

Sealing level

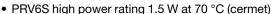
# **Fully Sealed Potentiometer Cermet or Conductive Plastic**



QUICK REFERENCE	E DATA					
Multiple module	No					
Switch module	n/a					
Detent module	n/a					
Special electrical laws	A: linear, L: logarithmic, F: reverse logarithmic					

IP 67

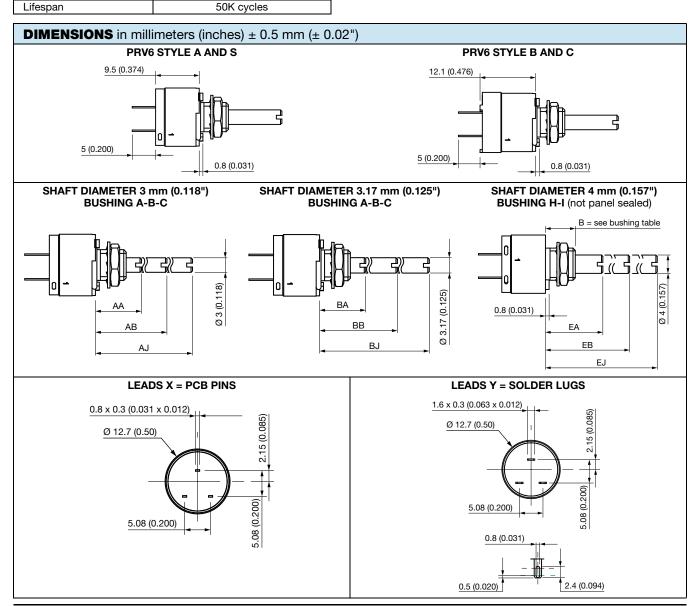
#### **FEATURES**





- PRV6A 0.75 W at 70 °C (conductive plastic)
- Tests according to CECC 41000 or IEC 60393-1
- COMPLIANT

- 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 <a href="https://www.vishay.com/doc?99912"><u>www.vishay.com/doc?99912</u></a>





# Vishay Sfernice

ELECTRICAL SP	ECIFICATIONS							
		PRV6S, PRV6B PRV6A, PRV6C			V6C			
Resistive element		cerm	et	conductive plastic			olastic	
Electrical travel				270°	270° ± 15°			
B	linear taper (A)	20 $\Omega$ to 10 M $\Omega$			1 k $\Omega$ to 1 M $\Omega$			MΩ
Resistance range	non-linear taper (F-L)	470 Ω to 1 MΩ			470 Ω to 500 kΩ (± 20 %)			! (± 20 %)
Taper		V <sub>S</sub> % 90 % 50 % 10 % 25° 50° 75° 15° Electrical travel 270° Mechanical travel 300°						
	standard	± 20	•				± 20 %	
Tolerance	on request	± 10 %,				. 10 0	± 20 % 6 (1 kΩ to	
Circuit diagram		0						
Power rating at 70 °C	linear	1.5 W at			0.75 W at 70 °C			
	other tapers	0.75	W		0.4 W			
Power rating chart		PRV6S, PRV6B linear taper  PRV6S, PRV6B non-linear taper PRV6A, PRV6C linear taper  O.75  PRV6A, PRV6C non-linear taper  O.4  PRV6A, PRV6C non-linear taper  AMBIENT TEMPERATURE IN DEGREES CELSIUS						
Temperature coefficient (typical)		± 150 ppm/°C ± 500 ppm/°C					ı/°C	
Limiting element voltage		350 V						
Contact resistance va		2 % or 3 Ω						
End resistance (typica		1 Ω						
Dielectric strength (RM		1750 V <sub>RMS</sub>						
Insulation resistance (		10 <sup>6</sup> MΩ						
insulation resistance (500 ¥DC)		10° 10175						



# Vishay Sfernice

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	$\Delta R_{T}/R_{T}$ (%)	$\Delta R_{1-2}/R_{1-2}$ (%)	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	AND PRV6B WITH L	INEAR TAPER	PRV6S AND PRV6B WITH NON-LINEAR TAR				
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					





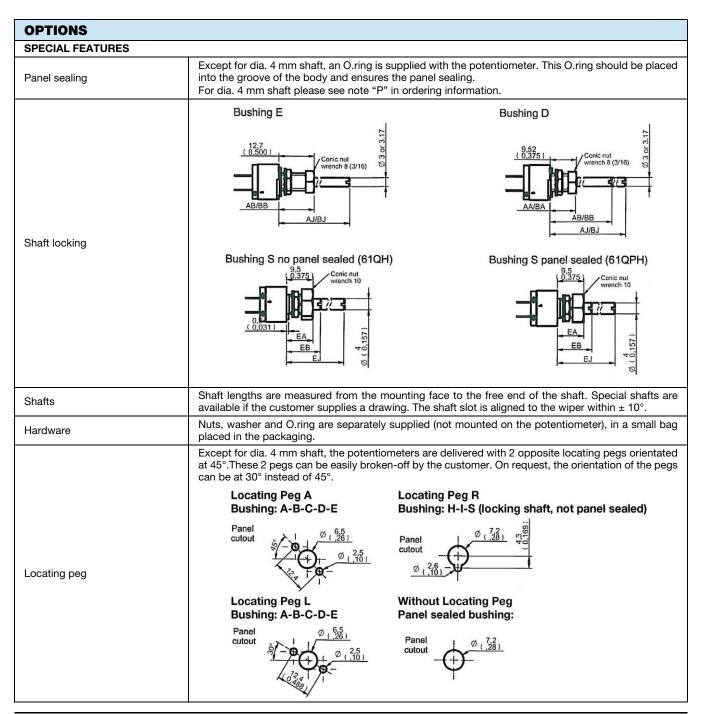


### MARKING

- · 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



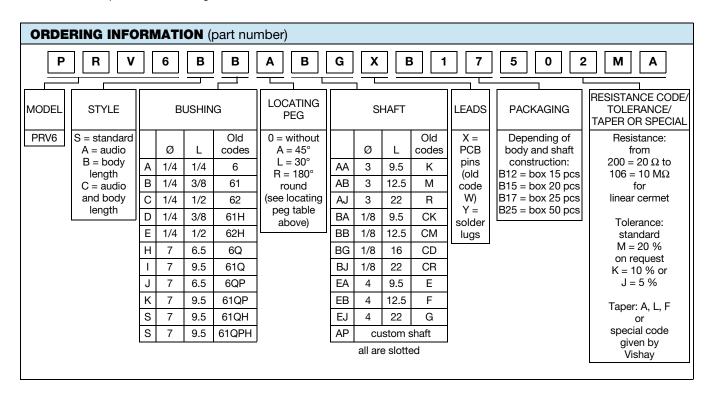
www.vishay.com

## Vishay Sfernice

LOCATING PEG CODE									
BUSHING	OLD CODE	Α	L	R	0				
A	6	х	х		x <sup>(1)</sup>				
В	61	х	Х		x <sup>(1)</sup>				
С	62	х	Х		x <sup>(1)</sup>				
D	61H	х	Х		x <sup>(1)</sup>				
E	62H	х	Х		x <sup>(1)</sup>				
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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Vishay

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