

Encoder 10mm Size Hollow Shaft Type

EC10E Series



A series of compact and long-life encoders with unique hollow shaft design.

Detector

Push

Slide

Rotary

Encoders

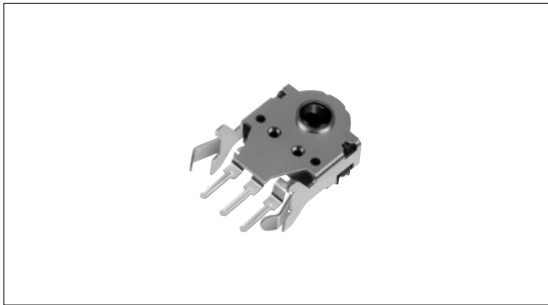
Power

Dual-in-line
Package Type

Multi Control
Devices

TACT Switch™

Custom-
Products



Features

- Small body as thin as 4.4 mm with 3.6mm height from the shaft center to the case top.
- A long-life operation of more than 100,000 cycles.
- An excellent detent mechanism with a good operational feel.
- The unique hollow shaft shape contributes in simplifying set design.(with taper inside the hollow shaft.)

Applications

- For various types of control in PC input devices (i.e. mouses), AV equipment and communication devices

Incremental
Type

Absolute
Type

Typical Specifications

Items	Specifications
Rating	1mA 5V DC
Operating life	100,000cycles

Product Line

Mount height (mm)	Detent torque (mN·m)	Number of detent	Number of pulse	Operating direction	Minimum packing unit (pcs.)	Product No.
7	5±3	24	12	Horizontal	1,600	EC10E1220505
9						EC10E1220501
11						EC10E1220503

Dimensions

Unit:mm

Style	PC board mounting hole dimensions

Refer to P.221 for product specifications.

Product Specifications

Items		Series	EC05E	EC10E	
Operating temperature range			-30°C to +85°C		
Maximum operating current (resistive load)			0.55mA	1mA	
Electrical performance	Rating		0.55mA 5V DC	1mA 5V DC	
	Output signal		Output of A and B signals, proportionate to phase difference		
	Output phase		_____		
	Output type		Incremental		
	Insulation resistance		50MΩ min. 50V DC		
	Voltage proof		50V AC		
Mechanical performance	Rotational torque		_____		
	Detent torque		1.6±1.3mN·m	5±3mN·m	
	Push-pull strength		_____		
	Resistance to soldering heat	Manual soldering		350°C max. 3s max.	
		Dip soldering		_____	260±5°C, 3±1s
Reflow soldering			Please see P.219	_____	
Durability	Operating life		100,000cycles		
Environmental performance	Cold		-40±3°C for 240h		
	Dry heat		85±3°C for 240h		
	Damp heat		40±2°C, 90 to 95%RH for 240h		

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