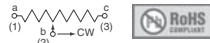




## Single Turn Cermet Knob Potentiometers

### P16 Series 1W



The P16 is a revolutionary concept in panel mounted potentiometers. This unique design consists of a knob driving and incorporated cermet potentiometer. Only the mounting hardware and terminals are situated on the backside of the panel reducing the required clearance to a minimum.

#### FEATURES:

- Test according to CECC 41300 • For professional and industrial applications • Compact (integrated)
- Minimum clearance required • Safety in use due to good insulation: >10<sup>4</sup>MΩ 500VDC

#### ELECTRICAL SPECIFICATIONS:

- Resistive Element: Cermet • Electrical Travel: 270° ±10° • Tolerance (Standard): ±20% • Power Rating (Linear): 1W @ 40°C • Limiting Element Voltage (Linear Law): 350V • Contact Resistance Variation: 3% Rn or 3Ω • End Resistance: 1Ω typical • Dielectric Strength (RMS): 2500V • Insulation Resistance: ≥10<sup>9</sup>MΩ

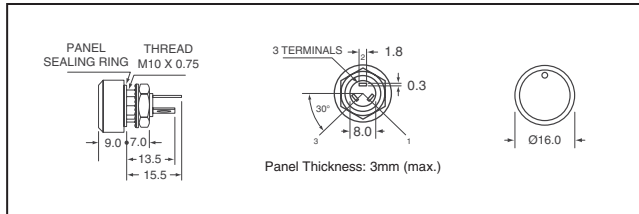
#### MECHANICAL SPECIFICATIONS:

- Mechanical Travel: 300° ±5° • Operating Torque: 2Ncm typical • End Stop Torque: 25Ncm maximum
- Maximum Tightening Torque of Mounting Nut: 250Ncm • Unit Weight: 4.5g typical

#### ENVIRONMENTAL SPECIFICATIONS:

- Temperature Range: -40°C – 85°C • Sealing: Sealed container and panel sealed • Protection Grades: IP67

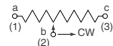
Dimensions in mm



Resistance (Ω)	Digi-Key Part No.	Price Each			
		1	10	50	100
100	P16NP-100-ND	15.04	12.20	9.76	8.95
470	P16NP-470-ND	15.04	12.20	9.76	8.95
1.0K	P16NP-1.0K-ND	15.04	12.20	9.76	8.95
2.2K	P16NP-2.2K-ND	15.04	12.20	9.76	8.95
4.7K	P16NP-4.7K-ND	15.04	12.20	9.76	8.95
10K	P16NP-10K-ND	15.04	12.20	9.76	8.95
22K	P16NP-22K-ND	15.04	12.20	9.76	8.95
47K	P16NP-47K-ND	15.04	12.20	9.76	8.95
100K	P16NP-100K-ND	15.04	12.20	9.76	8.95
470K	P16NP-470K-ND	15.04	12.20	9.76	8.95
1.0M	P16NP-1.0M-ND	15.04	12.20	9.76	8.95

## Single Turn Cermet Fully Sealed Potentiometers

### PE30 Series 3W



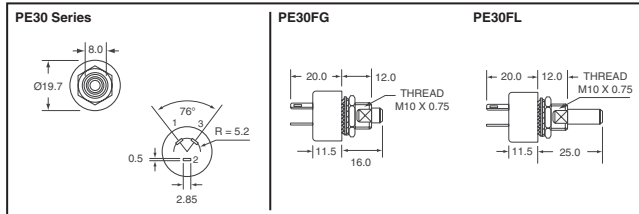
#### FEATURES:

- High power rating • Low temperature coefficient (100ppm/°C typical) • Full sealing • Mechanical strength
- Use of faston 2.86 connections • Test according to CECC 41 000

#### ELECTRICAL SPECIFICATIONS:

- Resistive Element: Cermet • Electrical Travel: 270° ±10° • Tolerance (Standard): ±20% • Power Rating (Linear): 3W @ 70°C • Limiting Element Voltage (Linear Law): 300V • Contact Resistance Variation: 3% Rn or 3Ω • End Resistance: 1Ω typical • Dielectric Strength (RMS): 2500V • Insulation Resistance (500VDC): 10<sup>6</sup>MΩ

Dimensions in mm



Resistance (Ω)	Digi-Key Part No.	Digi-Key Part No.	Price Each			
			1	10	50	100
<b>PE30FG and PE30FL Series</b>						
1.0K	PE30FG-1.0K-ND	PE30FL-1.0K-ND	22.74	18.20	16.68	15.17
4.7K	PE30FG-4.7K-ND	PE30FL-4.7K-ND	22.74	18.20	16.68	15.17
10K	—	PE30FL-10K-ND	22.74	18.20	16.68	15.17

## Single and Dual-Ganged Conductive Plastic Potentiometers

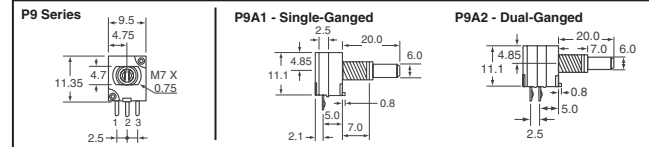
### P9 Series

FEATURES: • Conductive plastic element • Ultra compact (extra miniature module size)

ELECTRICAL SPECIFICATIONS: • Resistive Element: Conductive Plastic • Electrical Travel: 270° ±10° • Tolerance (Standard): ±20% • Power Rating @ 70°C (Linear Law): 0.1W • Power Rating @ 70°C (Multiple assemblies Linear Law): 0.05W per module • Temperature Coefficient: ±500 ppm typical • Limiting Element Voltage: 10VDC, 50VAC • End Resistance: 3Ω typical • Contact Resistance Variation (Linear Law - Typical): 2% of nominal resistance • Independent Linearity (Linear Law): ±5% typical • Insulation Resistance: 100MΩ @ 250VDC • Dielectric Strength (RMS): 300VAC during 1 minute • Attenuation (Typical): 90dB max. / 0.05dB min.

MECHANICAL SPECIFICATIONS: • Mechanical Travel: 300° ±5° • Mechanical Rotation Life: 25,000 cycles • Operating Torque: 0.2Ncm up to 2.5Ncm typical • End Stop Torque: 50Ncm

Dimensions in mm



Resistance (Ω)	Digi-Key Part No.	Price Each			
		1	10	50	100
<b>P9A1 Series</b>					
1.0K	P9A1-1.0K-ND	7.14	5.80	4.64	4.25
10K	P9A1-10K-ND	8.67	7.03	5.63	5.16
50K	P9A1-50K-ND	8.67	7.03	5.63	5.16
<b>P9A2 Series</b>					
1.0K	P9A2-1.0K-ND	12.23	9.92	7.94	7.28
10K	P9A2-10K-ND	12.23	9.92	7.94	7.28
50K	P9A2-50K-ND	12.23	9.92	7.94	7.28



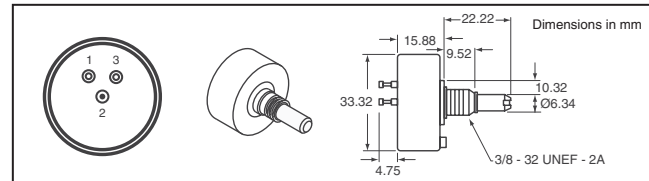
## Wirewound Potentiometers



### 132 Series, 2.75W, 1 5/16" Single-Turn

Electrical Specifications: • Housing: Molded glass filled thermoplastic • Rear Lid: Glass filled thermostat plastic • Shaft: Stainless Steel, non-magnetic • Terminals: Brass, plated for solderability, non-passivated • Resistance tolerance: ±3% Power Rating: 2.75W (Derated to 0 + 125°C)

Features: • Continuous Rotation or with Mechanical Stops • Rotational Life, Shaft Revolutions: 500,000 • Mounting Hardware included

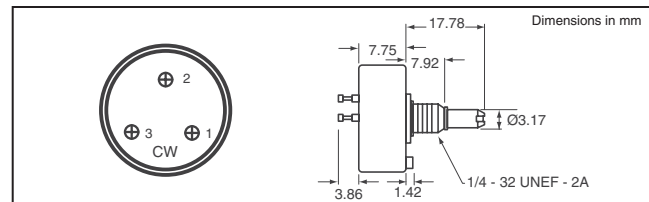


Res. Ω	Digi-Key Part No.	Price Each			Vishay Part No.
		1	5	10	
<b>Continuous Rotation</b>					
1.0K	SP132C-1.0K-ND	27.83	25.13	22.41	132-0-0-102
2.0K	SP132C-2.0K-ND	27.83	25.13	22.41	132-0-0-202
5.0K	SP132C-5.0K-ND	27.83	25.13	22.41	132-0-0-502
10K	SP132C-10K-ND	27.83	25.13	22.41	132-0-0-103
<b>Mechanical Stops</b>					
1.0K	SP132S-1.0K-ND	27.25	24.78	22.72	132-2-0-102
2.0K	SP132S-2.0K-ND	27.25	24.78	22.72	132-2-0-202
5.0K	SP132S-5.0K-ND	27.25	24.78	22.72	132-2-0-502
10K	SP132S-10K-ND	27.25	24.78	22.72	132-2-0-103

### 140 Series, 2W, 1/2" Single-Turn

Electrical Specifications: • Resistance Tolerance: ±5% • Power Rating: 2W at 40°C ambient derating linearly to 0 at 125° • Rotational Life: 500,000 Shaft Revolutions • Temperature Range: -55°C – 125°C

Material Specifications: • Shaft: Stainless steel, non-magnetic, non-passivated • Housing: Aluminum, anodized • Rear Lid: Molded glass filled thermoset plastic • Terminals: Brass, gold plated • Lockwasher Internal Tooth: Steel, nickel plated • Panel Nut: Brass, nickel plated • Mounting Hardware included



Res. Ω	Digi-Key Part No.	Price Each			Vishay Part No.
		1	5	10	
1.0K	SP140-1.0K-ND	63.50	45.25	38.50	140-0-0-102
2.0K	SP140-2.0K-ND	63.50	45.25	38.50	140-0-0-202
5.0K	SP140-5.0K-ND	63.50	45.25	38.50	140-0-0-502
10K	SP140-10K-ND	63.50	45.25	38.50	140-0-0-103

(Continued)

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