

# 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](http://www.vishay.com/doc?99912)


**RoHS**  
COMPLIANT

## DESIGN SUPPORT TOOLS

[click logo to get started](#)
**3D**  
Models  
Available

DIMENSIONS in millimeters ( $\pm 0.25$ mm)		
<b>Common dimensions</b> <b>Top adjust</b> <b>T73Y</b> <p>Cruciform slot <math>\text{Ø } 3</math> long 2.77, wide 0.64 - deep 0.89</p>	<b>T73YP</b>	<b>T73YE</b>
	<b>T73YU</b>	<b>T73YB</b>
<b>Common dimensions</b> <b>Side adjust</b> <b>T73X</b> <p>Cruciform slot <math>\text{Ø } 3</math> long 2.77, wide 0.64 - deep 0.89</p>	<b>T73XX</b>	<b>T73XH</b>
	<b>T73XW</b>	<b>T73XF</b>

<b>ELECTRICAL SPECIFICATIONS</b>	
Resistive element	Cermet
Electrical travel	240° nominal
Resistance range	10 Ω to 2 MΩ
Standard series	1 - 2 - 5
Tolerance standard	10 %
Power rating	linear 0.5 W at +70 °C 
Circuit diagram	
Temperature coefficient	± 100 ppm/°C
Limiting element voltage	300 V
Contact resistance variation	1 % R <sub>n</sub> or 3 Ω max. whichever is greater
Absolute minimum resistance	1 % R <sub>n</sub> or 2 Ω max. whichever is greater
Adjustability	± 0.05 % voltage ± 0.15 % resistance
Resolution	infinite
Insulation resistance (500 V <sub>DC</sub> )	10 <sup>3</sup> MΩ minimum
Dielectric strength	900 V <sub>AC</sub> sea level 350 V <sub>AC</sub> 80 000 feet

<b>MECHANICAL SPECIFICATIONS</b>	
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)

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



PERFORMANCES			
TESTS	CONDITIONS	TYPICAL VALUES AND DRIFTS	
Load life	1000 h - 0.5 W at +70 °C	$\Delta R_T/R_T$ (%)	CRV < 3 $\Omega$ or 3 % whichever is greater
Shock		3 %	
Vibration	100 g	$\pm 1$ %	$\Delta V/V \leq \pm 1$ %
Humidity	30 g	$\pm 1$ %	$\Delta V/V \leq \pm 1$ %
Rotational life	MIL-STD202 method 103 - 96 h	$\pm 2$ %	i.R. 10 M $\Omega$
Load life	200 cycles	$\pm 4$ %	CRV < 3 $\Omega$ or 3 % whichever is greater

**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 ppm/°C
	MAX. POWER AT 70 °C	MAX. WORKING VOLTAGE	MAX. WIPER CURRENT	
$\Omega$	W	V	mA	
10	0.50	2.2	224	± 100
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	
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)



ORDERING INFORMATION (part number)													
T	7	3	Y	P	5	0	4	K	T	2	0		
MODEL	STYLE			OHMIC VALUE			TOLERANCE		PACKAGING			SPECIAL NUMBER	
T73	XF XH XW XX YB YE YM YP YU			From 10 Ω to 2.2 MΩ <b>103 = 10 kΩ</b>			<b>K = 10 %</b> on request <b>J = 5 %</b>		<b>T20 = tube</b> 50 pieces On request: R15 = reel 1000 pieces for style XW R32 = reel 750 for style YU			(If applicable) Given by Vishay for custom design	

DESCRIPTION (for information only)					
T73	YP	500K	10 %	TU	e3
MODEL	STYLE	VALUE	TOLERANCE	PACKAGING	LEAD FINISH

RELATED DOCUMENTS	
APPLICATION NOTES	
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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