



Aragonesa de Componentes Pasivos

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

Product Series	CA6		CA9 / CE9		CA14/CE14 CAR14/CER14		MCA / MCE		RS14 / RSR14		CS14		Q16		QJ16		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.		QJ16 is a spring loaded potentiometer. The standard configuration has ±45° as mechanical angle, from the rest central position.		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	<p style="text-align: center;">Square shape, plastic housing, IP 54 protection</p> <p>Electrical tapers: linear (Lin), log, antilog and special tapers available on request. Laser trimming available for special requirements on tolerance. Special linearity also available.</p> <p style="text-align: center;">Highly customizable based on terminal configuration and pitch.</p> <p>Accessories (thumbwheels and shafts) can be ordered separately or already mounted.</p> <p>Optional, bushing and nut can be sent separately</p> <p>Customizable based on taper, rotational life, terminal set up, linearity, etc. 3% standard linearity. From 10.000 up to 1 million cycles. Accessories (thumbwheels and shafts) can be ordered separately or already mounted.</p> <p>Position sensing 3% standard linearity. Standard, 15,000 turns, combinable with detents Long life, up to 1 million turns</p> <p>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.</p> <p>16x15mm. rectangular shape external housing Standard 10,000 cycles Long life, up to 20,000 cycles</p> <p>Switching angle at 20°±15° or 30°±15° (1)</p> <p>Features depend on materials, Low tolerance available >1%, linearity <5%, etc</p>																			
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		Bulk			
Mech. rotation angle	235 ± 10°		240 ± 5°		265 ± 5°				265 ± 5°		360°		360°		±45°					
Electr. rotation angle	215 ± 20°		220 ± 20°		245 ± 20°				245 ± 20°		330 ± 20°		330 ± 20°		245 ± 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						Carbon / Cermet	
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 +85°C on request		-25°C/+70°C -40°C /+90°C +125°C on request		-25°C / +85°C		-25°C / +70°C +85°C on request 120°C Special version		-25°C / +70°C +85°C on request 120°C Special version							
Power Rating Lin	0.10 W		0.15 W		0.5 W		0.25 W		0.15 W		0.15 W		0.15 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													



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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 100Ohm to 1MOhm 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	10K standard resistance (1)	100Ω ≤ Rn ≤ 1MΩ	-			-
Log/anti-log taper	THT			1KΩ ≤ Rn ≤ 2M2Ω ⁽¹⁾				1KΩ ≤ Rn ≤ 2M2Ω (1)		Insulation resistance: For 6mm 100MΩ For 9, 14mm 100GΩ	From 100Ohm to 1MOhm per square	
	SMD	1KΩ ≤ Rn ≤ 1MΩ	CA Carbon 1KΩ ≤ Rn ≤ 1MΩ	CE Cermet 1KΩ ≤ Rn ≤ 2M2Ω	CA Carbon 1KΩ ≤ Rn ≤ 1MΩ	CE Cermet 1KΩ ≤ Rn ≤ 2M2Ω	10K standard resistance (1)	1KΩ ≤ Rn ≤ 1MΩ	-			-
Tolerance												
Carbon Through hole	Rn < 100Ω			+50%, -30%						Features for COM are the same as of the corresponding CA and CE models	Up to millions of cycles	
	100Ω ≤ Rn ≤ 100KΩ			±20%								
	100KΩ ≤ Rn ≤ 1MΩ			±20%				±30%				
	1MΩ ≤ Rn ≤ 5MΩ			±30%				±30%				
Carbon SMD	Rn > 5MΩ			+50%, -30%						Features for COM are the same as of the corresponding CA and CE models	Up to millions of cycles	
	100Ω ≤ Rn ≤ 100KΩ	±25%			±30%				±30%			
	100KΩ ≤ Rn ≤ 1MΩ	±25%			±40%				±40%			
Cermet Through hole and SMD	1MΩ ≤ Rn ≤ 5MΩ	±50%			±50%				±50%		Features for COM are the same as of the corresponding CA and CE models	Up to millions of cycles
	100Ω ≤ Rn ≤ 100KΩ	-			±20%				±20%			
	100KΩ ≤ Rn ≤ 1MΩ	-			±20%				±20%			
Mechanical Life (Std)	1000	1000 (for detents: 10K)		1000 (for detents: 10K)						1.000 (1)	Up to millions of cycles	
	Long life	Others available	10.000 (1)		Many more available on request							
Max Stop Torque	4Ncm	5 Ncm		10Ncm						as for CA and CE models		
Max. push/pull on rotor	9.8N	40N		50N						as for CA and CE models		
Wiper torque	<2Ncm	<2 Ncm With detents: <2.5 Ncm		<2.5 Ncm With detents: <3.5 Ncm						<2.Ncm (6,9 mm) <2.5 Ncm (14mm)		
Potentiometer Type	Commercial	Commercial		Commercial		Commercial		Commercial		Commercial		

(1) Other values available on request