

Trimming Potentiometers

Carbon and Cermet

Carbon, 10 mm		Cermet, 10 mm	
			
Series	ECP 10	OCP 10	EMP 10
Overall dimensions	10 x 12 mm	10 x 12 mm	10 x 12 mm
Technology	carbon resistive layer on a phenolic paper base		metal-glaze resistive layer on a ceramic base
Mounting options	vertical	vertical	vertical
	horizontal	horizontal	horizontal
Features	enclosed type double-finger wiper	open type double-finger wiper	enclosed type double-finger wiper
	cross or hexagonal slot (for automatic adjustment)	longitudinal or cross slot	cross or hexagonal slot (for automatic adjustment)
	straight or snap-in pins	straight or snap-in pins	straight or snap-in pins
	rail packaging for automatic insertion available		rail packaging for automatic insertion available
Resistance range	100 Ω - 4.7 M Ω	47 Ω - 4.7 M Ω	47 Ω - 10 M Ω
	E3-series (10-22-47)	E3-series(10-22-47)	preferred : E3-series (10-22-47) additional : E6-series (15-33-68)
Tolerance	$\pm 20\%$, $\pm 10\%$	$\pm 20\%$	$\pm 20\%$, $\pm 10\%$
Maximum dissipation	0.1 W / 40 °C	0.1 W / 40 °C	0.5 W / 70 °C
	0.05 W / 70 °C	0.05 W / 70 °C	
Total mechanical angle of rotation	300° $\pm$ 5°	260° $\pm$ 5°	300° $\pm$ 5°
Temperature coefficient	$\pm 300 \times 10^{-6}/K$ (1 k Ω - 2.2 M Ω)	-500 to $+300 \times 10^{-6}/K$	$\pm 200 \times 10^{-6}/K$ ($\leq 100 \Omega$)
			$\pm 50 \times 10^{-6}/K$ ($> 100 \Omega$ to $< 1 M\Omega$)
			$\pm 100 \times 10^{-6}/K$ ($\geq 1 M\Omega$)
Climatic category	25/085/10	25/070/21	55/125/56
Remarks			

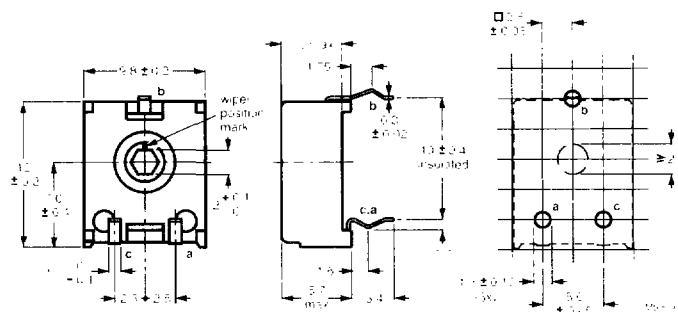
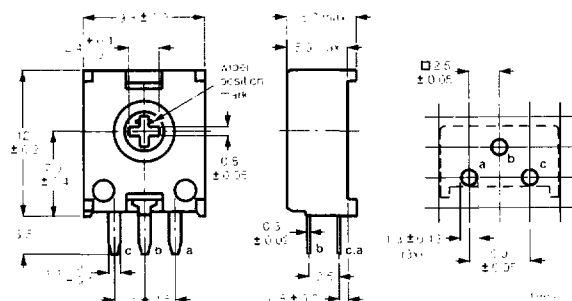
Trimming Potentiometers

Carbon, 10 mm

Ordering information Preferred types

ECP 10, linear, 20% tolerance

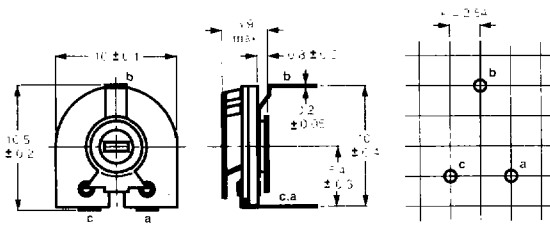
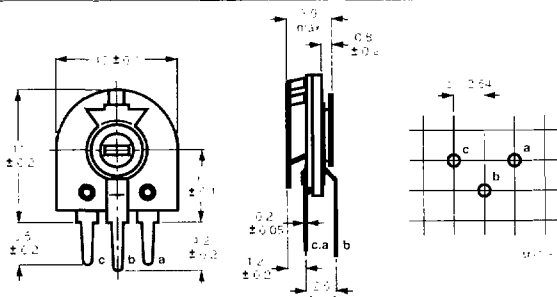
Catalog number				2322 483 ...				
Vertical mounting				Horizontal mounting				
Nominal resistance R_N	Non insulated cross slot straight pins (see figure)	Insulated hex. slot snap-in pins	Insulated cross slot straight pins	Nominal resistance R_N	Non insulated cross slot straight pins	Insulated hex. slot snap-in pins (see figure)	Insulated hex. slot straight pins	Insulated cross slot straight pins
100 Ω	04101	12101	24101	100 Ω	54101	62101	64101	74101
220 Ω	04221	12221	24221	220 Ω	54221	62221	64221	74221
470 Ω	04471	12471	24471	470 Ω	54471	62471	64471	74471
1 k Ω	04102	12102	24102	1 k Ω	54102	62102	64102	74102
2.2 k Ω	04222	12222	24222	2.2 k Ω	54222	62222	64222	74222
4.7 k Ω	04472	12472	24472	4.7 k Ω	54472	62472	64472	74472
10 k Ω	04103	12103	24103	10 k Ω	54103	62103	64103	74103
22 k Ω	04223	12223	24223	22 k Ω	54223	62223	64223	74223
47 k Ω	04473	12473	24473	47 k Ω	54473	62473	64473	74473
100 k Ω	04104	12104	24104	100 k Ω	54104	62104	64104	74104
220 k Ω	04224	12224	24224	220 k Ω	54224	62224	64224	74224
470 k Ω	04474	12474	24474	470 k Ω	54474	62474	64474	74474
1 M Ω	04105	12105	24105	1 M Ω	54105	62105	64105	74105
2.2 M Ω	04225	12225	24225	2.2 M Ω	54225	62225	64225	74225
4.7 M Ω	04475	12475	24475	4.7 M Ω	54475	62475	64475	74475



Preferred packing: 1000 pcs in cardboard box

OCP 10, linear, 20% tolerance

Catalog number				2322 410			
Vertical mounting				Horizontal mounting			
Nominal resistance R_N		Nominal resistance R_N		Nominal resistance R_N		Nominal resistance R_N	
47 Ω	01191	22 k Ω	01158	47 Ω	03391	22 k Ω	03358
100 Ω	01151	47 k Ω	01159	100 Ω	03351	47 k Ω	03359
220 Ω	01152	100 k Ω	01161	220 Ω	03352	100 k Ω	03361
330 Ω	01169	220 k Ω	01162	330 Ω	03369	220 k Ω	03362
470 Ω	01153	470 k Ω	01163	470 Ω	03353	470 k Ω	03363
1 k Ω	01154	1 M Ω	01164	1 k Ω	03354	1 M Ω	03364
2.2 k Ω	01155	2.2 M Ω	01165	2.2 k Ω	03355	2.2 M Ω	03365
4.7 k Ω	01156	4.7 M Ω	01166	4.7 k Ω	03356	4.7 M Ω	03366
10 k Ω	01157			10 k Ω	03357		



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Trimming Potentiometers

Cermet, 10 mm (see reference page 122)

Ordering information Preferred types						
EMP 10, linear						
Catalog number			2322 484			
Vertical mounting			Horizontal mounting			
Nominal resistance R_N	Insulated cross slot Snap-in pins 20 % tolerance	Insulated cross slot straight pins 10 % tolerance (see figure)	Nominal resistance R_N	Insulated cross slot Snap-in pins 20 % tolerance	Insulated hex. slot Snap-in pins 20 % tolerance	Insulated cross slot straight pins 10 % tolerance (see figure)
47 Ω	22479	25479	47 Ω	72479	62479	75479
100 Ω	22101	25101	100 Ω	72101	62101	75101
220 Ω	22221	25221	220 Ω	72221	62221	75221
470 Ω	22471	25471	470 Ω	72471	62471	75471
1 k Ω	22102	25102	1 k Ω	72102	62102	75102
2.2 k Ω	22222	25222	2.2 k Ω	72222	62222	75222
4.7 k Ω	22472	25472	4.7 k Ω	72472	62472	75472
10 k Ω	22103	25103	10 k Ω	72103	62103	75103
22 k Ω	22223	25223	22 k Ω	72223	62223	75223
47 k Ω	22473	25473	47 k Ω	72473	62473	75473
100 k Ω	22104	25104	100 k Ω	72104	62104	75104
220 k Ω	22224	25224	220 k Ω	72224	62224	75224
470 k Ω	22474	25474	470 k Ω	72474	62474	75474
1 M Ω	22105	25105	1 M Ω	72105	62105	75105
2.2 M Ω	22225	25225	2.2 M Ω	72225	62225	75225
4.7 M Ω	22475	25475	4.7 M Ω	72475	62475	75475
10 M Ω	22106	25106	10 M Ω	72106	62106	75106

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