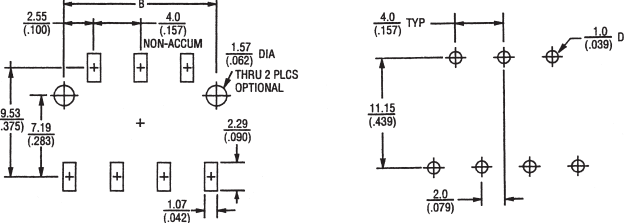


RECOMMENDED PWB MOUNTING PATTERN (FEMALE)



RECOMMENDED PWB MOUNTING PATTERN (MALE)

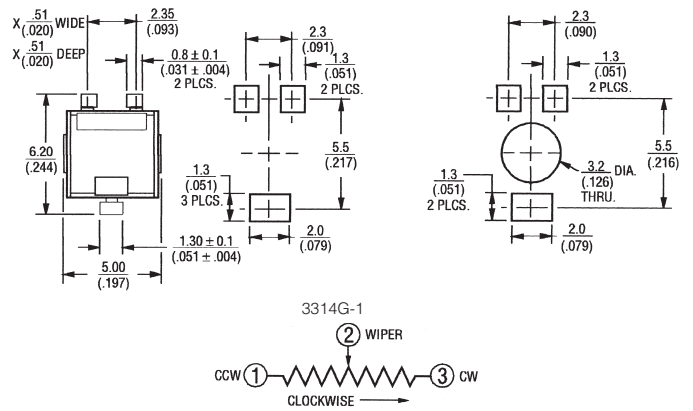
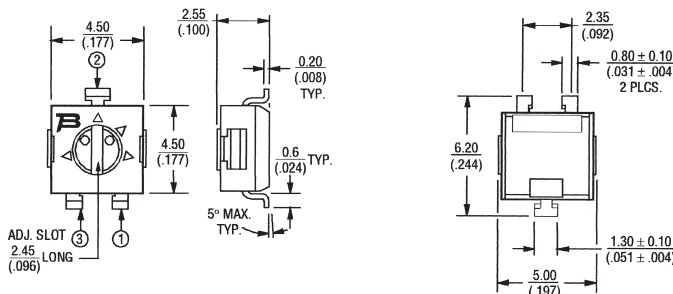
BOURNS MODEL 70AD SERIES MODULAR CONTACTS

Rechargeable battery-pack applications. 3 amp connectors. Matching male and female units. SMD and thru-hole lead styles. Low profile. Wiping action—gold contact surfaces. Patented double cantilever spring action. High contact force, low contact force. Durability 5,000 cycles max. Pick and place compatible. IR and vapor phase compatible. **Dielectric Withstanding Voltage:** $\geq 500V_{rms}$. **Insulation Resistance:** 10,000 megohms. **Operating Temperature:** $-55^{\circ}C$ to $+125^{\circ}C$.

DIMENSIONS TABLE

No. of Contacts	Dim. B	Dim. C
MALE		
3	9.11 (.359)	—
4	13.11 (.516)	—
FEMALE		
3	8.0 (.315)	11.0 (.433)
4	12.0 (.472)	15.0 (.591)

Cat. No.	Conductors	Style	Net Price Each	
			1-9	10-Up
70ADJ-3-ML1	3	Male/SMD	\$1.82	\$1.46
70ADJ-3-FL1	3	Female/SMD	1.62	1.30
70ADH-3-ML1	3	Male/Thru-Hole	1.80	1.50
70ADH-3-FL1	3	Female/Thru-Hole	1.60	1.30
70ADJ-4-ML1	4	Male/SMD	2.27	1.82
70ADJ-4-FL1	4	Female/SMD	2.05	1.64
70ADH-4-ML1	4	Male/Thru-Hole	2.27	1.82
70ADH-4-FL1	4	Female/Thru-Hole	2.05	1.64



BOURNS 3314 SERIES 4MM SURFACE MOUNT TRIMMER

SMD 4MM SQUARE/SINGLE-TURN CERMET/INDUSTRIAL/SEALED

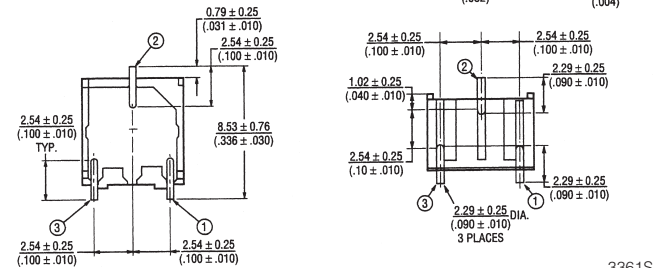
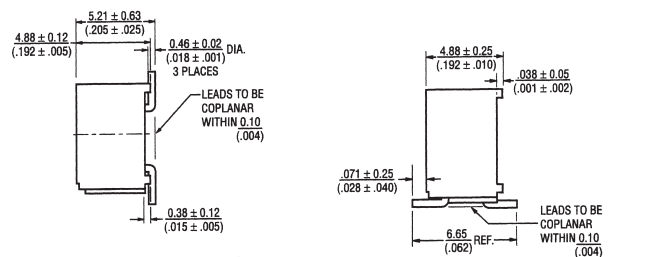
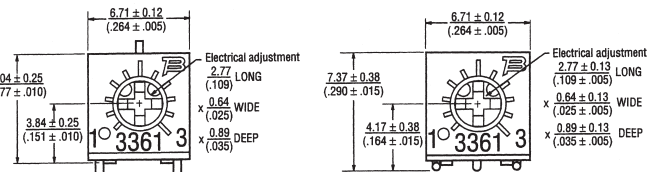
Sealed to withstand board wash processing. **Resistance Tolerance:** $\pm 20\%$ standard. **CRV:** 1% or 3Ω max. **Resolution:** Infinite. **Insulation Resistance:** 400 VDC, 100 M Ω min. **Adjustment Angle:** 210° nom. **Power Rating (300V max.):** $70^{\circ}C$: 0.25W, $125^{\circ}C$: 0W. **Temperature Range:** $-55^{\circ}C$ to $125^{\circ}C$. **Temperature Coefficient:** $\pm 100ppm/^{\circ}C$. **Vibration:** 20G TRS $\pm 1\%$, VRS $\pm 1\%$. **Shock:** 100G TRS $\pm 1\%$, VRS $\pm 1\%$. **Load Life (@ $70^{\circ}C$ Rated Power 1000 Hours):** TRS 3%. **Rotational Life:** 100 cycles, TRS 3%. **Thermal Shock:** 5 cycles, TRS $\pm 2\%$, VRS $\pm 1\%$. **Torque:** 180g-cm typical. **Stop Strength:** 300g-cm typical. **Adjustment Tool:** H-90.

STANDARD RESISTANCE VALUES

Code	(Value)	Code	(Value)	Code	(Value)	Code	(Value)
101	(100R)	202	(2K)	503	(50K)	105	(1M)
201	(200R)	502	(5K)	104	(100K)	205	(2M)
501	(500R)	103	(10K)	204	(200K)		
102	(1K)	203	(20K)	504	(500K)		

Cat. No.	Ohms $\pm 10\%$	Type	Net Price Each	
			1-99	100-Up
3314G-1-XXXXE	See Table Above	Side Adjust	\$1.89	\$1.25
3314J-1-XXXXE	See Table Above	Top Adjust	1.89	1.25

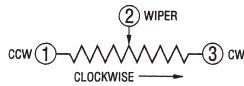
NOTE: Replace XXX in Cat. No. with 3-digit code specifying the desired resistance value.



3361P

3361S

Continued on next page...



BOURNS 3361 SERIES 1/4" SURFACE MOUNT TRIMMER SMD 1/4" SQUARE/SINGLE-TURN/CERMET/INDUSTRIAL/SEALED

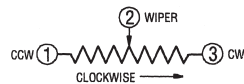
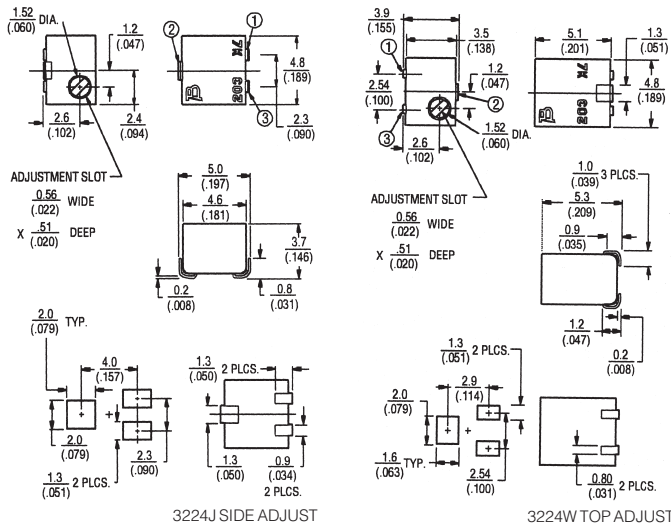
Sealed to withstand board wash processing. **Resistance Tolerance:** ±10% standard. **Absolute Minimum Resistance:** 1% or 2Ω (whichever is greater). **CRV:** 1% or 3Ω max. **Resolution:** Infinite. **Insulation Resistance:** 500 VDC, 1000 MΩ min. **Adjustment Angle:** 240° nom. **Power Rating (300V max.):** 70°C: 0.5W, 125°C: 0W. **Temperature Range:** -55°C to 125°C. **Temperature Coefficient:** ±100ppm/°C. **Vibration:** 30G TRS ±1%, VRS ±1%. **Shock:** 100G TRS ±1%, VRS ±1%. **Load Life (@ 70°C Rated Power 1000 Hours):** TRS 3Ω or 3% (whichever is greater). **Rotational Life:** 200 cycles. **Torque:** 3.0 oz-in max. **Stop Strength:** 7.0 oz-in min. **Adjustment Tool:** H-90.

STANDARD RESISTANCE VALUES

Code	(Value)	Code	(Value)	Code	(Value)	Code	(Value)
101	(100R)	102	(1K)	103	(10K)	104	(100K)
201	(200R)	202	(2K)	203	(20K)		
501	(500R)	502	(5K)	503	(50K)		

Cat. No.	Ohms ±10%	Type	Net Price Each	
			1-99	100-Up
3361P-1-XXXX	See Table Above	Top Adjust	\$1.30	\$1.06
3361S-1-XXXX	See Table Above	Top Adjust	1.30	1.06

NOTE: Replace XXX in Cat. No. with 3-digit code specifying the desired resistance value. For ROHS/Lead free add suffix **LF** to Cat. No.



BOURNS 3224 SERIES 4MM SURFACE MOUNT TRIMMER SMD 4MM SQUARE/11 TURN CERMET/INDUSTRIAL/SEALED

Sealed to withstand board wash processing. Pick and place centering design, with flush adjustment. **Resistance Tolerance:** ±10% standard. **Absolute Minimum Resistance:** 1% or 2Ω (whichever is greater). **CRV:** 1% or 3Ω max. **Resolution:** Infinite. **Insulation Resistance:** 500 VDC, 1000 MΩ min. **Adjustment Angle:** 11 turns nom. **Power Rating (300V max.):** 85°C: 0.25W, 150°C: 0W. **Temperature Range:** -65°C to 150°C. **Temperature Coefficient:** ±100ppm/°C. **Vibration:** 20G TRS ±1%, VRS ±1%. **Shock:** 100G TRS ±1%, VRS ±1%. **Load Life (@ 85°C Rated Power 1000 Hours):** TRS 3Ω or 3% (whichever is greater). **Rotational Life:** 200 cycles. **Thermal Shock:** 5 cycles, TRS ±2%, VRS ±1%. **Torque:** 180g-cm max. **Mechanical Stop:** Wiper idles. **Adjustment Tool:** H-91.

STANDARD RESISTANCE VALUES

Code	(Value)	Code	(Value)	Code	(Value)	Code	(Value)
101	(100R)	102	(1K)	103	(10K)	104	(100K)
201	(200R)	202	(2K)	203	(20K)		
501	(500R)	502	(5K)	503	(50K)		

Cat. No.	Ohm. ±10%	Type	Net Price Each	
			1-99	100-Up
3224J-1-XXXE	See Table Above	Side Adjust	\$5.27	\$4.23
3224W-1-XXXE	See Table Above	Top Adjust	5.27	4.23

NOTE: Replace XXX in Cat. No. with 3-digit code specifying the desired resistance value.



4MM SURFACE MOUNT TRIMMER 5 TURN ADJUSTMENT, CERMET ELEMENT

FEATURES:

- Sealed to withstand board wash processing
- Pick and place centering design, with flush adjustment
- 4mm design meets EIA/EIAJ/IPC/VRCI SMD standard trimmer footprint
- Top and side adjust styles
- J-hook, and gull-wing
- Patent #5047746 advanced drive/wiper mechanism

ELECTRICAL CHARACTERISTICS:

Standard Resistance Range: 10 to 2 megohm
Resistance Tolerance: ±10% std.
Absolute Minimum Resistance: 1% or 2.0 ohms (whichever is greater)
Contact Resistance Variation: 3% or 3 ohms max.
Resolution: Essentially Infinite
Insulation Resistance: 500 vdc, 100 megohms min.
Dielectric Strength Sea Level: 600 vac (1 minute)
Adjustment Angle: 5 turns nom.

ENVIRONMENTAL CHARACTERISTICS:

Power Rating (300 volts max.): 85°C: 0.25 watt
 150°C: 0 watt
Temperature Range: -65°C to +150°C
Temperature Coefficient: ±100ppm/°C
Humidity: MIL-STD-202 Method 106 TRS ±2%; IR 10 Megohms
Vibration: 20G TRS ±1%; VRS ±1%
Shock: 100G 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 TRS 3 ohms or 3% (whichever is greater)
Thermal Shock: 5 cycles TRS ±2%; VRS ±1%

PHYSICAL CHARACTERISTICS:

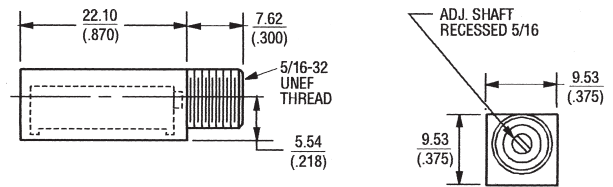
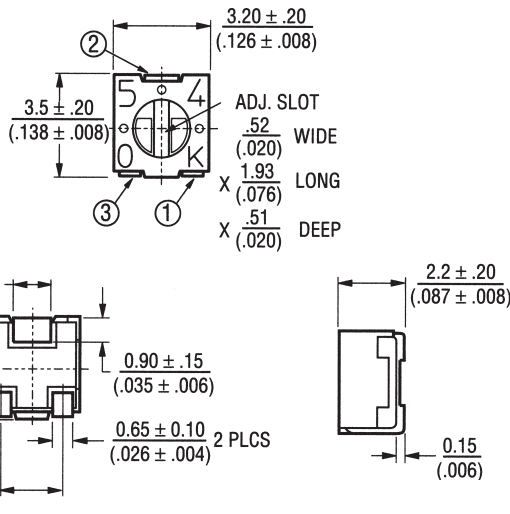
Mechanical Stop: Wiper idles
Torque: 180g-cm max.
Weight: Approximately 0.01 oz.
Marking: Manufacturer's code, resistance code and date code
Solderability: Per MIL-STD-202, Method 208
Wiper: Set at 50% nominal
Flammability: UL94V0

STANDARD RESISTANCE VALUES

Code	(Value)	Code	(Value)	Code	(Value)	Code	(Value)
101	(100R)	102	(1K)	103	(10K)	104	(100K)
201	(200R)	202	(2K)	203	(20K)		
501	(500R)	502	(5K)	503	(50K)		

Cat. No.	Ohms ±10%	Type	Net Price Each	
			1-99	100-Up
3214W-1-XXXE	See Table Above	Top Adjust	\$3.25	\$2.61
3214J-1-XXXE	See Table Above	Side Adjust	3.25	2.61

NOTE: Replace XXX in Cat. No. with 3-digit code specifying the desired resistance value.



BOURNS TRIMMER ACCESSORIES/TOOLS TRIMPOT PANEL MOUNTING KIT H-83P

Made of flame retardant plastic, the H-83P panel mounting bracket accommodates different standard Bourns Panel Mount Trimpot® potentiometers: 3006P.

Cat. No.	Description	Net Price
H-83P	Panel mount kit includes: bracket, lockwasher, and mounting nut	\$2.03
H-90	Alignment tool	2.03
H-91	Alignment tool	2.03

BOURNS 3313 SERIES 3MM SURFACE MOUNT TRIMMER SMD 3MM SQUARE/SINGLE-TURN CERMET/INDUSTRIAL/SEALED

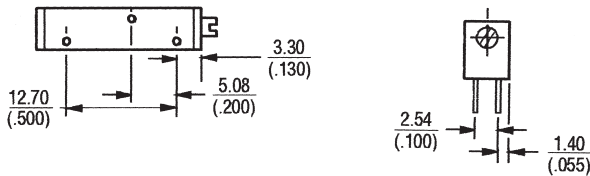
Sealed to withstand board wash processing. Pick and place centering design, with flush adjustment. **Resistance Tolerance:** $\pm 20\%$ standard. **CRV:** 3% or 3Ω max. **Resolution:** Infinite. **Insulation Resistance:** 500 VDC, 100 MΩ min. **Adjustment Angle:** 220° nom. **Power Rating (200V max.):** 70°C: 125W, 120°C: 0W. **Temperature Range:** -55°C to 125°C. **Temperature Coefficient:** $\leq 100\Omega \pm 100\text{ppm}/^\circ\text{C}$; $> 100\Omega \pm 100\text{ppm}/^\circ\text{C}$. **Vibration:** 20G TRS $\pm 1\%$, VRS $\pm 1\%$. **Shock:** 100G TRS $\pm 1\%$, VRS $\pm 1\%$. **Load Life (@ 70°C Rated Power 1000 Hours):** TRS 3%. **Rotational Life:** 100 cycles. **Thermal Shock:** 5 cycles, TRS $\pm 2\%$; VRS $\pm 1\%$. **Torque:** 50g-cm max. **Stop Strength:** 200g-cm min. **Adjustment Tool:** H-91.

STANDARD RESISTANCE VALUES

Code	(Value)	Code	(Value)	Code	(Value)	Code	(Value)
101	(100R)	102	(1K)	103	(10K)	104	(100K)
201	(200R)	202	(2K)	203	(20K)		
501	(500R)	502	(5K)	503	(50K)		

Cat. No.	Ohms $\pm 10\%$	Type	Net Price Each	
			1-99	100-Up
3313J-1-XXXE	See Table Above	Top Adjust	\$1.89	\$1.25

NOTE: Replace XXX in Cat. No. with 3-digit code specifying the desired resistance value.



BOURNS TRIMPOT® 3006 SERIES 3/4" TRIMMER RECTANGULAR/MULTI-TURN (15) CERMET/INDUSTRIAL/SEALED

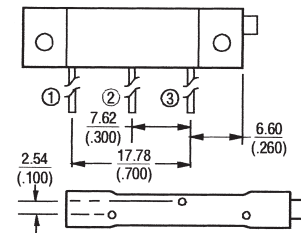
Low profile. Sealed to MIL-R-22097 std. **Resistance Tolerance:** $\pm 10\%$ standard. **CRV:** 1% or 2Ω max. **Resolution:** Infinite. **Insulation Resistance:** 500 VDC, 1000 MΩ min. **Adjustment Angle:** 15 turns nom. **Power Rating (400V max.):** 70°C: 0.75W, 150°C: 0W. **Temperature Range:** -55°C to 125°C. **Temperature Coefficient:** $\pm 100\text{ppm}/^\circ\text{C}$. **Load Life:** 1,000 hours 0.75W @ 70°C (4% ΔTR). **Rotational Life:** 200 cycles. **Torque:** 5.0 oz-in max. **Mechanical Stops:** Wiper idles. **Adjustment Tool:** H-90.

STANDARD RESISTANCE VALUES

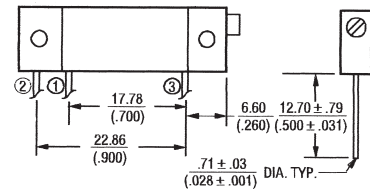
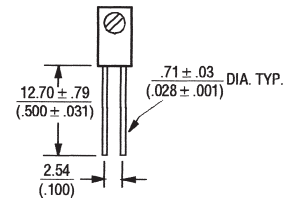
Code	(Value)	Code	(Value)	Code	(Value)	Code	(Value)
100	(10R)	201	(200R)	502	(5K)	503	(50K)
200	(20R)	501	(500R)	103	(10K)	104	(100K)
500	(50R)	102	(1K)	203	(20K)	204	(200K)
101	(100R)	202	(2K)	253	(50K)	504	(500K)

Cat. No.	Ohms $\pm 10\%$	Net Price Each	
		1-99	100-Up
3006P-1-XXX	See Table Above	\$1.99	\$1.31

NOTE: Replace XXX in Cat. No. with 3-digit code specifying the desired resistance value.



3059Y



3059P

BOURNS MODEL 3059 22 TURN CERMET POTENTIOMETER

A 1¼" long 22 turn at 5.0 oz. inch maximum torque potentiometer with idling wiper at the mechanical stops. These controls cover a resistance range of 10 to 2 meg ohms $\pm 10\%$ tolerance, and have an absolute minimum resistance of 2 ohms maximum with a contact resistance variation of only 1 ohm or 1.0% (whichever is greater). These infinite Cermet elements have a high power dissipation of 1.0 Watt at 70°C and a high operating temperature of +150°C. They maintain a low temperature coefficient of ± 100 PPM/°C over the entire resistance and temperature range and have a voltage adjustability of $\pm 0.01\%$ and a resistance adjustability of $\pm 0.05\%$. These controls are supplied with either solderable printed circuit pins or 6"-7 strand 38AWG insulated wire leads.

STANDARD RESISTANCE VALUES

Code	(Value)	Code	(Value)	Code	(Value)	Code	(Value)
101	(100R)	102	(1K)	103	(10K)	104	(100K)
201	(200R)	202	(2K)	203	(20K)		

Cat. No.	Ohms $\pm 10\%$	Net Price Each	
		1-99	100-Up
3059P-1-XXX	See Table Above	\$7.45	\$4.92
3059Y-1-XXX	See Table Above	7.45	4.92

NOTE: Replace XXX in Cat. No. with 3-digit code specifying the desired resistance value.