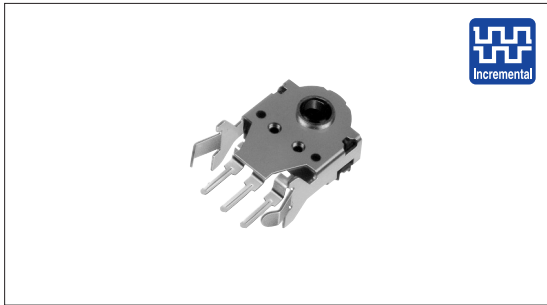


Encoder 10mm Size Hollow Shaft Type

EC10E Series



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



Typical Specifications

Items	Specifications
Rating	1mA 5V DC
Operating life	100,000cycles
Operating temperature range	-30°C to +85°C

Product Line

Mount height (mm)	Detent torque (mN·m)	Number of detent	Number of pulse	Operating direction	Minimum order unit (pcs.)	Product No.
7	5±3	24	12	Horizontal	3,200	EC10E1220505
9						EC10E1220501
11						EC10E1220503
7	6±3	12				EC10E1260502

Packing Specifications

Bulk

Number of packages (pcs.)		Export package measurements (mm)
1 case /Japan	1 case /export packing	
1,600	3,200	270×360×155

Dimensions

Unit:mm

Style	PC board mounting hole dimensions
<p>Detail (E) Shaft hole position will be at random.</p> <p>Shaft insert</p> <p>A : Output signal A B : Output signal B</p>	

Note

Please place purchase orders per minimum order unit N (integer).

Detector

Push

Slide

Rotary

Encoders

Power

Dual-in-line
Package Type

TACT Switch™

Custom-
Products

Metal
Shaft

Insulated
Shaft




Hollow
Shaft

Ring
Type



Automotive
Use

List of Varieties

Type	Hollow Shaft		Absolute type
	5mm size	10mm size	Hollow shaft
Series	EC05E	EC10E	SRGA
Photo			
Output	Incremental		Absolute type
Outline specifications	Shaft types	Hollow shaft	
	Operating direction	Vertical/Horizontal	Horizontal
	Number of pulse/ Number of detent	12/12	12/24
	Push switch (Travel mm)	Without	
	Changeover angle	15°, 30°, 45°	
Dimensions (mm)	W	5.7	9.8
	D	2.7	4.4
	H	7.3	12.6
Soldering	Manual soldering	350°C max. 3s max.	
	Dip soldering	—	260±5°C, 3±1s
	Reflow soldering	Please see P.225	—
Operating temperature range	-30°C to +85°C		-10°C to +70°C
Automotive use	—	○	●
Electrical performance	Maximum operating current (Resistive load)	0.55mA	1mA
	Output signal	Output of A and B signals, proportionate to phase difference	
	Initial contact resistance	—	
	Insulation resistance	50MΩ min. 50V DC	
	Voltage proof	50V AC for 1minute	
Mechanical performance	Rotational torque	—	
	Defent torque	1.6±1.3mN·m	5±3mN·m
	Terminal strength	—	
	Push-pull strength	—	
	Vibration	—	
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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Notes

1. ※ The operating temperature range for automotive applications can be raised upon request. Please contact us for details.
2. ○marks in "Available for automotive use" indicate that some of the series products can work at the operating temperature range from -40°C to +85°C, ●marks in "Available for automotive use" indicate that all of the series products can work at the operating temperature range from -40°C to +85°C.

Detector

Push

Slide

Rotary

Encoders

Power

Dual-in-line
Package Type

TACT Switch™

Custom-
ProductsMetal
ShaftInsulated
ShaftHollow
ShaftRing
Type