

43

# VISHAY

# 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 M $\Omega$ .

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

#### **FEATURES**

- · Panel mount, clear lid versions available
- · Chevron shaft for sealing and smooth consistent torque
- RoHS COMPLIANT
- · Solder terminations for improved reliability
- Multi-finger wiper for better C.R.V.



Tolerance unless otherwise specified ± 0.5

# Vishay Spectrol

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



ELECTRICAL SPECIFICATIONS			
Resistive Element		cermet	
Electrical Travel		15 turns ± 1	
Resistance Range		10 Ω to 2.2 MΩ	
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> ΜΩ	

#### **MECHANICAL SPECIFICATIONS**

Mechanical Travel	18 turns ± 5
Operating Torque (max. Ncm)	2
End Stop Torque	clutch action
Unit Weight (max. g)	1
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	TYPICAL VALUES AND DRIFTS		
TESTS	CONDITIONS	<u>−∆RT</u> (%)	<u>∆R1-2</u> R1-2		
Load Life	1000 hours at rated power 90'/30' - ambient temp. 70 °C	± 1 % Contact res. variation: < 3 % Rn	$\pm (3\% \pm 5\Omega)$		
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 RMS Insulation resistance: > 10 <sup>4</sup> M $\Omega$	±1%		
Rapid Temperature Change	5 cycles - 55 °C at + 125 °C	$\pm 0.5\%$ $\frac{\Delta}{2}$	$\frac{V_{1-2}}{V_{1-3}} \le \pm 1 \%$		
Shock	50 g at 11 m secs 3 successive shocks in 3 directions	± 0.2 %	± 0.3 %		
Vibration	10 - 55 Hz 0.75 mm or 10 g during 6 hours	$\pm 0.2\%$	$\frac{V_{1-2}}{V_{1-3}} \le \pm 0.3 \%$		
Rotational Life	200 cycles	± (2 % + 3 Ω) 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	V	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	100
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	<b>T000</b> SPECIAL (omit if standard)	BO200 PACKAGING	e3 LEAD FINISH
		T601 - Panel mount	on request: TU25	e3: pure Sn

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



Vishay

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