**Vishay Spectrol** 



RoHS

COMPLIANT

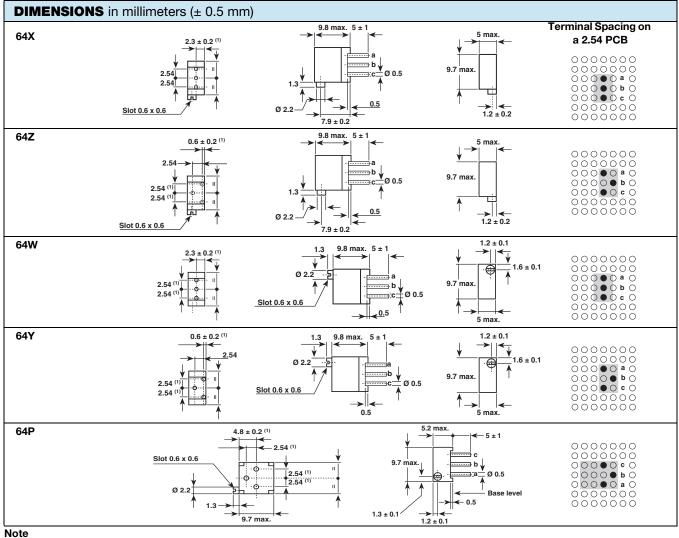
## 3/8" Square (10 mm) Multi-Turn Cermet Trimmer



The Model 64 is a small size trimmer -  $3/8" \times 3/8" \times 3/16"$  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.

### FEATURES

- Industrial grade
- 0.5 W at 70 °C
- Tests according to CECC 41000 or IEC 60393-1
- Contact resistance variation < 1 % typical
- Compliant to RoHS Directive 2002/95/EC



<sup>(1)</sup> To be measured at base level

Document Number: 57028 Revision: 20-Sep-10



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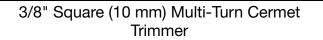
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Resistive element	Cermet				
Electrical travel	21 turns ± 2				
Resistance range	10 Ω to 2.2 MΩ				
Standard series E3	1 - 2 - 2.5 - 5				
T-1Si	ard 10 %				
Tolerance On	5 %				
	ear 0.5 W at + 70 °C				
Power rating	$ \begin{array}{c} 0.5 \\ 0.6 \\ 0.7 $				
Circuit diagram	$ \begin{array}{c} \overset{a}{\bigcirc} & & & \overset{c}{\bigcirc} \\ \overset{(1)}{\swarrow} & \overset{b}{\bigcirc} & & \overset{c}{\rightarrow} & \overset{c}{(3)} \\ \overset{(2)}{\swarrow} & & & & & & \\ \end{array} $				
Temperature coefficient	See Standard Resistance Element table				
Limiting element voltage (linear law)	250 V				
Contact resistance variation	2 % Rn or 2 Ω				
End resistance (typical)	1 Ω				
Dielectric strength (RMS)	1000 V				
Insulation resistance (500 V <sub>DC</sub> )	10 <sup>6</sup> ΜΩ				

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 %		
Terminals	Pure Sn (code e3)		

ENVIRONMENTAL SPECIFICATIONS			
Temperature range	- 55 °C to + 155 °C		
Climatic category	55/125/56		
Sealing	Fully sealed - IP67		

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STANDARD RESISTANCE ELEMENT DATA					
STANDARD		LINEAR LAW			
RESISTANCE VALUES	MAX. POWER AT 70 °C	MAX. WORKING VOLTAGE	MAX. CURRENT THROUGH WIPER	TCR - 55 °C + 125 °C	
Ω	W	V	mA	ppm/°C	
10 20 50 100 250 500 1K 2K 2.5K 5K 10K 20K 25K 50K 100K 250K 500K 100K 250K 500K 1M 2M	$\begin{array}{c} 0.5\\ 0.5\\ 0.5\\ 0.5\\ 0.5\\ 0.5\\ 0.5\\ 0.5\\$	$\begin{array}{c} 2.2\\ 3.2\\ 5\\ 7.1\\ 10\\ 11.2\\ 15.8\\ 22.4\\ 31.6\\ 35.4\\ 50\\ 70.7\\ 100\\ 112\\ 158\\ 224\\ 250\\ 250\\ 250\\ 250\\ 250\\ 250\\ 250\\ 250$	224 158 100 71 50 45 32 22 16 14 10 7.1 5 4.5 3.2 2.2 1.3 1 0.5 0.25 0.13	± 100	

PERFORMANCES				
TESTS	CONDITIONS	TYPICAL VALUES AND DRIFTS		
12515	CONDITIONS	∆ <b>R</b> <sub>T</sub> / <b>R</b> <sub>T</sub> (%)	∆R <sub>1-2</sub> /R <sub>1-2</sub> (%)	
Load life	1000 h 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%	
Long term damp heat	56 days 40 °C, 93 % RH	$\pm$ 0.5 % Dielectric strength: 1000 $V_{RMS}$ Insulation resistance: $>10^4~M\Omega$	±1%	
Rapid temperature change	5 cycles - 55 °C to + 125 °C	± 0.5 %	$\Delta V_{1\text{-}2} / \Delta V_{1\text{-}3} \leq \pm 1 \%$	
Shock	50 g at 11 ms 3 successive shocks in 3 directions	± 0.1 %	± 0.2 %	
Vibration	10 Hz to 55 Hz 0.75 mm or 10 g during 6 h	± 0.1 %	$\Delta V_{1\text{-}2} / \Delta V_{1\text{-}3} \leq \pm 0.2 \%$	
Rotational life	200 cycles	± 4 % Contact res. variation: < 1 % Rn	_	

#### MARKING

- Vishay trademark
- Model
- Style
- Ohmic value (in  $\Omega$ , k $\Omega$ , M $\Omega$ )
- Tolerance (in %)
- Manufacturing date
- Marking of terminal 3



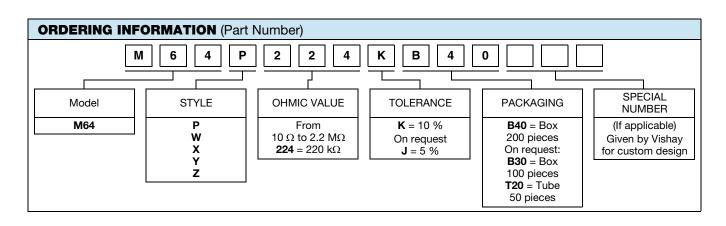
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#### PACKAGING

- In box of 200 pieces code B40 (BO200)
- On request:
- In box of 100 pieces code B30 (BO100)
- In tube of 50 pieces code T20 (TU50)



DESCRIPTION (for information only)						
64	Р	220K	10 %		BO200	e3
MODEL	STYLE	VALUE	TOLERANCE	SPECIAL	PACKAGING	LEAD FINISH



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Vishay Intertechnology, Inc. hereby certifies that all its products that are identified as RoHS-Compliant fulfill the definitions and restrictions defined under Directive 2011/65/EU of The European Parliament and of the Council of June 8, 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment (EEE) - recast, unless otherwise specified as non-compliant.

Please note that some Vishay documentation may still make reference to RoHS Directive 2002/95/EC. We confirm that all the products identified as being compliant to Directive 2002/95/EC conform to Directive 2011/65/EU.

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