



ELECTRICAL SPECIFICATIONS		
Resistive Element		cermet
Electrical Travel		250° ± 15°
Resistance Range		100 Ω to 2 MΩ
Standard series		1 - 2 - 5
Tolerance	Standard	± 10 %
	On Request	± 5 %
Power Rating	Linear	0.5 W at + 70 °C
	Logarithmic	not applicable
Temperature Coefficient		See Standard Resistance Element Table
Limiting Element Voltage (Linear Law)		250 V
Contact Resistance Variation		1 % Rn or 2 Ω
End Resistance (Typical)		1 Ω
Dielectric Strength (RMS)		1000 V
Insulation Resistance		10 ⁶ MΩ

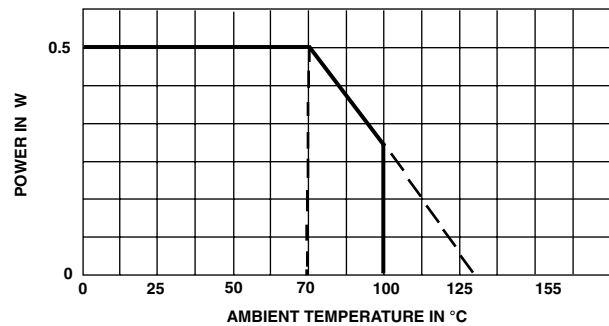
MECHANICAL SPECIFICATIONS

Mechanical Travel	290° ± 5°
Operating Torque (max. Ncm)	2
End Stop Torque (max. Ncm)	7
Tightening Torque (max. Ncm)	25
Unit Weight (max. g)	1

ENVIRONMENTAL SPECIFICATIONS

Temperature Range	- 55 °C to + 125 °C
Climatic Category	55/100/56
Sealing	fully sealed container IP67

POWER RATING CHART



PERFORMANCE			
TESTS	CONDITIONS	TYPICAL VALUES AND DRIFTS	
		$\frac{\Delta RT}{RT}$ (%)	$\frac{\Delta R_{1-2}}{R_{1-2}}$ (%)
Load Life	1000 hours at rated power 90°/30° - ambient temperature 70 °C	± 1 % Contact res. variation: < 1 % Rn	± 2 %
Climatic Sequence	Phase A dry heat 100 °C Phase B damp heat Phase C cold - 55 °C Phase D damp heat 5 cycles	± 1 %	± 2 %
Long Term Damp Heat	56 days 40 °C, 93 % RH	± 1 % Dielectric strength: 1000 V RMS Insulation resistance: > 10 ⁴ MΩ	± 2 %
Rapid Temperature Change	5 cycles - 55 °C at + 125 °C	± 1 %	$\frac{\Delta V_{1-2}}{V_{1-3}} \leq \pm 2 \%$
Shock	50 g at 11 m secs 3 successive shocks in 3 directions	± 0.5 %	± 1 %
Vibration	10 - 55 Hz 0.75 mm or 10 g during 6 hours	± 0.5 %	$\frac{\Delta V_{1-2}}{V_{1-3}} \leq \pm 1 \%$
Rotational Life	10 000 cycles	± 3 % Contact res. variation: < 2 % Rn	



STANDARD RESISTANCE ELEMENT DATA					
STANDARD RESISTANCE VALUES	LINEAR LAW			TYPICAL TCR - 55 °C + 125 °C	
	MAX. POWER AT 70 °C	MAX. WORKING VOLTAGE	MAX. CUR. THROUGH WIPER		
Ω	W	V	mA	ppm/°C	
100	0.5	7.0	70	± 150	
200	↓	10.0	50		
500		15.8	32		
1K		22.4	22		
2K		31.8	16		
5K		50.0	10		
10K	↓	70.7	7.0		
20K		100	5.0		
50K		158	3.2		
100K		0.5	224		2.2
200K		0.28	250		1.3
500K	0.13	250	0.5		
1M	0.06	250	0.25		
2M	0.028	250	0.13		

MARKING

Printed:

- VISHAY trademark
- model
- ohmic value
- manufacturing date
- pin 3

The ohmic value is indicated by a 3 figures code: the first two digits are significant figures, the third digit is the multiplier:

- Example: 101 = 100 Ω
- 102 = 1000 Ω
- 503 = 50 000 Ω

The manufacturing date is indicated by a 4 figures code. The first two digits are the year, the last two digits are the week.

SHAFTS

Standard shaft 20 mm length (R or AI code) and 16 mm length (D or AG code) is measured from the mounting face to the free end of the shaft.

Vishay guarantee is lost if the customer modifies the shaft himself.

HARDWARE

Nuts and washer are supplied separately (not mounted on the potentiometer) in a small bag placed in the packaging.

PACKAGING
- Carton boxes of 100 pieces

ORDERING INFORMATION						
P10 MODEL	XX VERSION	R AXE	500 kΩ OHMIC VALUE	± 10 % TOLERANCE	BO100 PACKAGING	e3 LEAD FINISH
	XX YP XH YE XC YM XW	R = AI = 20 mm D = AG = 16 mm				e3: pure Sn

SAP PART NUMBERING GUIDELINES																
P	1	0	X	X	A	I	5	0	4	K	B	3	0			
MODEL			STYLE		SHAFT		OHMIC VALUE			TOL	PACKAGING CODE		SPECIAL (IF APPLICABLE)			
See the end of this data book for conversion tables																



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