

## 1/4" Square Single-Turn Cermet Sealed Trimmer



### **FEATURES**

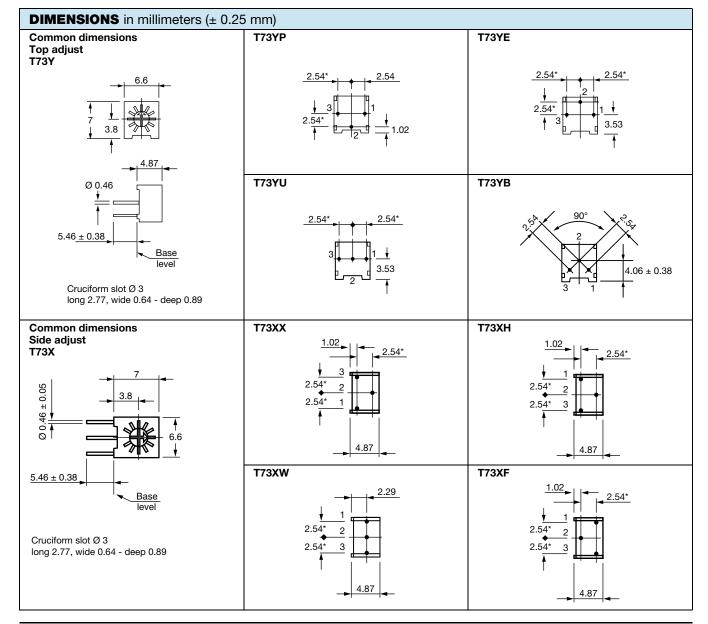
- · Industrial grade
- · Fully sealed
- Miniature package



- Rotor designed for automatic machine adjust interface
- Withstands harsh environments and immersion cleaning process
- Tests according to CECC 41000 or IEC 60393-1
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912

#### **LINKS TO ADDITIONAL RESOURCES**





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Resistive element	Cermet		
Electrical travel	240° nominal		
Resistance range	10 $\Omega$ to 2 M $\Omega$		
Standard series	1 - 2 - 5		
Tolerance standard	10 %		
linear	0.5 W at +70 °C		
Power rating	0.50 0.25 0.25 0.25 0.25 0.25 0.25 0.25		
Circuit diagram	$ \begin{array}{c} a \\ O \\ (1) \end{array} $ $ \begin{array}{c} b \\ O \\ \longrightarrow \end{array} $ $ \begin{array}{c} c \\ (3) \end{array} $ $ \begin{array}{c} c \\ (3) \end{array} $		
Temperature coefficient	± 100 ppm/°C		
Limiting element voltage	300 V		
Contact resistance variation	1 % Rn or 3 $\Omega$ max. whichever is greater		
Absolute minimum resistance	1 % Rn or 2 $\Omega$ max. whichever is greater		
Adjustability	± 0.05 % voltage ± 0.15 % resistance		
Resolution	infinite		
Insulation resistance (500 V <sub>DC</sub> )	$10^3~\mathrm{M}\Omega$ minimum		
Dielectric strength	900 V <sub>AC</sub> sea level 350 V <sub>AC</sub> 80 000 feet		

MECHANICAL SPECIFICATIONS		
Mechanical travel	270°	
Operating torque (max. Ncm)	2.1	
End stop torque (max. Ncm)	4.9	
Unit weight (max. g)	0.6	
Terminals	Pure Sn (code e3)	

ENVIRONMENTAL SPECIFICATIONS			
Temperature range	-55 °C to +125 °C		
Climatic category	55/100/56		
Sealing	Fully sealed - IP67		

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PERFORMANCES						
TESTS	CONDITIONS	TYPICAL VALUES AND DRIFTS				
Load life	1000 h - 0.5 W at +70 °C	$\Delta R_{T}/R_{T}$ (%)	CRV < 3 Ω or 3 %			
Shock	1000 H - 0.5 W at +70 C	3 %	whichever is greater			
Vibration	100 g	± 1 %	ΔV/V ≤ ± 1 %			
Humidity	30 g	± 1 %	ΔV/V ≤ ± 1 %			
Rotational life	MIL-STD202 method 103 - 96 h	± 2 %	i.R. 10 MΩ			
Load life	oad life 200 cycles		CRV < 3 $\Omega$ or 3 % whichever is greater			

#### Note

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

STANDARD RESISTANCE VALUES	LINEAR LAW			TYPICAL
	MAX. POWER AT 70 °C	MAX. WORKING VOLTAGE	MAX. WIPER CURRENT	TCR -55 °C +125 °C
Ω	W	٧	mA	ppm/°C
10	0.50	2.2	224	
20	0.50	3.2	160	
50	0.50	5.0	100	
100	0.50	7.1	70	
200	0.50	10.0	50	
500	0.50	15.8	32	
1K	0.50	22.4	22	
2K	0.50	31.6	16	
5K	0.50	50	10	± 100
10K	0.50	70.7	7.1	
20K	0.50	100	5.0	
50K	0.50	158.1	3.2	
100K	0.50	223.6	2.2	
200K	0.45	300	1.5	
500K	0.18	300	0.60	
1M	0.09	300	0.30	
2M	0.05	300	0.15	

### **MARKING**

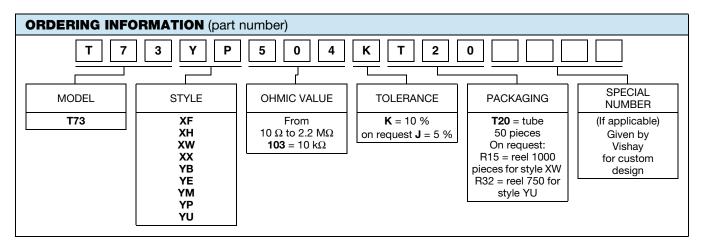
- Vishay trademark
- Resistance code
- Terminal numbers
- Date code
- Model

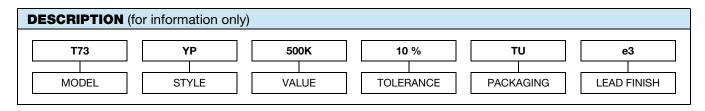
#### **PACKAGING**

- In tube of 50 pieces code T20 (TU50)
- On request: tape and reel for style YU, code R32 (TR750) and style XW code R15 (TR1000)



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RELATED DOCUMENTS				
APPLICATION NOTES				
Potentiometers and Trimmers	www.vishay.com/doc?51001			
Guidelines for Vishay Sfernice Resistive and Inductive Components	www.vishay.com/doc?52029			



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