## Vishay Spectrol



# 3/4" Rectangular (19 mm) Multi-Turn Cermet Trimmer



The Model 43 is manufactured to the highest international standards. This product, sealed to 85 °C for 1 minute (IEC. 68-2-17) has an effective travel of 18 turns nominal and a resistance range of 10  $\Omega$  to 2  $\text{M}\Omega.$ 

#### **DIMENSIONS** in inches (millimeters)

#### **FEATURES**

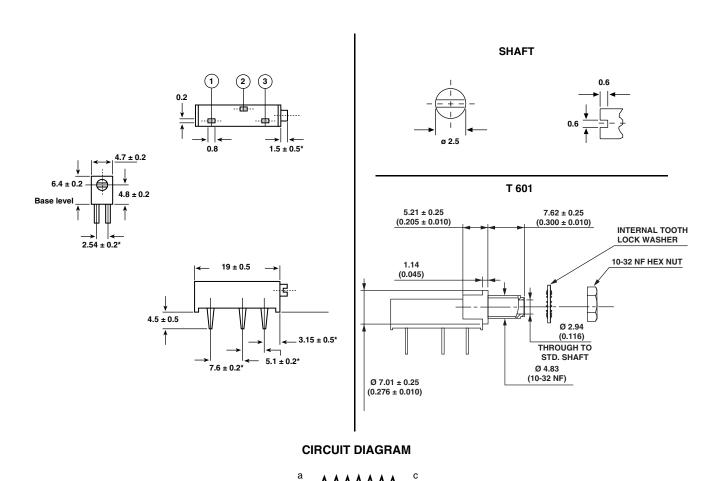




Chevron shaft for sealing and smooth consistent torque

Solder terminations for improved reliability

• Multi-finger wiper for better C.R.V.



Tolerance unless otherwise specified ± 0.5

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ELECTRICAL SPE	CIFICATIONS			
Resistive Element		cermet		
Electrical Travel		15 turns ± 1		
Resistance Range		10 $\Omega$ to 2.2 M $\Omega$		
Standard series E3		1 - 2.2 - 4.7 and 1 - 2 - 5		
Tolerance	Standard	± 10 %		
	On Request	± 5 %		
Power Rating	Linear	0.50 W at + 70 °C		
	Logarithmic	not applicable		
Temperature Coefficient		See Standard Resistance Element Table		
Limiting Element Voltage (Linear Law)		250 V		
Contact Resistance Variation		2 % Rn or 1 Ω		
End Resistance (Typical)		1 Ω		
Dielectric Strength (RMS)		1000 V		
Insulation Resistance (500 VDC)		10 <sup>6</sup> MΩ		

#### **MECHANICAL SPECIFICATIONS**

**Mechanical Travel** 18 turns  $\pm$  5

Operating Torque (max. Ncm) 2

**End Stop Torque** clutch action

Unit Weight (max. g)

Wiper (actual travel) positioned at approx. 50 %

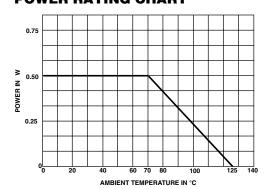
**Environmental specifications** 

**Temperature Range** - 55 °C to + 125 °C

**Climatic Category** 55/125/56 Sealing fully sealed

container IP67

## **POWER RATING CHART**



PERFORMANCE				
		TYPICAL VALUES AND DRIFTS		
TESTS	CONDITIONS	$\frac{\Delta RT}{RT}$ (%)	$\frac{\Delta R_{1-2}}{R_{1-2}}$	
Load Life	1000 hours at rated power 90'/30' - ambient temp. 70 °C	± 1 % Contact res. variation: < 3 % Rn	± (3 % ± 5 Ω)	
Climatic Sequence	Phase A dry heat 125 °C Phase B damp heat Phase C cold - 55 °C Phase D damp heat 5 cycles	± 0.5 %	± 1 %	
Long Term Damp Heat	56 days	$\pm$ 0.5 % Dielectric strength: 1000 V <sub>RMS</sub> Insulation resistance: > $10^4  \text{M}\Omega$	± 1 %	
Rapid Temperature Change	5 cycles - 55 °C at + 125 °C	$\pm 0.5 \%$ $\frac{\Delta^{\prime}}{}$	$\frac{\sqrt{1-2}}{\sqrt{1-3}} \le \pm 1 \%$	
Shock	50 g at 11 m seconds 3 successive shocks in 3 directions	± 0.2 %	± 0.3 %	
Vibration	10 - 55 Hz 0.75 mm or 10 g during 6 hours	± 0.2 %	$\frac{\sqrt{1-2}}{\sqrt{1-3}} \le \pm 0.3 \%$	
Rotational Life	200 cycles	$\pm$ (2 % + 3 $\Omega$ ) Contact res. variation: < 2 % Rn		

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STANDARD RESISTANCE ELEMENT DATA				
STANDARD		TYPICAL		
RESISTANCE VALUES	MAX. POWER AT 70 °C	MAX. WORKING VOLTAGE	MAX. WIPER CUR.	TCR - 55 °C + 125 °C
Ω	W	٧	mA	ppm/°C
10	0.5	2.24	224	
22	0.5	3.32	151	
47	0.5	4.85	103	
100	0.5	7.07	71	
220	0.5	10.5	48	
470	0.5	15.3	33	
1K	0.5	22.4	22	
2K2	0.5	33.2	15	400
4K7	0.5	48.5	10	± 100
10K	0.5	70.7	7.1	
22K	0.5	105	4.8	
47K	0.5	153	3.3	
100K	0.5	224	2.2	
220K	0.28	250	1.1	
470K	0.13	250	0.5	
1M	0.06	250	0.3	

### **MARKING**

#### Printed:

- VISHAY trademark
- model
- ohmic value
- manufacturing date
- marking of terminal 3

#### **PACKAGING**

- In box of 200 pieces, code BO200
- In tube by 25 pieces, code "TU25"

ORDERING INFORMATION				
43P MODEL AND PIN STYLE	103 EIA RESISTANCE VALUE	T000 SPECIAL (omit if standard)	<b>BO200</b> PACKAGING	e3 LEAD FINISH
		T601 - Panel mount	on request: TU25	e3: pure Sn

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

## **Legal Disclaimer Notice**



Vishay

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