# Vishay Spectrol



# 3/8" Square (10 mm) Multi-Turn Cermet Trimmer



#### **FEATURES**

- Industrial Grade
- 0.5 W at 70 °C
- Tests according to CECC 41 000
- Contact resistance variation < 1 % typical

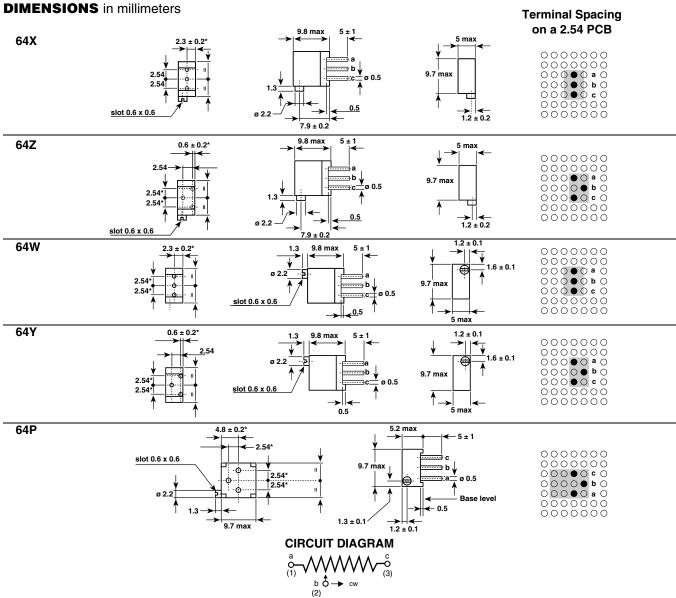


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The Model 64 is a small size trimmer - 3/8" x 3/8" x 3/16" - answering PC board mounting requirements.

Five versions are available which differ by the position of the control screw in relation to the PC board plane and by the spacing of the terminals.

Excellent operational stability is provided by the use of a cermet element.



\* to be measured at base level

Tolerance unless otherwise specified ± 0.5





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ELECTRICAL SF	PECIFICATIONS		
Resistive Element		cermet	
Electrical Travel		21 turns ± 2	
Resistance Range		10 $\Omega$ to 2.2 M $\Omega$	
Standard series e3		1 - 2 - 2.5 - 5	
Tolerance	Standard	± 10 %	
	On Request	± 5 %	
Power Rating	Linear	0.5 W at + 70 °C	
	Logarithmic	not applicable	
Temperature Coefficie	nt	see Standard Resistance Element Table	
Limiting Element Volta	ge (Linear Law)	250 V	
Contact Resistance Va	ntact Resistance Variation $2\%$ Rn or $2\Omega$		
End Resistance (Typic	al)	1 Ω	
Dielectric Strength (RMS)		1000 V	
Insulation Resistance	(500 VDC)	10 <sup>6</sup> MΩ	

#### **MECHANICAL SPECIFICATIONS**

**Mechanical Travel** 23 turns ± 5 **Operating Torque (max. Ncm)** 1.5

**End Stop Torque** clutch action **Net Weight** Approx. 0.82 g

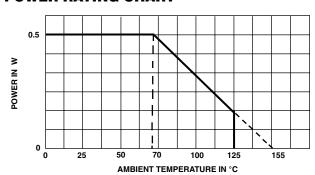
Wiper (actual travel) Positioned at approx. 50 %

### **ENVIRONMENTAL SPECIFICATIONS**

**Temperature Range** - 55 °C to + 155 °C **Climatic Category** 55/125/56 Sealing fully sealed

container IP67

#### **POWER RATING CHART**



PERFORMANCE					
		TYPICAL VALUES AND DRIFTS			
TESTS	CONDITIONS	<u>∆RT</u> (%)	$\frac{\Delta R_{1-2}}{R_{1-2}} $ (%)		
Load Life	1000 hours at rated power 90'/30' - ambient temp. 70 °C	± 1 % Contact res. variation: < 1 % Rn	± 2 %		
Climatic Sequence	Phase A dry heat 125°C - 30 % Pr Phase B damp heat Phase C cold - 55 °C Phase D damp heat 5 cycles	± 0.5 %	± 1 %		
	56 days 40°C, 93 % RH	± 0.5 %	± 1 %		
Long Term Damp Heat		Dielectric strength: 1000 $V_{RMS}$ Insulation resistance: > $10^4  M\Omega$			
Rapid Temperature Change	5 cycles - 55 °C at + 125 °C	± 0.5 %	$\frac{\Delta V_{1-2}}{V_{1-3}} \leq \pm 1 \%$		
Shock	50 g at 11 m seconds 3 successive shocks in 3 directions	± 0.1 %	± 0.2 %		
Vibration	10 - 55 Hz 0.75 mm or 10 g during 6 hours	± 0.1 %	$\frac{\Delta V_{1-2}}{V_{1-3}} \leq \pm 0.2 \%$		
Rotational Life	200 cycles	± 4 %			
Totallonal End	200 00000	Contact res. variation: < 1 % Rn			

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STANDARD RESISTANCE ELEMENT DATA					
STANDARD		TYPICAL			
RESISTANCE VALUES	MAX. POWER AT 70 °C	MAX. WORKING VOLTAGE	MAX. CUR. THROUGH WIPER	TCR - 55 °C +125 °C	
Ω	W	V	mA	ppm/°C	
10	0.5	2.2	224		
20	ı	3.2	158		
50		5	100		
100		7.1	71		
200		10	50		
250		11.2	45		
500		15.8	32		
1K		22.4	22		
2K		31.6	16		
2.5K		35.4	14		
5K		50	10	± 100	
10K		70.7	7.1		
20K		100	5		
25K	★	112	4.5		
50K	▼	158	3.2		
100K	0.5	224	2.2		
200K	0.31	250	1.3		
250K	0.25	250	1		
500K	0.125	250	0.5		
1M	0.063	250	0.25		
2M	0.031	250	0.13		

#### **MARKING**

#### Printed:

- VISHAY trademark
- model
- style
- ohmic value (in  $\Omega$ ,  $k\Omega$ ,  $M\Omega$ )
- tolerance (in %)
- manufacturing date
- marking of terminal 3

LEAD FINISH Pure Sn. Code e3

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- In bulk (box of 200 pieces), code B0200
- On request in tube

ORDERING INFORMATION				
64 MODEL	<b>P</b> TERMINAL STYLE	<b>201</b> EIA RESISTANCE CODE	e3 LEAD FINISH	
	P, W, X, Y or Z		e3: pure Sn	

SAP PART NUMBERING GUIDELINES				
M 6 4	P 2 0 1	K B 4 0		
MODEL	STYLE OHMIC VALUE	TOL PACKAGING CODE	SPECIAL (IF APPLICABLE)	
See the end of this data book for conversion tables				



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