

Fully Sealed Potentiometer Cermet or Conductive Plastic



DESIGN SUPPORT TOOLS AVAILABLE



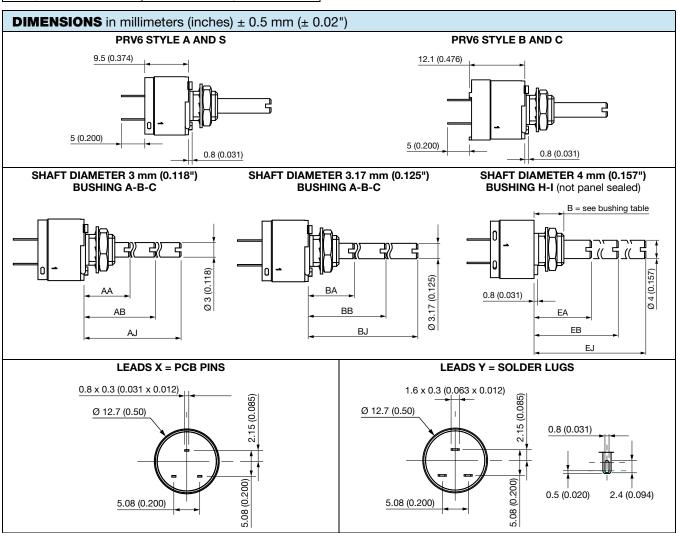
QUICK REFERENCE DATA						
Multiple module	No					
Switch module	n/a					
Detent module	n/a					
Special electrical laws	A: linear, L: logarithmic, F: reverse logarithmic					
Sealing level	IP 67					
Lifespan	50K cycles					

FEATURES

PRV6S high power rating 1.5 W at 70 °C (cermet)

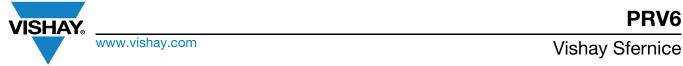


- PRV6A 0.75 W at 70 °C (conductive plastic)
- RoHS COMPLIANT
- Tests according to CECC 41000 or IEC 60393-1
- Low cost
- Fully sealed and panel sealed
- Compatible RV6 (MIL R 94)
- Mechanical endurance 50 000 cycles
- · Material categorization: for definitions of compliance please see www.vishay.com/doc?99912





	PECIFICATIONS	DDVCC DDVCD	DDVCA DDVCO				
Desistive element		PRV6S, PRV6B	PRV6A, PRV6C				
Resistive element		cermet	conductive plastic				
Electrical travel	lineau tanau (A)	270° ± 15° 20 Ω to 10 MΩ 1 kΩ to 1 MΩ					
Resistance range	linear taper (A) non-linear taper (F-L)	470 Ω to 1 MΩ	470 Ω to 500 kΩ (± 20 %)				
Taper		Mech	trical travel 270° 15° anical travel 300°				
Tolerance	standard	± 20 %	± 20 %				
	on request	± 10 %, ± 5 %	± 10 % (1 kΩ to 100 kΩ)				
Circuit diagram	E	a (1) b cw (3)					
Power rating at 70 °C	linear	1.5 W at 70 °C	0.75 W at 70 °C				
	other tapers	0.75 W	0.4 W				
Power rating chart		PRV6S, PRV6B lin PRV6S, PRV6B lin PRV6A, PRV6C lin PRV6A, PRV6C no	n-linear taper ear taper				
			60 70 80 100 125 PERATURE IN DEGREES CELSIUS				
emperature coeffici		± 150 ppm/°C	± 500 ppm/°C				
imiting element volt			350 V				
Contact resistance v		2	2 % or 3 Ω				
End resistance (typic		1Ω					
		1750 V _{RMS} 10 ⁶ ΜΩ					



MECHANICAL SPECIFICATIONS					
Mechanical travel	300° ± 5°				
Operating torque (Ncm (oz.in.))	0.5 to 2 (0.7 to 3)				
End stop torque (max. Ncm (lb.in.))	35 (3)				
Tightening torque (max. Ncm (lb.in.))	150 (13)				

ENVIRONMENTAL SPECIFICATIONS						
	PRV6S, PRV6B	PRV6A, PRV6C				
Temperature range	-55 °C to +125 °C	-40 °C to +125 °C				
Climatic category	55/125/56	40/125/56				
Sealing	Fully sealed container; IP67 and panel sealed					

PERFORMANCES						
TESTS	CONDITIONS		TYPICAL VALUES AND DRIFTS			
12313	CONDITIONS	∆R _T /R _T (%)	$\Delta R_{1-2}/R_{1-2}$ (%)	OTHER		
Electrical endurance	1000 h at rated power 90'/30' - temperature 70 °C	± 1 %		CRV < 3 % Rn		
Climatic sequence	Phase A dry heat 100 °C Phase B damp heat Phase C cold -55 °C Phase D damp heat 5 cycles	± 0.5 %	± 1 %			
Damp heat, steady state	56 days	± 0.5 %	± 1 %	Insulation resistance: $> 10^4 \text{ M}\Omega$		
Change of temperature	5 cycles, -55 °C to +125 °C	± 0.5 %				
Mechanical endurance	50 000 cycles	± 3 %		CRV < 2 % Rn		
Shock	50 g at 11 ms 3 successive shocks in 3 directions	± 0.1 %	± 0.2 %			
Vibration	10 Hz to 55 Hz 0.75 mm or 10 <i>g</i> during 6 h	± 0.1 %	± 0.2 %			

Note

• Nothing stated herein shall be construed as a guarantee of quality or durability

STANDARD RESISTANCE ELEMENT DATA								
STANDARD	PRV6S A	AND PRV6B WITH L	INEAR TAPER	PRV6S AN	PRV6S AND PRV6B WITH NON-LINEAR TAPER			
RESISTANCE VALUES	MAX. POWER AT 70 °C	MAX. WORKING VOLTAGE	MAX. WIPER CURRENT	MAX. POWER AT 70 °C	MAX. WORKING VOLTAGE	MAX. WIPER CURRENT		
Ω	W	V	mA	W	٧	mA		
20	1.5	5.48	274					
50	1.5	8.66	173					
100	1.5	12.2	122					
200	1.5	17.3	87					
500	1.5	27.4	55	0.75	19.4	39		
1K	1.5	38.7	38.7	0.75	27.3	27.4		
2K	1.5	54.8	27.4	0.75	38.2	19.3		
5K	1.5	86.6	17.3	0.75	61.2	12.2		
10K	1.5	122.5	12.2	0.75	87	8.7		
20K	1.5	173	8.26	0.75	122	6.1		
50K	1.5	274	5.65	0.75	194	3.9		
100K	1.22	350	3.5	0.75	273	2.74		
220K	0.61	350	1.75	0.61	350	1.75		
500K	0.25	350	0.70	0.25	350	0.7		
1M	0.12	350	0.35	0.12	350	0.35		
2M	0.06	350	0.17					
5M	0.025	350	0.070					
10M	0.012	350	0.035					





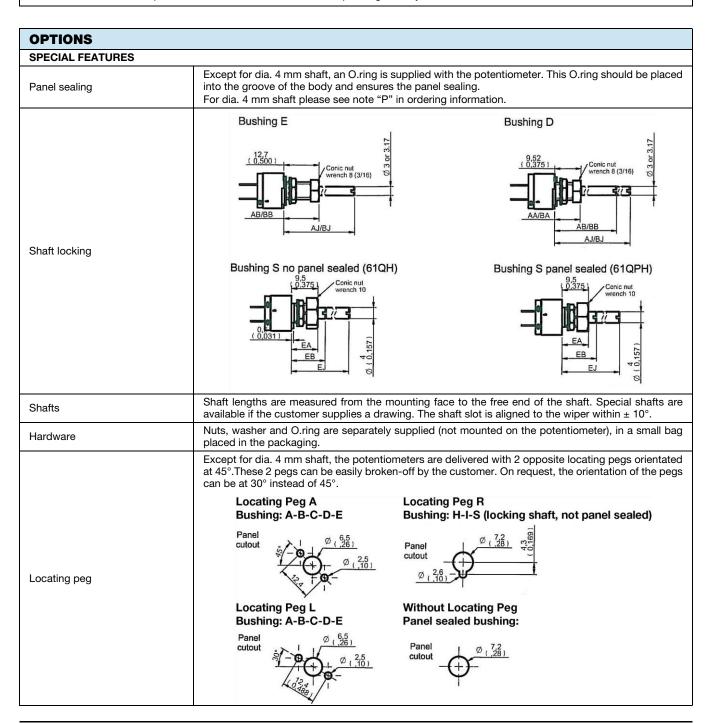


MARKING

- · Vishay trademark
- Part number
- Manufacturing date code
- Terminal: 1

PACKAGING

• Box of 15, 20, 25, or 50 pieces, code B12, B15, B17, or B25, depending of body and shaft construction



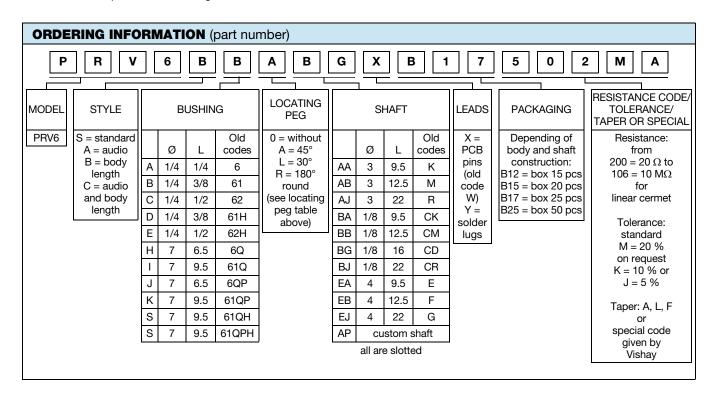
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LOCATING PEG CODE							
BUSHING	OLD CODE	Α	L	R	0		
A	6	х	Х		x ⁽¹⁾		
В	61	Х	Х		x ⁽¹⁾		
С	62	Х	Х		x ⁽¹⁾		
D	61H	Х	Х		x ⁽¹⁾		
E	62H	Х	Х		x ⁽¹⁾		
Н	6Q			Х			
I	61Q			Х			
J	6QP				х		
K	61QP				Х		
S	61QH			Х			
S	61QPH				Х		

Note

⁽¹⁾ Not standard, special manufacturing



PART	PART NUMBER DESCRIPTION (for information only using old codes)												
PRV	S	61	W	CD	5K	20 %	Α		ВО				e3
MODEL	BUSHING	LEADS	SPECIAL	SHAFT	VALUE	TOLERANCE	TAPER	SPECIAL	PACKAGING	SPECIAL	AP Nº	SPECIAL	LEAD FINISH

RELATED DOCUMENTS	
APPLICATION NOTES	
Potentiometers and Trimmers	www.vishay.com/doc?51001
Guidelines for Vishay Sfernice Resistive and Inductive Components	www.vishay.com/doc?52029



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