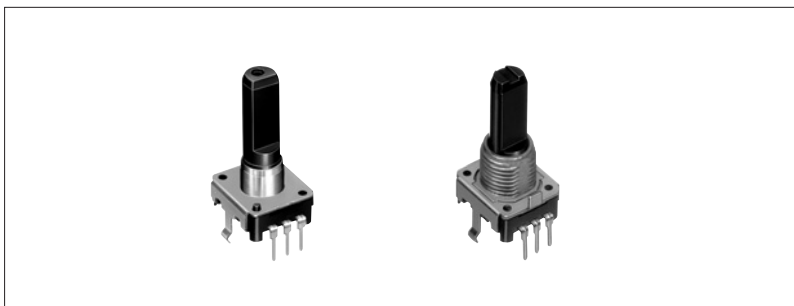


# 12mm Size Insulated Shaft Type Encoder Variety

EC12E Series

Insulated shaft type with a push-on switch and other features has a wide variety of applications.

- Power
- Push
- Slide
- Rotary
- Encoders**
- Jog Shuttle
- Telephone-hook
- Detector
- Vibration/Tilt Sensors
- Dual-in-line Package Type
- Multi Control Devices
- TACT



Lead Free

## Features

- A 12mm sized unit achieved high resolution, 12-pulse / 12-detent and 24-pulse / 24-detent.
- Used a new structure for the shaft and bushing, and achieved a high precision, responsive system.
- Also available with a 0.5mm push switch.
- Incremental type.

## Applications

- Controls for image and sound devices, including DVD players, mini component stereos, CD players, portable audio players and monitors.
- Controls for audio mixers and electronic instruments.

## Typical Specifications

Items	Specifications	
Rating (max.) (Resistive load)	5mA 5V DC	
Operating life	Without detent	15,000 cycles
	Other	30,000 cycles

## Products Line

With High Collar Type

Length of operating section (mm)	Detent torque	Number of detent	Resolution	Operating direction	Push-on switch	Travel of push-on switch (mm)	Minimum packing unit (pcs.)	Products No.	Drawing No.
15	Standard 3 to 20 mN·m	12	12	Vertical	Without	—	1,200	EC12E1220407	2
20								EC12E1220406	1
25								EC12E1220405	
8.5 (Hollow shaft)	Lightest (jog) 3±2 mN·m	12	12					EC12E1220301	3
20								EC12E1240405	1
25								EC12E1240406	
8.5 (Hollow shaft)	Standard 3 to 20 mN·m	24	24					EC12E1240301	3
15								EC12E24204A2	2
20								EC12E24204A8	1
25	EC12E24204A9								
8.5 (Hollow shaft)	Lightest (jog) 3±2 mN·m	24	24					EC12E2420301	3
20								EC12E24404A8	1
25				EC12E24404A6					
8.5 (Hollow shaft)	Standard 25±15 mN·m	Without	24	EC12E2440301	3				
20				EC12E2430404	1				
25				EC12E2430401					

**Products Line**

**With Bushing Type**

Length of operating section (mm)	Detent torque	Number of detent	Resolution	Operating direction	Push-on switch	Travel of push-on switch (mm)	Minimum packing unit (pcs.)	Products No.	Drawing No.
20	Standard 3 to 20 mN·m	12	12	Vertical	Without	—	950	EC12E1220801	4
25		24						EC12E2420802	
20	Standard 25±15 mN·m	Without	24					EC12E2420801	
25								EC12E2430804	
								EC12E2430803	

**With Switch Type**


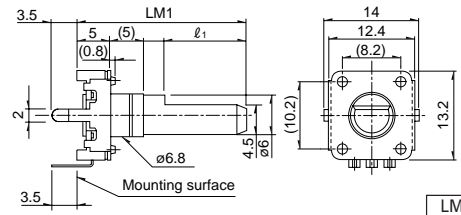
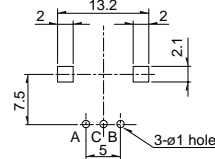

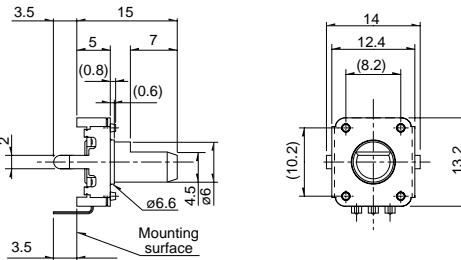
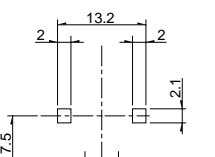
Length of operating section (mm)	Detent torque	Number of detent	Resolution	Operating direction	Push-on switch	Travel of push-on switch (mm)	Minimum packing unit (pcs.)	Products No.	Drawing No.
20	Standard 3 to 20 mN·m	12	12	Vertical	With	0.5	1,200	EC12E12244A3	5
25								EC12E12244A4	
20	Lightest (jog) 3±2 mN·m	24	24					EC12E1244401	
25								EC12E1244403	
20	Standard 3 to 20 mN·m	24	24	EC12E2424407					
25				EC12E2424404					
20	Lightest (jog) 3±2 mN·m	24	24	EC12E2444400					
25				EC12E24444A3					

**Note**

No nuts or washers attached. If necessary, contact us.

**Dimensions**

Unit : mm

No.	Model	Style	PC board mounting hole dimensions (Viewed from mounting face)						
1		 <table border="1" data-bbox="973 1388 1093 1467"> <tr> <td>LM1</td> <td>l<sub>1</sub></td> </tr> <tr> <td>20</td> <td>7</td> </tr> <tr> <td>25</td> <td>12</td> </tr> </table>	LM1	l <sub>1</sub>	20	7	25	12	
LM1	l <sub>1</sub>								
20	7								
25	12								
2	<b>Short shaft</b> 	 <table border="1" data-bbox="973 1388 1093 1467"> <tr> <td>LM1</td> <td>l<sub>1</sub></td> </tr> <tr> <td>20</td> <td>7</td> </tr> <tr> <td>25</td> <td>12</td> </tr> </table>	LM1	l <sub>1</sub>	20	7	25	12	
LM1	l <sub>1</sub>								
20	7								
25	12								

Power

Push

Slide

Rotary

Encoders

Jog Shuttle

Telephone-hook

Detector

Vibration/Tilt Sensors

Dual-in-line Package Type

Multi Control Devices


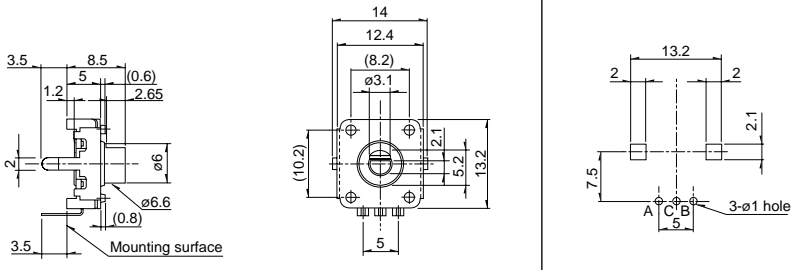
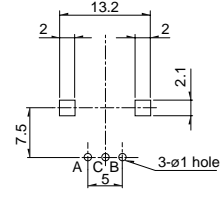

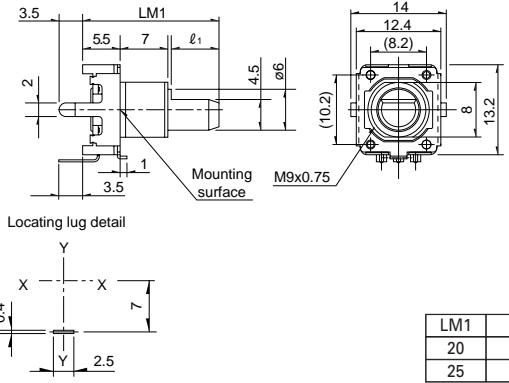
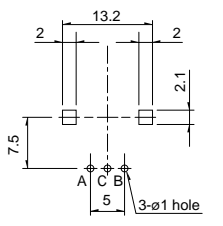

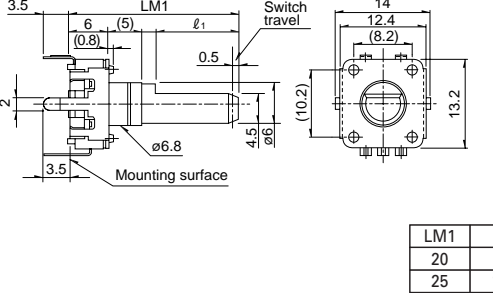
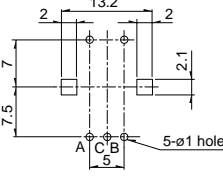
TACT

Incremental Type

Absolute Type

Dimensions

Unit : mm

No.	Model	Style	PC board mounting hole dimensions (Viewed from mounting face)
3	Hollow shaft 		
4	With bushing 		
5	With push-on switch 		

- Power
- Push
- Slide
- Rotary
- Encoders**
- Jog Shuttle
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- Multi Control Devices
- TACT
- Incremental Type
- Absolute Type

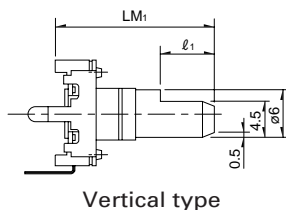
# Variety

## Shaft Dimensions

Flat Type

Unit : mm

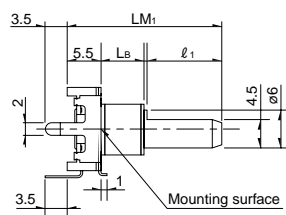
With high collar type



Detail dimensions

LM <sub>1</sub>	l <sub>1</sub>
17.5	5
20	7
22.5	7
25	12
30	12

With bushing type



Detail dimensions

LM <sub>1</sub>	L <sub>B</sub>	l <sub>1</sub>
20	7	7
25	7	12
30	12	12
35	12	12

Except 12 detent.

Power

Push

Slide

Rotary

Encoders

Jog Shuttle

Telephone-hook

Detector

Vibration/Tilt Sensors

Dual-in-line Package Type

Multi Control Devices

TACT

Incremental Type

Absolute Type