

# Resistors & Potentiometers

## Piher\_Single-Turn Potentiometer

Detailed product specifications are available on: [us.100y.com.tw](http://us.100y.com.tw)



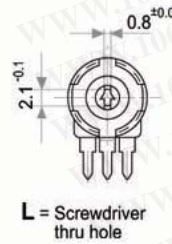
### FEATURES

- Cermet resistive element
- Dust proof enclosure
- Plastic material according to UL94V-0
- Also upon request:
  - Alumina substrate
  - Wiper positioned at 50% or fully clockwise
  - Supplied in magazines for automatic insertion
- Long life model for low cost control pot. Applications
- Special tapers
- Mechanical detents
- Low & extra low torque versions
- Available as SPDT switch
- Laser trimming for tighter tolerances



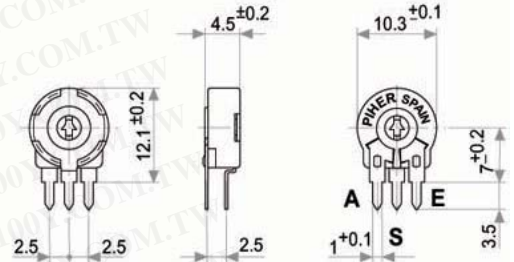
### ROTORS

Without shaft



### MOUNTING METHODS

h = vertical mount – horizontal adjust



MECHANICAL SPECIFICATIONS	
Mechanical rotation angle	235° ± 5°
Electrical rotation angle	220° ± 20°
Torque	0.4 to 2 Ncm. (0.6 to 2.7 in-oz)
Stop torque	>5 Ncm. (>7 in-oz)

ELECTRICAL SPECIFICATIONS	
Range of values (*)	100Ω ≤ Rn ≤ 5M (Decad, 1. 0-2. 0-2. 2-2. 5-4. 7-5. 0)
Tolerance (*)	100Ω ≤ Rn ≤ 1MΩ ±20% 1MΩ < Rn ≤ 5MΩ ±30%
Max. voltage	200VDC (lin) 100VDC (no lin)
Residual resistance	≤5, 10 <sup>-3</sup> Rn (2Ω min. )
Equivalent noise resistance	≤3% Rn (3Ω min. )
Operating temperature	-40°C + 90°C (-40°F + 194°F)

Part No.	Product No.	Manufacturer	Description	Resistance data(Ω)	Tolerance(±)
41416	PTC10LH01-103A2020	PIHER	Carbon Potentiometer PT10LH01-103A	10KΩ	±20%

## Surface Mount Cermet Trimmers

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### Features

- Surface Mount 4 mm Square / Multiturn Cermet / Industrial / Sealed
- Sealed to withstand board wash processing
- Pick and place centering design, with flush adjustment
- 4mm design meets EIA/EIAJ/IPC/VECISMD standard trimmer footprint
- Low CRV - 1 %
- DESC selected material drawing #92021



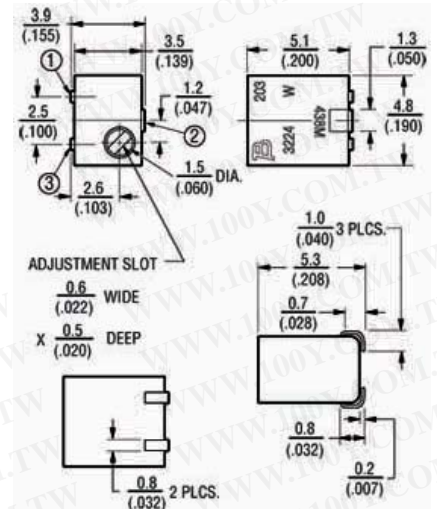
Electrical Characteristics	
Standard Resistance Range	10 to 2 megohm (see standard resistance table)
Resistance Tolerance	±10 % std.
Absolute Minimum Resistance	1 % or 2.0 ohms (whichever is greater)
Contact Resistance Variation	1 % or 3 ohms max.
Resolution	Essentially Infinite
Insulation Resistance	500 vdc. 100 megohms min.
Dielectric Strength	Sea Level 600 vac (1 minute)
Adjustment Angle	11 turns nom.

Environmental Characteristics	
Power Rating	85 °C 0.25 watt 150 °C 0 watt
Temperature Range	-65 °C to +150 °C
Temperature Coefficient	±100 ppm/°C
Humidity	MIL-STD 202 Method 106 TRS ±2 %; IR 10 megohms
Vibration	20 G TRS ±1 %; VRS ±1 %
Shock	100 G TRS ±1 %; VRS ±1 %
Load Life	@ 85 °C rated power 1,000 hours
TRS	3 ohms or 3 % (whichever is greater)
Rotational Cycling	200 cycles
Thermal Shock	5 cycles TRS ±2 %; VRS ±1 %

### Physical Characteristics

Mechanical Stop	Wiper idles
Torque	180 g-cm max.
Weight	Approximately 0.01 oz.
Marking	Manufacturer's code, resistance code and date code
Solderability	Per MIL-STD-202, Method 208
Wiper	50 % (Actual TR) ±10 %
Flammability	UL94V0
Pushover Strength	J, G 4.4 lbs. W, X 1 lb.
Adjustment Tool	H-91

### 3224W Top Adjust



Part No.	Product No.	Manufacturer	Description	Resistance(Ω)	Tolerance(±)
36889	3224W-1-101E	Bourns	Bourns SMD 4mm 11Turns Multi-Turn Trimmer Potentiometer-Square Cermet Sealed	100Ω	±10%
36895	3224W-1-102E	Bourns	Bourns SMD 4mm 11Turns Multi-Turn Trimmer Potentiometer-Square Cermet Sealed	1K	±10%
29138	3224W-1-103E	Bourns	Bourns SMD 4mm 11Turns Multi-Turn Trimmer Potentiometer-Square Cermet Sealed	10KΩ	±10%

