

12,14mm Size Snap-In Insulated Shaft Potentiometers

FEATURES

- Newly designed 12mm and 14mm size snap-in potentiometers to meet the electronics equipment trend for further miniaturization and lower profiles.
- High performance miniature potentiometer created by incorporating Noble's ICB (Integrated Control Block) film integration technology.
- Film makes smooth rotational feeling possible.
- Unit with or without bushing are available together with tap and detent.

APPLICATIONS

Various Potentiometers for volume, tone, balance and microphone volume control etc. of Radio, Radio-Cassette-Recorder (with or without CD), Amplifier, Mixer etc.

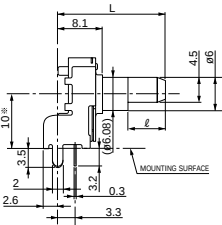
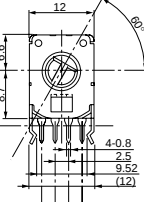
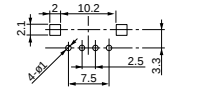
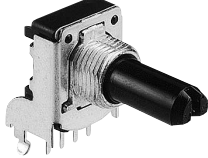
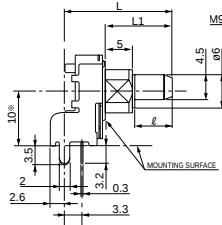
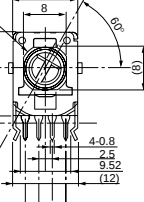
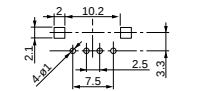
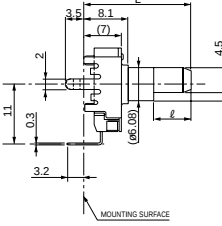
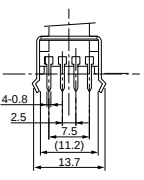
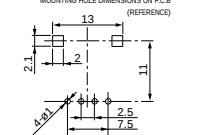
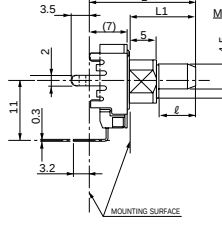
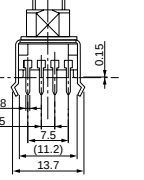
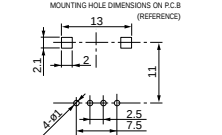
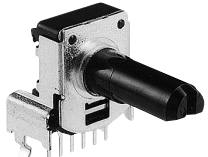
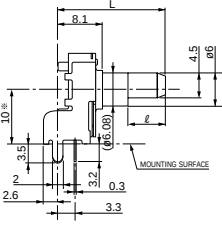
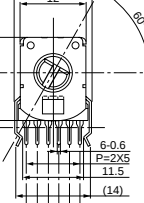
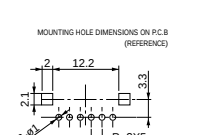
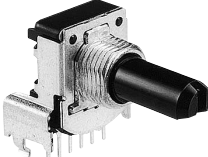
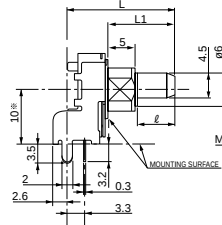
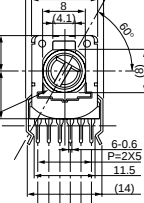
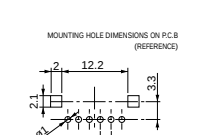
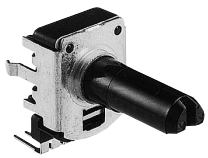
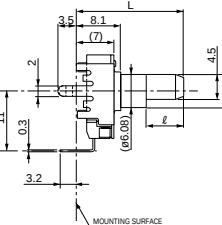
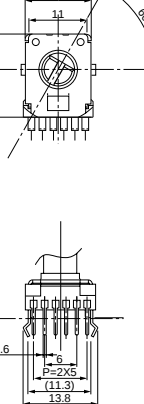
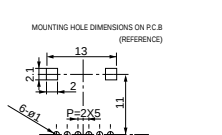
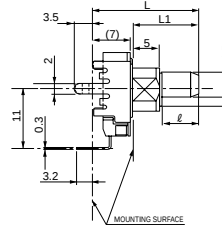
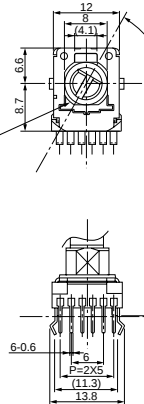
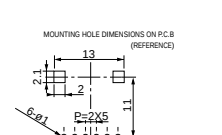
Product Variation

Size	Bushing or Sleeve	Mounting style	Mounting height	Circuit Diagram	Order Number	Relation No.	
12mm	Without Bushing	Horizontal	10.0mm	Single-Element (Central tap is possible)	XV012111NPJ	①	
			12.5mm		XV012111NPD		
		Vertical	—		XV012111NPV	②	
					XV012113NPV	② Sleeve type	
		Horizontal	10.0mm	Dual-Elements (High-Cut Tone)	XV012111GPJ	③	
			12.5mm		XV012111GPD		
		Vertical	—		XV012111GPV	④	
					XV012113GPV	④ Sleeve type	
		With Bushing	Horizontal	10.0mm	Single-Element (Central tap is possible)	XVB12111NPJ	⑤
				12.5mm		XVB12111NPD	
			Vertical	—		XVB12111NPV	⑥
						XVB12111GPJ	⑦
	Horizontal		10.0mm	Dual-Elements (High-Cut Tone)	XVB12111GPD		
			12.5mm		XVB12111GPV	⑧	
	Vertical		—		XVB12111GPV	⑧ Sleeve type	
					XVB12111GPV		
	Without Bushing	Horizontal	10.0mm	Dual-Elements (Without Tap)For Vol	XV012211GPJ	⑨	
			12.5mm		XV012211GPD		
		Vertical	—		XV012211GPV	⑩	
					XV012213GPV	⑩ Sleeve type	
		Horizontal	10.0mm	Dual-Elements (Without Tap)For Tone	XV012311GPJ	⑪	
			12.5mm		XV012311GPD		
		Vertical	—		XV012311GPV	⑫	
					XV012311GPV		
		With Bushing	Horizontal	10.0mm	Dual-Elements (Without Tap)For Vol	XVB12211GPJ	⑬
				12.5mm		XVB12211GPD	
	Vertical		—	XVB12211GPV		⑭	
				XV012313GPV		⑭ Sleeve type	
	Horizontal		10.0mm	Dual-Elements (Without Tap)For Tone	XVB12311GPJ	⑮	
			12.5mm		XVB12311GPD		
	Vertical		—		XVB12311GPV	⑯	
					XVB12311GPV	⑯ Sleeve type	
14mm	Without Bushing	Horizontal	10.0mm	Dual-Elements (With Tap) For Tone	XV014111GPJ	⑰	
			12.5mm		XV014111GPD		
		Vertical	—		XV014111GPV	⑱	
	With Bushing	Horizontal	10.0mm		Dual-Elements (With Tap) For Vol	XVB14111GPJ	⑲
			12.5mm			XVB14111GPD	
		Vertical	—			XVB14111GPV	⑳
	Without Bushing	Horizontal	10.0mm	Dual-Elements (With Tap) For Vol		XV014112GPJ	⑰
			12.5mm			XV014112GPD	
		Vertical	—			XV014112GPV	⑱
	With Bushing	Horizontal	10.0mm		Dual-Elements (With Tap) For Vol	XVB14112GPJ	⑲
			12.5mm			XVB14112GPD	
		Vertical	—			XVB14112GPV	㉑

*Center detent is available for all types.

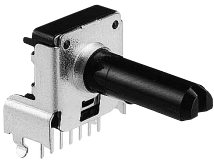
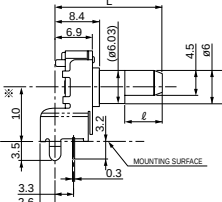
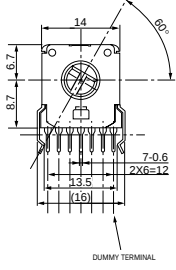
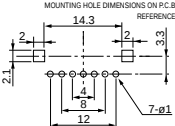
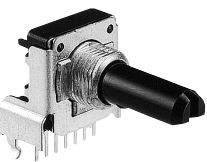
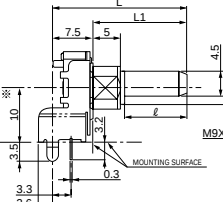
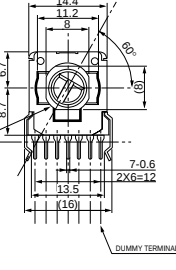
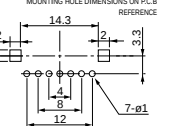
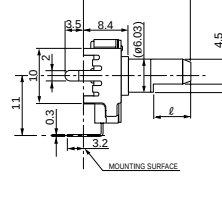
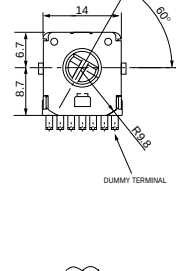
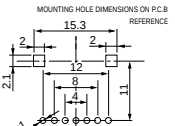
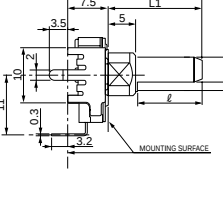
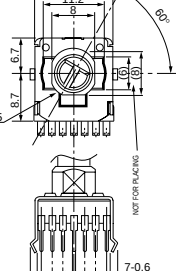
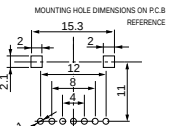


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We request the exchange of official approval drawings before placing order.

Model	Dimensions	Unit:mm	Model	Dimensions	Unit:mm
XV012111NPJ XV012111GPJ	   ※Mounting Height=10 (PJ) =12.5 (PD) MOUNTING HOLE DIMENSIONS ON P.C.B (REFERENCE) 		XVB12111NPJ XVB12111GPJ	   ※Mounting Height=10 (PJ) =12.5 (PD) MOUNTING HOLE DIMENSIONS ON P.C.B (REFERENCE) 	
XV012111NPV XV012111GPV	   MOUNTING HOLE DIMENSIONS ON P.C.B (REFERENCE) 		XVB12111NPV XVB12111GPV	   MOUNTING HOLE DIMENSIONS ON P.C.B (REFERENCE) 	
XV012211GPJ XV012311GPJ	   ※Mounting Height=10 (PJ) =12.5 (PD) MOUNTING HOLE DIMENSIONS ON P.C.B (REFERENCE) 		XVB12211GPJ XVB12311GPJ	   ※Mounting Height=10 (PJ) =12.5 (PD) MOUNTING HOLE DIMENSIONS ON P.C.B (REFERENCE) 	
XV012211GPV XV012311GPV	   MOUNTING HOLE DIMENSIONS ON P.C.B (REFERENCE) 		XVB12211GPV XVB12311GPV	   MOUNTING HOLE DIMENSIONS ON P.C.B (REFERENCE) 	

NOBLE

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Model	Dimensions	Unit:mm	Model	Dimensions	Unit:mm
XV014111GPJ	   ※Mounting Height=10 (PJ) =12.5 (PD) 		XVB14111GPJ	   ※Mounting Height=10 (PJ) =12.5 (PD) 	
XV014112GPJ			XVB14112GPJ		
XV014111GPV	   		XVB14111GPV	   	
XV014112GPV			XVB14112GPV		

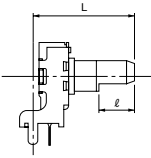
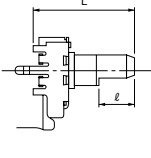
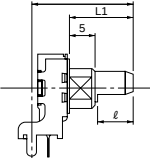
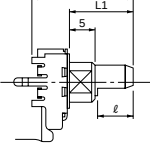
Example of indicating Order Number

	XV012311GPJ	15F	15A10K	CC	
Product Variation					In case of ordering "Center detent"
					Indicating Resistance & Taper/10K-OHM 15A : Select form Code Table-2
					Indicating shaft length & type/15mmF : Select form Code Table-1

Code Table-1-1

Without Bush			With Bush		
Order Number	Shaft length L1	ℓ	Order Number	Shaft length L	ℓ
15F	15	4.5	20F	20	12.5
20F	20	7	22.5F	22.5	15
25F	25	12	25F	25	17.5
30F	30	12	27.5F	27.5	20
			30F	30	22.5

Code Table-1-2 (Shaft Design)

Without Bushing	With Bushing
 	 

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■ Code Table-2-1 (①~⑬)

Order Number	Resistance&Taper	Order Number	Resistance&Taper
1B10K	10K-OHM 1B	15C10K	10K-OHM 15C
1B20K	20K-OHM 1B	15C20K	20K-OHM 15C
1B50K	50K-OHM 1B	15C50K	50K-OHM 15C
1B100K	100K-OHM 1B	15C100K	100K-OHM 15C
15A10K	10K-OHM 15A	3B10K	10K-OHM 3B
15A20K	20K-OHM 15A	3B20K	20K-OHM 3B
15A50K	50K-OHM 15A	3B50K	50K-OHM 3B
15A100K	100K-OHM 15A	3B100K	100K-OHM 3B

■ Code Table-2-2 (Circuit)

Dual-Elements (For Vol)	Dual-Elements (For Tone)
(1B,3B,15A Taper)	(15C Taper)

■ 2-1 (⑰~⑳) With Tap

Order Number	Resistance&Taper
3BM10K	10K-OHM 3BM
3BM20K	20K-OHM 3BM
3BM50K	50K-OHM 3BM
3BM100K	100K-OHM 3BM
15AM10K	10K-OHM 15AM
15AM20K	20K-OHM 15AM
15AM50K	50K-OHM 15AM
15AM100K	100K-OHM 15AM
15CM10K	10K-OHM 15CM
15CM20K	20K-OHM 15CM
15CM50K	50K-OHM 15CM
15CM100K	100K-OHM 15CM

*15AM,15CM Taper is option type.

Single-Element	Dual-Elements (For High-Cut Tone)	Dual-Elements (With Tap)
(Option:15C Taper)	(Option:15C Taper)	(3BM,15AM Taper)

■ SPECIFICATION

	① ② ⑤ ⑥	③ ④ ⑦ ⑧	⑨~⑬	⑰~⑳
Operating Temperature Range	-10 to 70°C			
Rated Power	0.05W	Operating Current 1mA AC only	0.05W	
Maximum Operating Voltage	AC50V,DC20V	DC20V		
Nominal Total Resistance	10kΩ,20kΩ,50kΩ,100kΩ			
Total Resistance Tolerance	Within ±20% of the nominal total resistance			
Resistance Taper	1B,15A,15C,3B			3BM, (15AM,15CM)
Insulation Resistance	100MΩ at DC500V	100MΩ at DC250V		
Dielectric Strength	AC500V for 1 minute	AC300V for 1 minute		
Tracking Error	—	For volume control : Within ± 3dB at a range of 0~40dB. Except for 1B Taper. For tone control : Within ± 2dB at center.		
Total Rotational Angle	300±5°C			
Rotational Torque	3 to 20 mN.m at (5 to 35°C)			
Rotational Stop Strength of the Shaft	Without Bushing=0.5N.m With Bushing=0.6N.m			
Push/Pull Strength of the Shaft	80N max.			
Endurance (Sliding)	15,000 cycles	10,000 cycles	15,000 cycles	



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