm5\%\leq20\mathrm{mA}\mathrm{6mA}\mathrm{TYP}$	
			$DC5V \pm 5\% \leq 10mA 4mA TYP$	
	Output Signals		Channel A/B: Square Wave CMOS chip	
	Output Voltage	High	(Supply Voltage $-2.5V$) \leq	
		Low	$\leq 0.5 V$	
	Response Frequency		100Hz	
	Rotational Torque		$4 \pm 2 \text{ mN} \cdot \text{m}$	
Push switch	Rating of contact		\leq DC12V 0.1 ~ 10mA $\binom{\text{Resistance}}{\text{load}}$	
	Travel of switch		0.2 ± 0.1 mm	
	Operational Force		5 ± 2 N	
Weight			7g	

2. Reliability and Environmental Specifications				
Ite	ms		Rated Value	
D 1114 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 $1N \cdot m$	
Heat resistance of solder	Heat resistanceSolder bit temp.:of solderMAX 350°C		Within 3 seconds for each terminal	
Operating temp	erature		$rac{-0^\circ \mathbb{C}}{32 \mathrm{F}} \sim rac{+55^\circ \mathbb{C}}{131 \mathrm{F}}$	
Storage temper	ature		${}^{-40^\circ { m C}}_{-40{ m F}} \sim {}^{+85^\circ { m C}}_{185{ m F}}$	

Output Waveform

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



Part Number Designation











PWB mounting hole dimensions (mm)



Circuitry





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

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