



# PANEL POTENTIOMETERS

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Resistors - Panel Potentiometers Selector Guide

## Devices Optimized for Both Industrial and Military Applications







PE30	P30L	P10	P13
P11S	PRV6	P10L	PA16
PRV4	P16	P11P	P9
P11L	P16S/PA16S	249	P11A
	P13SM	PE60	248

### RESOURCES






- For technical questions contact [sfer@vishay.com](mailto:sfer@vishay.com)
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Panel Potentiometers Selector Guide				
	<a href="#">PE30</a>	<a href="#">P11S</a>	<a href="#">PRV4</a>	<a href="#">P11L</a>
<b>Model</b>				
<b>Applications</b>	Off road Welding machine Machine tool	Off road Welding machine Aeronautics/military Medical Cash dispensers	Off road Welding machine HVAC	Off road Welding machine Aeronautics/military Medical
<b>Main Features</b>	Fully sealed 3 W Robust High torque	Versatile Modular Options	Fully sealed 2 W Robust High torque	High rotational life Modular Options
<b>Life Cycles</b>	25,000	50,000 (1,000,000)	25,000	2,000,000
<b>Size</b>	19.7 mm diam. 3/4"	12.5 mm square 1/2"	19.7 mm diam. 3/4"	12.5 mm square 1/2"
<b>Mounting</b>	PCB/cabling	PCB/cabling	PCB/cabling	PCB/cabling
<b>Technology</b>	Cermet	Cermet	Cermet	Cermet
<b>Temperature Range</b>	- 55 °C + 125 °C	- 55 °C + 125 °C	- 55 °C + 125 °C	- 55 °C + 125 °C
<b>Shaft Material</b>	Metal	Metal	Metal	Metal
<b>Multigang (Y/N)</b>	N	Y	N	Y
<b>Resistance Range</b>	22 Ω to 10 MΩ	22 Ω to 10 MΩ	22 Ω to 10 MΩ	1 kΩ - 5 kΩ - 10 kΩ and 50 kΩ
<b>Variation Laws</b>	Linear/Non-Linear	Linear/Non-Linear	Linear/Non-Linear	Linear
<b>Power Rating (PR)</b>	3 W	1 W	2 W	0.1 W
<b>Standard Tolerance</b>	20 %	20 % 10 %	20 %	20 % 10 %
<b>Miscellaneous Features</b>	300° Mech. travel IP67 Sealing Panel sealing optional	300° Mech. travel IP64 Sealing Panel sealing optional	300° Mech. travel IP67 Sealing Panel sealing optional	300° Mech. travel IP64 Sealing

Panel Potentiometers Selector Guide

	<a href="#">P30L</a>	<a href="#">PRV6</a>	<a href="#">P16</a>	<a href="#">P16S/PA16S</a>	<a href="#">P13SM</a>
<b>Model</b>					
<b>Applications</b>	Off road Machine tool HVAC	Off road Medical equipment Goggles	Medical equipment Goggles Telecom Military	AMS: cockpit/ night vision/head-sets INDUSTRIAL: harsh environment MEDICAL: portable equipment	Marine Applications, Metal Detectors, Harsh Environment Controls
<b>Main Features</b>	High rotational life Fully sealed High torque	Fully sealed Mil design	Low profile Knob included Panel sealing	Low profile Ccw electrical cut off Knob included Indent feeling	Submersible panel potentiometer Salt water resistant 1.5 W at 70 °c
<b>Life Cycles</b>	2,000,000	50,000	50,000	10,000	25,000
<b>Size</b>	19.7 mm diam. 3/4"	12.5 mm diam. 1/2"	16 mm diam. (incl. knob) 5/8"	16 mm diam.	15 mm diam.
<b>Mounting</b>	PCB/cabling	PCB/cabling	PCB/cabling	PCB/cabling	
<b>Technology</b>	Cermet	Cermet	Cermet	Cermet – Cond. Plastic	Cermet
<b>Temperature Range</b>	- 40 °C + 100 °C	- 55 °C + 125 °C	- 40 °C + 125 °C	- 40 °C to 125 °C - NP - 40 °C to 85 °C NM	- 55 °C to 125 °C
<b>Shaft Material</b>	Metal	Metal	Plastic/metal knob	Plastic/metal knob	
<b>Multigang (Y/N)</b>	N	N	N	N	
<b>Resistance Range</b>	1 kΩ - 5 kΩ - 10 kΩ and 50 kΩ	20 Ω to 10 MΩ	22 Ω to 10 MΩ	22 Ω to 10 MΩ - P16S 1 kΩ to 1 MΩ - PA16S	22 Ω to 10 MΩ 1 kΩ to 2.2 MΩ
<b>Variation Laws</b>	Linear	Linear/Non-Linear	Linear/Non-Linear	Linear/Non-Linear	Linear
<b>Power Rating (PR)</b>	2 W	1.5 W	1 W	1 W P16S 0.5W PA16S	1.5 W
<b>Standard Tolerance</b>	20 % 10 %	20 %	20 %	20 %	20 %
<b>Miscellaneous Features</b>	300° Mech. travel IP67 Sealing Panel sealing optional	300° Mech. travel IP67 Sealing Panel sealing optional	300° Mech. travel IP67 Sealing	300° Mech. travel Metal knob available IP67 Sealing	IP68 Sealing

Panel Potentiometers Selector Guide					
	P10	P10L	P11P	249	PE60
<b>Model</b>					
<b>Applications</b>	White goods Climatization Toys	White goods Climatization Toys Consumer goods	Welding machines High voltage adjustment	Welding machines Cash dispensers	Aeronautics/military High voltage Rheostat Aeronautic lighting
<b>Main Features</b>	Economical	High rotational life Economical	All plastic top High dielectric strength	Plastic bushing and all plastic pot available High dielectric strength	6 W Cables
<b>Life Cycles</b>	10,000	500,000	50,000	25,000	25,000
<b>Size</b>	9.5 mm square 3/8"	9.5 mm square 3/8"	12.5 mm square 1/2"	12.7 mm square 1/2"	12.5 mm diam. 1"
<b>Mounting</b>	PCB	PCB	PCB/cabling	PCB	Cable/connector
<b>Technology</b>	Cermet	Cermet	Cermet	Cermet	Cermet
<b>Temperature Range</b>	- 55 °C + 125 °C	- 40 °C + 100 °C	- 40 °C + 100 °C	- 55 °C + 125 °C	- 55 °C + 125 °C
<b>Shaft Material</b>	Plastic	Plastic	Plastic	Plastic/metal	Metal
<b>Multigang (Y/N)</b>	N	N	Y	N	N
<b>Resistance Range</b>	100 Ω to 2 MΩ	1 kΩ - 5 kΩ - 10 kΩ and 50 kΩ	22 Ω to 10 MΩ	500 Ω to 1 MΩ	1 Ω to 1 M
<b>Variation Laws</b>	Linear	Linear	Linear/Non-Linear	Linear/Non-Linear	Linear/Non-Linear
<b>Power Rating (PR)</b>	0.5 W	0.1 W	1 W	1 W	6 W
<b>Standard Tolerance</b>	10 % 5 %	20 % 10 %	20 % 10 %	20 % 10 %	20 % 10 % 5%
<b>Miscellaneous Features</b>	290° Mech. travel IP67 Sealing Panel sealing optional	290° Mech. travel IP67 Sealing Panel sealing optional	300° Mech. travel IP64 Sealing Panel sealing optional	295° Mech. travel IP50 Sealing	300° Mech. travel IP67 Sealing Panel sealing optional

Panel Potentiometers Selector Guide					
	P13	PA16	P9	P11A	248
<b>Model</b>					
<b>Applications</b>	Military	Audio Military	Professional audio	Professional audio	Professional audio
<b>Main Features</b>	Fully sealed Mil design Stability	Low profile Knob included Panel sealing	Small size Versatile Modular Smooth feeling Options	Conductive plastic Versatile Modular Options	Conductive plastic Compact, plastic shaft available
<b>Life Cycles</b>	25,000	50,000	25,000	50,000	25,000
<b>Size</b>	12.6 mm diam. 1/2"	16 mm diam. (incl. knob) 5/8"	9 mm square 3/8"	12.5 mm square 1/2"	12.7 mm square 1/2"
<b>Mounting</b>	PCB/cabling	PCB/cabling	PCB	PCB/cabling	PCB
<b>Technology</b>	Cermet	Conductive plastic	Conductive plastic	Conductive plastic	Conductive plastic
<b>Temperature Range</b>	- 55 °C + 125 °C	- 40 °C + 125 °C	- 55 °C + 100 °C	- 55 °C + 125 °C	- 55 °C + 125 °C
<b>Shaft Material</b>	Metal	Plastic/metal knob	Metal	Metal	Plastic/metal
<b>Multigang (Y/N)</b>	N	N	Y	Y	N
<b>Resistance Range</b>	20 Ω to 10 MΩ	20 Ω to 10 MΩ	1 KΩ to 1 MΩ	1 KΩ to 1 MΩ	500 Ω to 1 MΩ
<b>Variation Laws</b>	Linear/Non-Linear	Linear/Non-Linear	Linear/Non-Linear	Linear/Non-Linear	Linear/Non-Linear
<b>Power Rating (PR)</b>	1.5 W	0.5 W	0.1 W	0.5 W	0.5 W
<b>Standard Tolerance</b>	20 % 10 %	20 %	20 % 10 %	20 % 10 %	20 %
<b>Miscellaneous Features</b>	300° Mech. travel IP67 Sealing Panel sealing optional	300° Mech. travel IP67 Sealing	300° Mech. travel IP64 Sealing Panel sealing optional	300° Mech. travel IP64 Sealing Panel sealing optional	295° Mech. travel IP50 Sealing

Custom Options – Custom Designs		
	Custom shafts and bushings	Available for P11S, P11A, PE30, P9, PRV6, PRV4, P13, PE60, P30L, and P10L
	Custom knobs	Available for P16 and PA16
	Harness and special connectors	Available for P11S, P11A, PE30, P9, PRV6, PRV4, P16, P13, PE60, P30L, and P10L
	Custom shafts	Available for P11S, P11A, P11L, P30L, and P9
	Tracks and resistive elements	On request
	Locking device	Available for P11S, P11A, PE30, PRV6, P13, and PE60

Custom Options – Special Features/Options	
Special tight linearity	Available for P11S, P11A, P11P, PE30, P9, PRV6, PRV4, P13, and PE60
Special interlinearity	Available for P11S, P11A, P11P multigang
1 Million cycles option	Available for P11S, standard for P11L and P30L
On/off switches	Available for P11S, P11A, and P11P
Indent modules	Available for P11S, P11A, and P11P
Custom taper or specific resistive track angle	Available for P11S, P11A, P11P, PA16, P16, PE30, P9, PRV6, PRV4, P13, PE60
Other custom designs and options available on request. This selector guide lists the features of standard generic models. Please check specific datasheets to obtain precise data.	