



Aragonesa de Componentes Pasivos

ACP - PRODUCT SELECTION GUIDE (www.acptechnologies.com)

Product Series	CA6		CA9 / CE9		CA14 / CE14		MCA / MCE		RS14	CS14		Q16	COM	CUSTOM PCR			
Description	6mm trimming carbon potentiometer in vertical or horizontal mounting versions. SMD version available in Tape&Reel packaging		9mm carbon/cermet potentiometers, for control or position sensing. Detent options: Up to 20 detents for feeling Up to 10 detents for non-overlapping when combined with silver zones, SMD version available in T&R packaging		14mm carbon/Cermet potentiometers for control. Detent options: Up to 38 detents for feeling Up to 14 detents for non-overlapping when combined with silver zones, SMD version available in T&R packaging		9mm, 14mm control carbon/cermet potentiometers for sturdier applications. Bushing for panel mounting. Plastic housing and shaft		14 mm position sensor or extended life control applications. Smooth rotation feeling, SMD version available in T&R packaging	14mm carbon 360° endless rotation for position sensor or control applications Detent options: Up to 51 detents for feeling Up to 17 detents for non-overlapping with silver zones or special linearity control. SMD version available in T&R packaging		Q16 is an endless rotary position switch The standard configuration has 16 detents evenly distributed along its 360° endless rotation.	Low-cost switches in 6, 9, or 14mm. Two outputs: ON-OFF-ON	Special designs tailored to clients' needs. ACP has an ISO C clean room facility and laser trimming equip.			
Common features	Square shape, plastic housing, IP 54 protection																
	Electrical tapers: linear (Lin), log, antilog and special tapers available on request. Laser trimming available for special requirements on tolerance. Special linearity also available.																
Highly customizable based on terminal configuration and pitch.																	
Accessories (thumbwheels and shafts) can be ordered separately or already mounted.					Optional, bushing and nut can be sent separately			Customizable based on taper, rotational life, terminal set up, linearity, etc. 3% standard linearity. From 10.000 up to 1 million cycles.		Position sensing 3% standard linearity. Standard, 15.000 turns, combinable with detents Long life, up to 1 million turns		16x15mm. rectangular shape external housing 4 different detent torque values, from 3 Ncm to 6 Ncm 10.000 turns and no voltage overlapping between contiguous positions.		Switching angle at 20°±15° or 30°±15° (1)		Features depend on materials, Low tolerance available >1%, linearity <5%, etc	
Packaging	Bulk, Tape&Reel (SMD)		Bulk, Tape&Reel (SMD)		Bulk, Tape&Reel (SMD)		Bulk		Bulk, T&R opt(SMD)		Bulk, T&R opt(SMD)		Bulk		Bulk		
Mech. rotation angle	235 ± 10°		240 ± 5°		265 ± 5°		Features for MCA and MCE are the same as of the corresponding CA and CE models		265 ± 5°		360°		360°		External aspect and features, as for CA and CE models Carbon / Cermet		
Electr. rotation angle	215 ± 20°		220 ± 20°		245 ± 20°				245 ± 20°		330 ± 20°		330 ± 20°				
Terminal Type	THT, SMD		THT, SMD		THT, SMD				THT, SMD		THT, SMD		THT				
Element Type	Carbon		CA Carbon CE Cermet		CA Carbon CE Cermet				Carbon		Carbon		Carbon				
Op. Temperature	-25°C / +70°C +85°C on request		-25°C / +70°C +85°C on request		-40°C / +90°C +125°C on request				-25°C / +70°C +85°C on request		-25°C / +70°C +85°C on request 120°C Special version		-25°C / +70°C +85°C on request 120°C Special version				-40°C / + 125°C
Power Rating Lin	0.10 W		0.15 W		0.5 W		0.25 W		0.70 W		15V/12mA (6mm) 24V/15mA (9, 14mm)						
Log/anti-log	0.06 W		0.10 W		0.2W		0.13 W		0.30 W								
Max voltage Lin	100 VDC		200 VDC		200 VDC		250 VDC		250 VDC		250 VDC		250 VDC				
Log/anti-log	60 VDC		150 VDC		200 VDC		200 VDC		250 VDC		250 VDC		250 VDC				



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Resistance Range ⁽¹⁾			100Ω ≤ Rn ≤ 5MΩ ⁽¹⁾				Standard 10K 100Ω ≤ Rn ≤ 5MΩ (1)		
Linear taper	THT							Insulation resistance: For 6mm 100MΩ For 9, 14mm 100GΩ	From 100Ω to 1MΩ per square
	SMD	100Ω ≤ Rn ≤ 1MΩ	CA Carbon 100Ω ≤ Rn ≤ 1MΩ	CE Cermet 100Ω ≤ Rn ≤ 5MΩ	CA Carbon 100Ω ≤ Rn ≤ 1MΩ	CE Cermet 100Ω ≤ Rn ≤ 5MΩ	100Ω ≤ Rn ≤ 1MΩ		
Log/anti-log taper	THT							Insulation resistance: For 6mm 100MΩ For 9, 14mm 100GΩ	From 100Ω to 1MΩ per square
	SMD	1KΩ ≤ Rn ≤ 1MΩ	CA Carbon 1KΩ ≤ Rn ≤ 1MΩ	CE Cermet 1KΩ ≤ Rn ≤ 2M2Ω ⁽¹⁾	CA Carbon 1KΩ ≤ Rn ≤ 1MΩ	CE Cermet 1KΩ ≤ Rn ≤ 2M2Ω	1KΩ ≤ Rn ≤ 1MΩ		
Tolerance									
Carbon Through hole	Rn < 100Ω							Features for COM are the same as of the corresponding CA and CE models	From 100Ω to 1MΩ per square
	100Ω ≤ Rn ≤ 100KΩ								
	100KΩ ≤ Rn ≤ MΩ								
	1MΩ ≤ Rn ≤ 5MΩ								
Carbon SMD	Rn > 5MΩ							Features for COM are the same as of the corresponding CA and CE models	From 100Ω to 1MΩ per square
	100Ω ≤ Rn ≤ 100KΩ	±25%					±30%		
	100KΩ ≤ Rn ≤ 1MΩ	±25%					±40%		
Cermet Through hole and SMD	1MΩ ≤ Rn ≤ 5MΩ	±50%					±50%	Features for COM are the same as of the corresponding CA and CE models	From 100Ω to 1MΩ per square
	100Ω ≤ Rn ≤ 100KΩ	-					±20%		
	100KΩ ≤ Rn ≤ 1MΩ	-					±20%		
Mechanical Life (Std)	1000	1000 (for detents: 10K)	1000 (for detents: 10K)					Features for COM are the same as of the corresponding CA and CE models	From 100Ω to 1MΩ per square
	Long life	Others available	10.000 (1)	Many more available on request					
Max Stop Torque	4Ncm	5 Ncm	10Ncm					Features for COM are the same as of the corresponding CA and CE models	From 100Ω to 1MΩ per square
Max. push/pull on rotor	9.8N	40N	50N						
Wiper torque	<2Ncm	<2 Ncm With detents: <2.5 Ncm	<2.5 Ncm With detents: <3.5 Ncm					Features for COM are the same as of the corresponding CA and CE models	From 100Ω to 1MΩ per square
Potentiometer Type	Commercial	Commercial	Commercial						

(1) Other values available on request