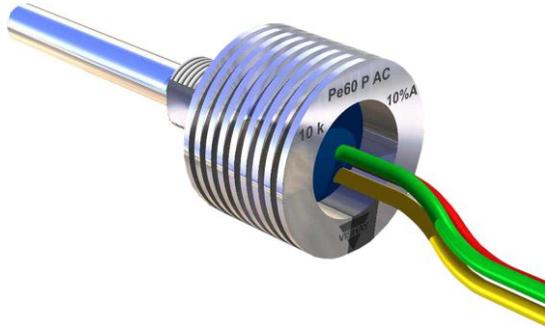


## Power Panel 6 W Potentiometer



### FEATURES

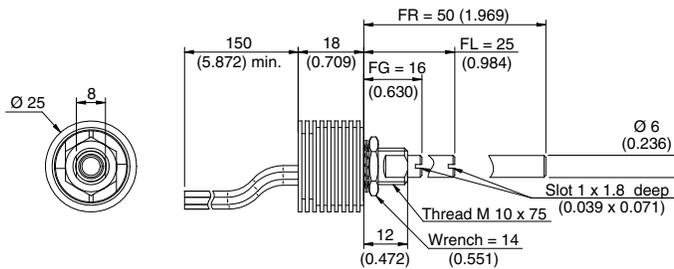
- High power rating 6 W at 50 °C
- Cermet element
- Full sealing
- Mechanical strength
- Industrial and professional grade
- Tests according to CECC 41000 or IEC 60393-1
- Material categorization: For definitions of compliance please see [www.vishay.com/doc?99912](http://www.vishay.com/doc?99912)



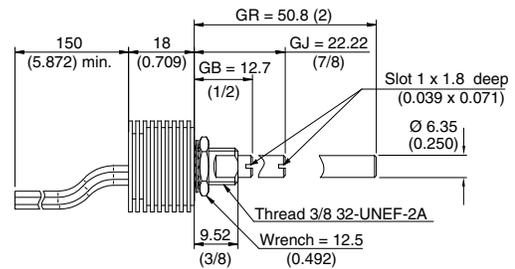
**RoHS**  
COMPLIANT

### DIMENSIONS in millimeters (inches) ± 0.5 mm (± 0.02")

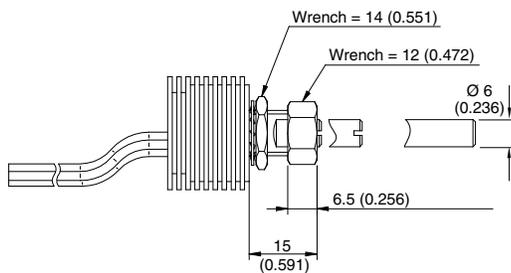
#### PE 60 L



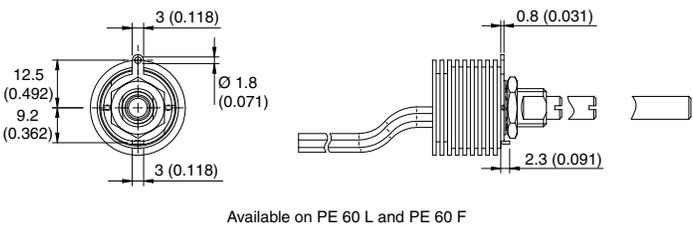
#### PE 60 F



#### OPTION D: DBAN SHAFT LOCKING



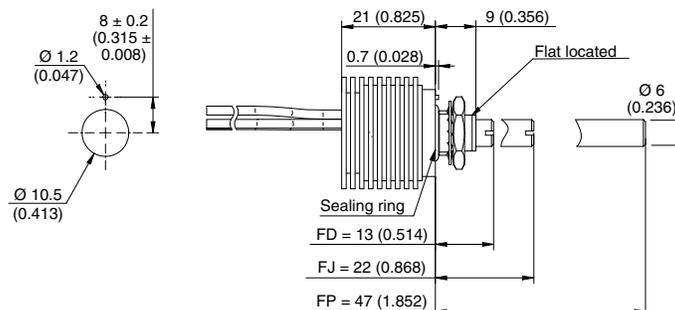
#### OPTION L: PE 60 LPRP - WITH LOCATING PEG



#### Panel sealed version

#### PE 60 M

#### OPTION E: Including locating peg (available only for PE 60 M)



ELECTRICAL SPECIFICATIONS		
Resistive Element		Cermet
Electrical Travel		270° ± 10°
Resistance Range	Linear Taper Logarithmic Taper	1 Ω to 1 MΩ 100 Ω to 2.2 MΩ
Standard Series e3		1 - 2 - 2.5 - 5
Tolerance	Standard On Request	± 20 % ± 10 %
Taper		<p>The graph plots % Total Resistance (0 to 100) against % Clockwise Shaft Rotation (0 to 100). Three curves are shown: 'L' (Linear) is a straight line from (0,0) to (100,100); 'F' (Logarithmic) starts at (0,0) and rises more steeply than 'L'; 'A' (Logarithmic) starts at (0,0) and rises more gradually than 'L'.</p>
Circuit Diagram		<p>A schematic diagram of a resistor with three terminals: (1) Green, (2) Red, and (3) Yellow. An arrow indicates clockwise (CW) rotation.</p>
Power Rating	Linear Logarithmic	6 W at 50 °C 3 W at 50 °C <p>The graph plots Power in W (0 to 6) against Ambient Temperature in °C (0 to 140). Two lines are shown: 'LIN. TAPER "A"' starts at 6 W at 50 °C and decreases to 0 W at 125 °C; 'LOG. TAPER "L and F"' starts at 3 W at 50 °C and decreases to 0 W at 125 °C.</p>
Temperature Coefficient		See Standard Resistance Element Data
Limiting Element Voltage (Linear Taper)		350 V
Contact Resistance Variation (Linear Taper)		3 % Rn or 1 %
End Resistance (Typical)		0.5 Ω or 1 %
Dielectric Strength (RMS)		2500 V
Insulation Resistance (500 VDC)		10 <sup>5</sup> MΩ

MECHANICAL SPECIFICATIONS	
Mechanical Travel	300° ± 5°
Operating Torque (Typical)	3 Ncm max.
End Stop Torque	70 Ncm max.
Tightening Torque of Mounting Nut	250 Ncm
Unit Weight	25 g to 35 g max.

ENVIRONMENTAL SPECIFICATIONS	
Temperature Range	- 55 °C to + 125 °C
Climatic Category	55/125/56
Sealing	Fully sealed - Container IP67



OPTIONS	
<b>Command Shaft</b>	Length is measured from the mounting surface to the free end of the shaft. The screwdriver slot is aligned with the wiper within $\pm 10^\circ$ . Special shafts are available, in accordance to drawings supplied by customers. We recommend that customers should not machine shafts, in order to avoid damage.
<b>Panel Sealing: PE60M</b>	The panel sealing device consists of a ring located in a groove on the potentiometer face. Sealing is obtained by tightening the ring against the panel when mounting the potentiometer.
<b>Shaft Locking: DBAN</b>	The shaft locking device consists of a tapered nut tightening a slotted notched washer against both bushing and shaft. DBAN tightening torque is 200 Ncm, shaft locking torque being 30 Ncm. DBAN is also available with all special types. This device is normally supplied in a separate bag. Can be pre-mounted on request.
<b>Locating Peg: LPRP</b>	Location is obtained by fitting a special washer on the potentiometer face. The peg can therefore be positioned at $90^\circ$ , $180^\circ$ , $270^\circ$ and $360^\circ$ .

PERFORMANCE				
TESTS	CONDITIONS	TYPICAL VALUES AND DRIFTS		
		$\Delta R_T/R_T$ (%)	$\Delta R_{1-2}/R_{1-2}$ (%)	OTHER
<b>Electrical Endurance</b>	1000 h at rated power 90°/30° - ambient temp. 25 °C	$\pm 3\%$	-	Contact res. variation: < 3 % Rn
<b>Climatic Sequence</b>	Phase A dry heat 125 °C Phase B damp heat Phase C cold - 55 °C Phase D damp heat 5 cycles	$\pm 0.5\%$	$\pm 1\%$	-
<b>Damp Heat, Steady State</b>	56 days	$\pm 0.5\%$	$\pm 1\%$	Insulation resistance: > $10^4$ M $\Omega$
<b>Change of Temperature</b>	5 cycles, - 55 °C at + 125 °C	$\pm (0.5\% \pm 0.1 \Omega)$	-	-
<b>Mechanical Endurance</b>	25 000 cycles	$\pm 3\%$	-	Contact res. variation: < 5 % Rn
<b>Shock</b>	50 g's at 11 ms, 3 successive shocks in 3 directions	$\pm 0.1\%$	$\pm 0.2\%$	-
<b>Vibration</b>	10 Hz to 55 Hz, 0.75 mm or 10 g's during 6 h	$\pm 0.1\%$	$\pm 0.2\%$	-

STANDARD RESISTANCE ELEMENT DATA				
STANDARD RESISTANCE VALUES	LINEAR TAPER			TYPICAL TCR - 55 °C + 125 °C
	MAX. POWER at 50 °C	MAX. WORKING VOLTAGE	MAX. CUR. THROUGH WIPER	
$\Omega$	W	V	mA	ppm/°C
1	6	2.4	2449	$\pm 500$
2	6	3.5	1732	
5	6	5.5	1095	
10	6	7.7	775	
20	6	11.0	548	
25	6	12.2	490	
50	6	17.3	346	$\pm 250$
100	6	24.5	245	
200	6	34.6	173.2	
250	6	38.7	154.9	
500	6	54.8	109.5	
1K	6	77.5	77.5	
2K	6	110	54.8	
2.5K	6	122	49.0	
5K	6	173	34.64	
10K	6	245	24.49	
20K	6	346	17.32	
25K	4.90	350	14.00	
50K	2.45	350	7.00	
100K	1.23	350	3.50	
200K	0.61	350	1.75	
250K	0.49	350	1.40	
500K	0.25	350	0.70	
1M	0.12	350	0.35	

MARKING
Printed: - Vishay trademark - Part number - Manufacturing date

PACKAGING
- In box of 5 pieces



ORDERING INFORMATION (part number)																	
P	E	6	0	L	0	F	G	W	2	0	4	M	A				
MODEL	BUSHING	OPTION		SHAFT			LEADS	OHMIC VALUE	TOLERANCE		TAPER		SPECIAL NUMBER				
PE60	M = Panel sealed L = STD F = 3/8"	0 = None  For L bushing D = DBAN L = LPRP B = DBAN and LPRP  For F bushing L = LPRP  For M bushing E = Peg		For L bushing FG 16 mm, slotted FL 25 mm, slotted FR 50 mm, plain  For F bushing GB 1/2", slotted GJ 7/8", slotted GR 2", slotted  For M bushing FD = 13 mm, slotted FJ = 22 mm, slotted FP = 47 mm, plain			W: Wire	204 = 200 kΩ	± 20 % On request: ± 10 % ± 5 %		A = Linear L = Clockwise logarithmic F = Clockwise inverse logarithmic		(if applicable) Given by Vishay for custom design				

PART NUMBER DESCRIPTION (for information only)											
PE60	L	0	FG	W	200 kΩ	20 %	A	BO5			e4
MODEL	BUSHING	OPTION	SHAFT	LEADS	OHMIC VALUE	TOL.	TAPER	PACKAGING	SPECIAL	SPECIAL	LEAD (Pb)-FREE



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# Mouser Electronics

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