

## **Excellent Integrated System Limited**

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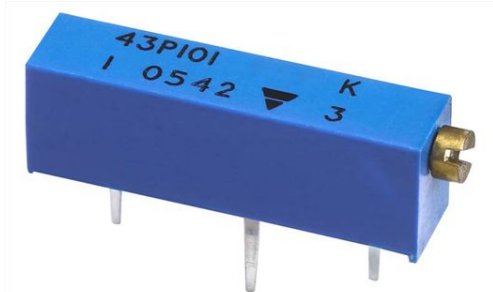
[Vishay Spectrol](#)  
[M43P102KB40](#)

For any questions, you can email us directly:

[sales@integrated-circuit.com](mailto:sales@integrated-circuit.com)



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



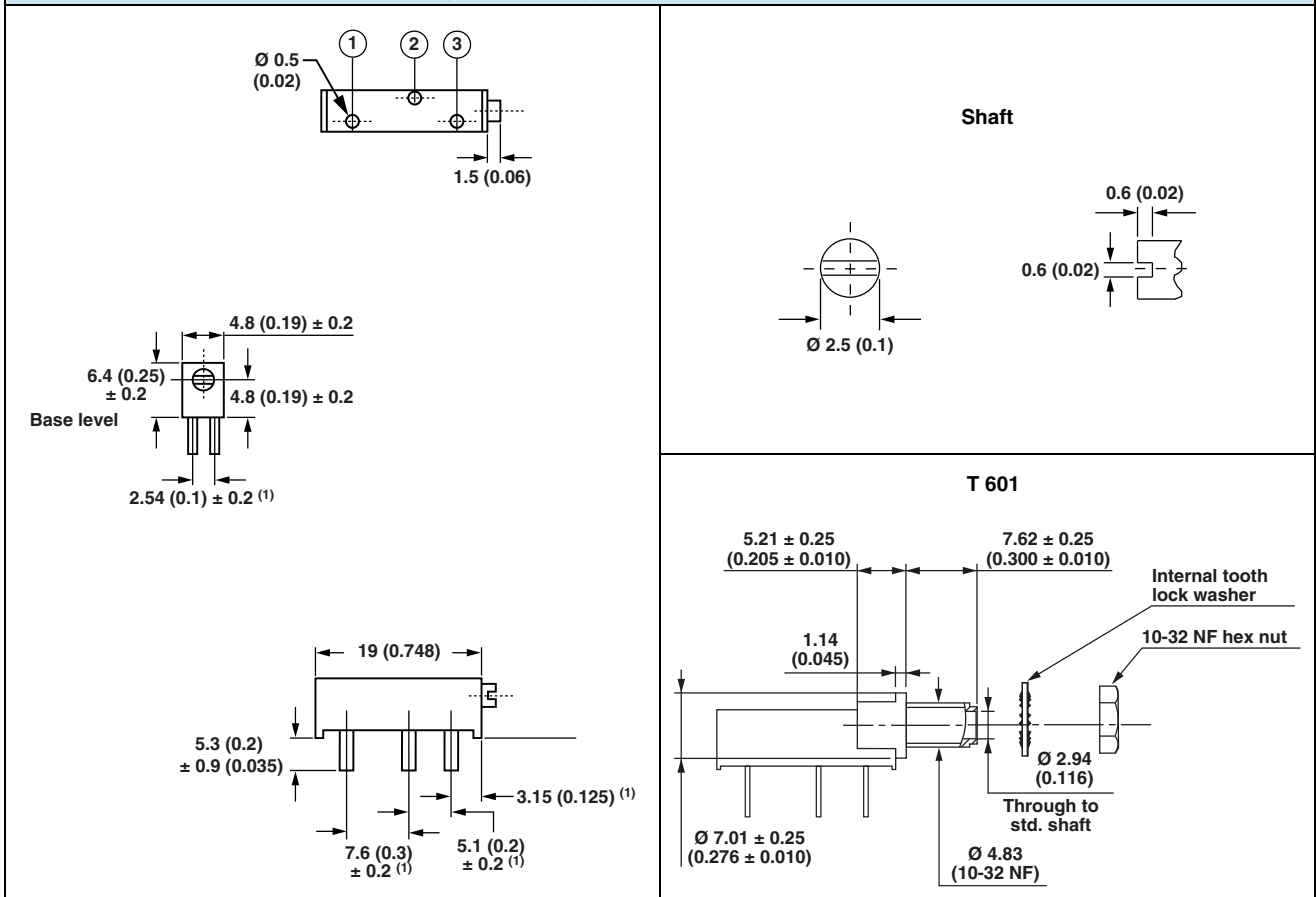
### FEATURES

- 0.75 W at 70 °C
- Wide ohmic value range (10 Ω to 5 MΩ)
- Panel mount available
- Multi-finger wiper for better C.R.V.
- Tests according to CECC 41000 or IEC 60393-1
- Material categorization: for definitions of compliance please see [www.vishay.com/doc?99912](http://www.vishay.com/doc?99912)



RoHS  
COMPLIANT

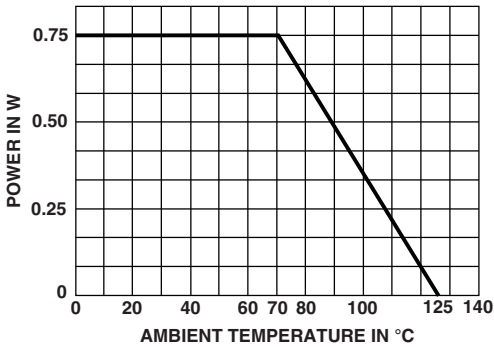
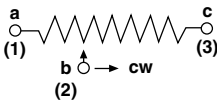
### DIMENSIONS in millimeters (inches) ± 0.5 mm (± 0.02")



**Note**

(1) To be measured at base level



ELECTRICAL SPECIFICATIONS	
Resistive element	Cermet
Electrical travel	15 turns $\pm$ 1
Resistance range	10 $\Omega$ to 5 M $\Omega$
Standard series E3	1 - 2 - 5
Tolerance	Standard $\pm$ 10 %
Power rating	Linear 0.75 W at +70 °C 
Circuit diagram	
Temperature coefficient	See Standard Resistance Element table
Limiting element voltage (linear law)	400 V
Contact resistance variation	1 % R <sub>n</sub> or 1 $\Omega$ max.
End resistance (typical)	1 % or 2 $\Omega$
Dielectric strength (RMS)	1000 V
Insulation resistance (500 V <sub>DC</sub> )	10 <sup>3</sup> M $\Omega$ min.

MECHANICAL SPECIFICATIONS	
Mechanical travel	18 turns $\pm$ 5
Operating torque (max. Ncm)	3.5
End stop torque	Clutch action
Net weight (max. g)	1.2
Wiper (actual travel)	Positioned at approx. 50 %
Terminals	Pure Sn (code e3)

ENVIRONMENTAL SPECIFICATIONS	
Temperature range	-55 °C to +125 °C
Climatic category	55/125/4
Sealing	Fully sealed - IP67



PERFORMANCES				
TESTS	CONDITIONS	TYPICAL VALUES AND DRIFTS		
		$\Delta R_T/R_T$ (%)	$\Delta V_{1-2}/V_{1-3}$ (%)	OTHER
Load life	1000 h at rated power 90'/30' - ambient temp. 70 °C	± 4 %	-	-
Humidity	4 days	± 3 %	-	Dielectric strength: 1000 V <sub>RMS</sub> Insulation resistance: > 20 MΩ
Rapid temperature change	5 cycles -55 °C to +125 °C	± 0.5 %	± 2 %	-
Shock	50 g at 11 ms 3 successive shocks in 3 directions	± 2 %	± 2 %	-
Vibration	10 Hz to 55 Hz 0.75 mm or 10 g during 6 h	± 2 %	± 2 %	-
Rotational life	200 cycles	± (3 % + 1 Ω)	-	Contact res. variation: < 1 % Rn

**Note**

- Nothing stated herein shall be construed as a guarantee of quality or durability

STANDARD RESISTANCE ELEMENT DATA				
STANDARD RESISTANCE VALUES	LINEAR LAW			TYPICAL TCR -55 °C +125 °C
	MAX. POWER AT 70 °C	MAX. WORKING VOLTAGE	MAX. WIPER CUR.	
Ω	W	V	mA	ppm/°C
10	0.75	2.74	274	± 100
20	0.75	3.87	194	
50	0.75	6.12	122	
100	0.75	8.66	87	
200	0.75	12.2	61	
500	0.75	19.4	39	
1K	0.75	27.4	27	
2K	0.75	38.7	19	
5K	0.75	61.2	12	
10K	0.75	86.6	8.7	
20K	0.75	122	6.1	
50K	0.75	194	3.9	
100K	0.75	274	2.7	
200K	0.75	387	1.9	
500K	0.32	400	0.8	
1M	0.16	400	0.4	
2M	0.08	400	0.2	
4M	0.03	400	0.08	

**PACKAGING**

- In box of 200 pieces code B40 (BO200)

On request:

- In box of 100 pieces code B30 (BO100)
- In tube of 25 pieces code T10 (TU25)

**MARKING**

- Vishay trademark
- Vishay part number or model, ohmic value code and tolerance code
- Manufacturing date
- Marking of terminals 1 and/or 3



ORDERING INFORMATION (Part Number)														
M	4	3	P	1	0	3	K	B	4	0	T	6	0	1
Model	STYLE		OHMIC VALUE		TOLERANCE		PACKAGING			SPECIAL NUMBER				
M43	P		From 100 Ω to 5 MΩ 103 = 10 kΩ		K = 10 %		B40 = box 200 pieces On request: B30 = box 100 pieces T10 = tube 25 pieces			(If applicable) Given by Vishay for custom design				

DESCRIPTION (for information only)						
43	P	10K	10 %	T601	BO100	e3
MODEL	STYLE	VALUE	TOLERANCE	SPECIAL	PACKAGING	LEAD FINISH

RELATED DOCUMENTS	
<b>APPLICATION NOTES</b>	
Potentiometers and Trimmers	<a href="http://www.vishay.com/doc?51001">www.vishay.com/doc?51001</a>
Guidelines for Vishay Sfernice Resistive and Inductive Components	<a href="http://www.vishay.com/doc?52029">www.vishay.com/doc?52029</a>



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