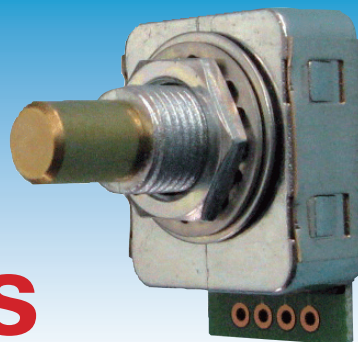


Optical Rotary Encoder with Push Switch



RE23 Series



Outline

RE23 series are optical rotary encoders with dual functions of pushing and rotating on its shaft. Its size, mounting procedures and inner-structures have been designed for a wide-array of uses; measurement devices, medical equipments, industrial machineries, telecommunication devices and machine tools.

Features

- Multi-functional with 2 way acting – pushing and rotating – shaft
- Eco friendly:
 - 1) Low cost and lesser parts by VA design
 - 2) RoHS compliant
- Thin-line (18.8x25.5x8.9mm) and lightweight (18g)
- Various types of models with options: lead wire with or without connector, clamp for horizontal/vertical mounting
- Long-lasting without “contact chatter” due to its optical switching function

Specifications

1. Electrical and Mechanical specifications			
Items		Rated Value	
Number of pulses		16PPR, 25PPR	
Supply voltage		3.3V±10%	5V±10%
		20mA	10mA
Output signals		Channel A/B: Square Wave CMOS chip	
Output voltage	High	(Supply Voltage - 0.5V) ≤	
	Low	≤ 0.5V	
Response frequency		200Hz	
Rotational torque	Light: S	4±1mN · m	
	Standard: C	6±2mN · m	
	Medium: M	10.5±3.5mN · m	
	High: H	16±5mN · m	
Push switch	Rating of contact		≤ DC12V 0.1 ~ 10mA
	Travel of switch		0.2±0.1mm
	Operational Force	S	3.2±1N
		M	4.0±1N
H		5.0±1N	
Weight		18g	

Note : In case Rotational Torque M or H, Operational Torque should be either M or H.

2. Reliability and Environmental specifications			
Items		Rated Value	
Durability of operating area	Thrust direction	Push	100N
		Pull	50N
	Radial		1N · m
Rotational durability	Light: S		1 million strokes (No load)
	Standard: C		
	Medium: M		
	High: H		100 thousand strokes (No load)
Screw Torque		Not more than 1N · m	
Heat resistance of solder	Solder bit temp.: MAX 350°C		Within 3 seconds for each terminal
Operating temperature		0°C ~ +55°C 32F ~ 131F	
Storage temperature		- 40°C ~ +85°C - 40F ~ 185F	

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) Detent positions are where both signal A and B are low (0).

