

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

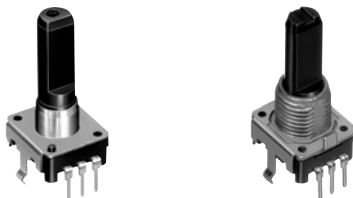
Dual-in-line
Package Type

Multi Control
Devices

TACT

Incremental
Type

Absolute
Type



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)								EC12E1220301	3
20	Lightest (jog) 3±2 mN•m	12	EC12E1240405					1	
25			EC12E1240406						
8.5 (Hollow shaft)			EC12E1240301					3	
15	Standard 3 to 20 mN•m	24	24					EC12E24204A2	2
20								EC12E24204A8	1
25								EC12E24204A9	
8.5 (Hollow shaft)								EC12E2420301	3
20	Lightest (jog) 3±2 mN•m	24	EC12E24404A8					1	
25			EC12E24404A6						
8.5 (Hollow shaft)			EC12E2440301					3	
20	Standard 25±15 mN•m	Without	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	24					EC12E2420802	
20	Without	EC12E2420801							
20		EC12E2430804							
25		EC12E2430803							

With Switch Type

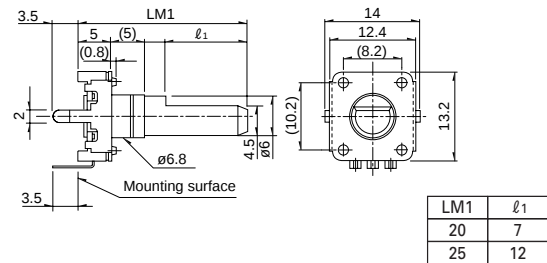
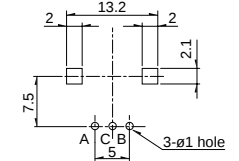
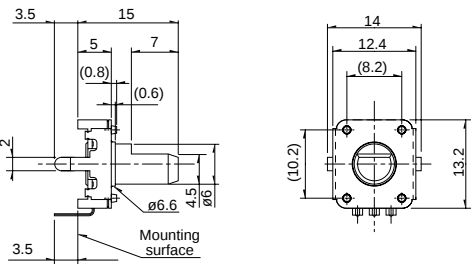
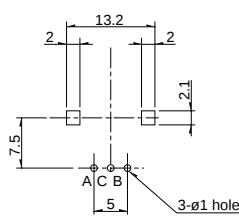
Length of operating section (mm)	Detent torque	Number of detent	Resolution	Operating direction	Push-on switch	Travel of push-on switch (mm)	Minimum packing unit (pcs.)	Products No.	Drawing No.		
20	Standard 3 to 20 mN·m	12	12	Vertical	With	0.5	1,200	EC12E12244A3	5		
25								EC12E12244A4			
20	Lightest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

Note

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

Dimensions

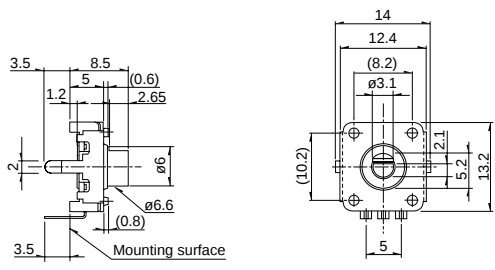
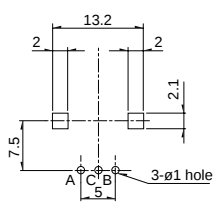
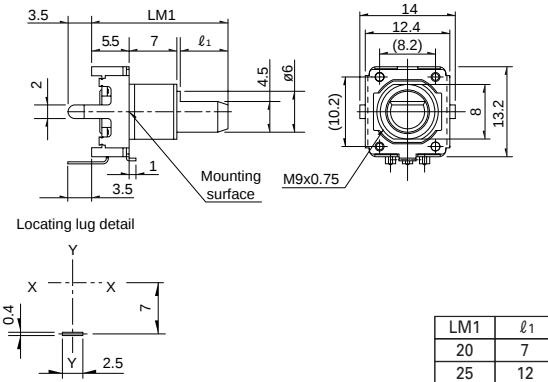
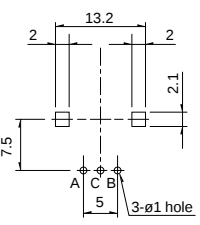
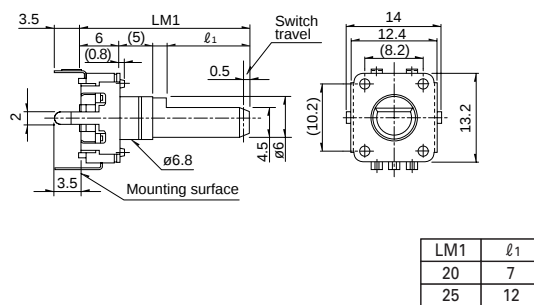
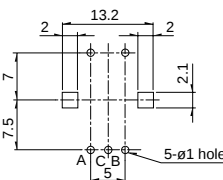
Unit : mm

No.	Model	Style	PC board mounting hole dimensions (Viewed from mounting face)						
1		 <table border="1" data-bbox="975 1388 1098 1458"><thead><tr><th>LM1</th><th>l1</th></tr></thead><tbody><tr><td>20</td><td>7</td></tr><tr><td>25</td><td>12</td></tr></tbody></table>	LM1	l1	20	7	25	12	
LM1	l1								
20	7								
25	12								
2	Short shaft 								

For other products, check varieties on P.189
For other detailed specifications, see P.190

Dimensions

Unit : mm

No.	Model	Style	PC board mounting hole dimensions (Viewed from mounting face)						
3	Hollow shaft 								
4	With bushing 	 <table><tr><td>LM1</td><td>l₁</td></tr><tr><td>20</td><td>7</td></tr><tr><td>25</td><td>12</td></tr></table>	LM1	l ₁	20	7	25	12	
LM1	l ₁								
20	7								
25	12								
5	With push-on switch 	 <table><tr><td>LM1</td><td>l₁</td></tr><tr><td>20</td><td>7</td></tr><tr><td>25</td><td>12</td></tr></table>	LM1	l ₁	20	7	25	12	
LM1	l ₁								
20	7								
25	12								

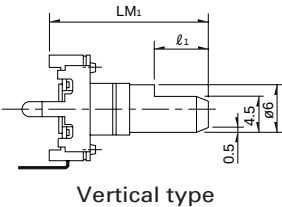
Variety

Shaft Dimensions

Flat Type

Unit : mm

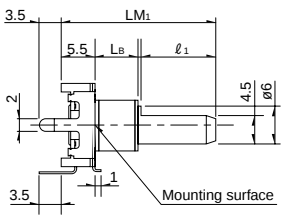
With high collar type



Detail dimensions

LM ₁	l ₁
17.5	5
20	7
22.5	7
25	12
30	12

With bushing type



Detail dimensions

LM ₁	L _B	l ₁
20	7	7
25	7	12
30	12	12
35	12	12

Except 12 detent.

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Push

Slide

Rotary

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TACT

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