Panasonic Thumbwheel Potentiometers

Resistance Code Chart
Code (Resistance Value)

Code (Value)	Code (Value)
502 (5K)	203 (20K)
103 (10K)	503 (50K)

Specifications: • Resistance Range: 5KΩ through 50KΩ • Tolerance: ±20% • Power Rating: B taper - .03W, All others .01W • Voltage Rating: 50VAC/20VDC • Rotation Angle: 260° ±10° • Life: 10,000 turns minimum

Fig.	Taper	Center Detent	Digi-Key Part No.	Pricing 1	10	100	1,000	Panasonic* Part No.
1	A	N	P4A9□□□-ND	2.07	17.25	129.38	954.50	EVL-HFAA01A□□
	B	N	P4B0□□□-ND	2.07	17.25	129.38	954.50	EVL-HFAA01B□□
2	A	N	P4C1□□□-ND	2.07	17.26	129.42	954.83	EVL-HFAA06A□□
	B	N	P4D2□□□-ND◆	2.07	17.26	129.42	954.83	EVL-HFAA06B□□
1	A	Y	P4E3□□□-ND	2.32	19.32	144.90	1069.04	EVL-HFKA01A□□
	B	Y	P4F4□□□-ND	2.32	19.32	144.90	1069.04	EVL-HFKA01B□□
3	A	N	P4K9□□□-ND◆	2.07	17.25	129.38	954.50	EVL-HFAA05A□□
	B	N	P4L0□□□-ND◆	2.07	17.25	129.38	954.50	EVL-HFAA05B□□
3	A	Y	P4M1□□□-ND◆	2.32	19.32	144.90	1069.04	EVL-HFKA05A□□
	B	Y	P4N2□□□-ND◆	2.32	19.32	144.90	1069.04	EVL-HFKA05B□□

For complete number, substitute corresponding code (from chart above) for □□□.
* Call Digi-Key for help in assembling manufacturer part number. ◆ ***RoHS Compliant***

Specifications: • Tolerance: ±30% • Power Rating: .01W • Rotation Angle: 270°±5° • Life: P4G5102-ND 5,000 turns minimum, All others 10,000 turns minimum • No center detent

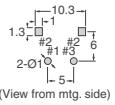
Fig.	Dual Taper	Rated Voltage	Resistance (Ω)	Digi-Key Part No.	Pricing 1	10	100	Tape & Reel † Qty.	Pricing	Panasonic Part No.
4	B/B	20VAC	50K	P4J8503CT-ND◆	1.37	11.40	104.83	800	547.20	EVU-TUAB16B54
5	C/C	22VAC	50K	P4I7503CT-ND	.98	8.15	74.96	1,200	489.00/M	EVU-TUHB07C54
6	A/A	0.5VAC	1K	P4G5102-ND	.96	8.00	60.01	—	—	EVU-TW1B24A13
7	C/C	10VAC	10K	P4H6103-ND◆	.96	8.00	60.01	—	—	EVU-TW7B45C14

† For Tape and Reel part number, change CT-ND to TR-ND. ◆ ***RoHS Compliant***

Fig. 1

Fig. 2

Footprint Applies to both Fig. 1 and 2



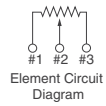


Fig. 3

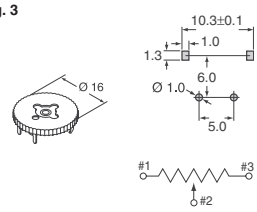


Fig. 4

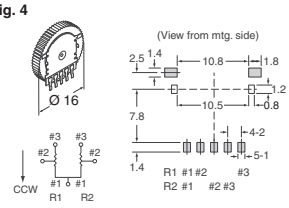


Fig. 5

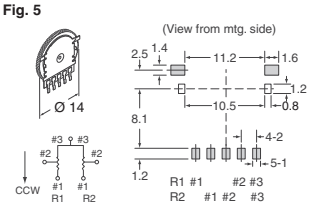


Fig. 6

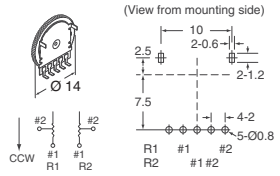
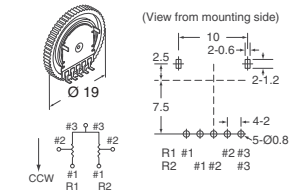
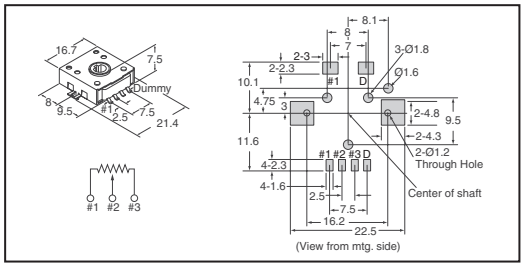


Fig. 7



16mm Square Rotary Potentiometers with Detents

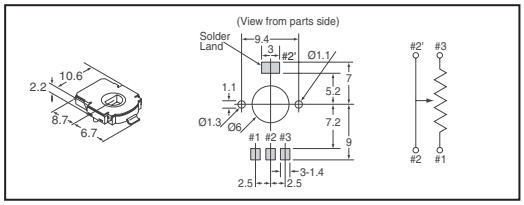


Recommended Applications: • Function switching and adjusting for control panels of car air conditioners
Features: • Small size • High click torque • External Dimensions: 16.7mm x 16.3mm x 6.0mm • Through hole for a shaft • Suitable for reflow soldering
Mechanical Specifications: • Rotation Torque: 40 mN·m ± 15 mN·m • Detent Pitch: (12, 7 active) 30° ± 3° • Rotation Angle: 360° Endless
Electrical Specifications: • Power Rating: 0.05W • Nominal Total Resistance: 10kΩ ±30% • Taper: B • Rotation Life: 30,000 nominal
Operating Temperature: -40°C ~ 85°C

Detent Number	1	2	3	4	5	6	7
Angle	90°	120°	150°	180°	210°	240°	270°
Output/Initial	5% max.	16.7% ± 5%	33.3% ± 5%	50% ± 5%	66.7% ± 5%	83.3% ± 5%	95% min.

Description	Digi-Key Part No.	Cut Tape Pricing 1	10	100	Digi-Key Part No.	T & R Pricing 350	Panasonic Part No.
10KΩ,12 Detents, SMD	P12427CT-ND	5.83	48.60	447.16	P12427TR-ND	1020.60	EWV-YC8B14

EVWAE 10mm GS Sensors

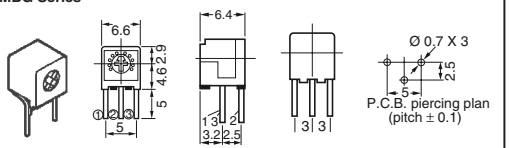


Low profile, long life sensor, which is suitable for detecting the angles of rotating axes, such as air conditioner dampers.
Recommended Applications: • Detection of air conditioner damper angles • Detection of various control unit angles
Features: • Low profile (H=2.2mm) • Long operation life: 1 million operation cycles assured, a wide electrical output angle of a maximum 347°
Specifications: • Rating: 0.05W, 5V • Operating Force: 3 mN.m maximum • Linearity: ±3% maximum • Operation Life: 1,000,000 cycles (operation Angle ±30°) • Total Resistance: 10kΩ ±30%
Operating Temperature: -40°C ~ 85°C

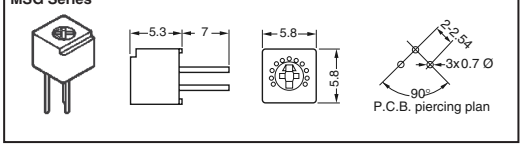
Description	Digi-Key Part No.	Cut Tape Pricing 1	10	100	Digi-Key Part No.	T & R Pricing 1,500	Panasonic Part No.
10KΩ, 10mm, SMD	P12426CT-ND	1.72	14.31	131.65	P12426TR-ND	859.00/M	EVW-AE4001B14

5mm Square Single-Turn Cermet Potentiometers

MBG Series



MSG Series



SPECIFICATIONS:

Mechanical Characteristics:
- Total rotation angle: Adjustment angle 200° nominal
- Soldering: Within 5 seconds maximum at 300°C

Electrical Characteristics:
- Resistance Range: 500Ω to 2 MΩ
- Tolerance: ±20%
- Power Rating: 0.5W at 70°C
- Maximum Voltage: 200V
- Dielectric Withstanding Voltage: 600VAC for one minute
- Temperature Coefficient: ±100ppm/°C
- Insulation Resistance: 100MΩ

Environmental Characteristics:
- Operating Temperature Range: -55°C ~ 125°C
- Vibration: 20G
- Shock: 180G
- Seal: MIL-R-22097 Immersion

Res. (Ω)	Digi-Key Part No. Side Adjust	Digi-Key Part No. Top Adjust	Pricing 1	10	100	1,000	5,000	Panasonic Part No. Side Adjust	Panasonic Part No. Top Adjust
500K	MBG52-ND	—	1.59	13.23	121.67	814.00	756.00/M	EVM-MBGA01B52	—
1K	—	MSG13-ND	1.59	13.23	121.67	814.00	756.00/M	—	EVM-MSGA01B13
500K	—	MSG55-ND	1.59	13.23	121.67	814.00	756.00/M	—	EVM-MSGA01B55
1M	MBG16-ND	—	1.59	13.23	121.67	814.00	756.00/M	EVM-MBGA01B16	—
2M	—	MSG26-ND	1.59	13.23	121.67	814.00	756.00/M	—	EVM-MSGA01B26