

Carbon Trimmer Potentiometers CA6 SMD Series

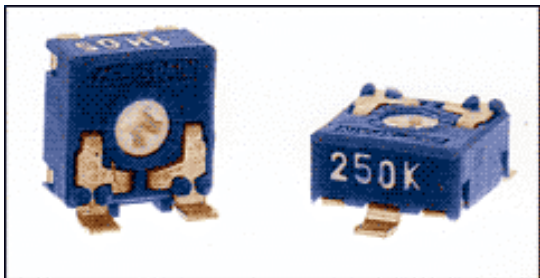
Trimming potentiometers with polyester substrate and carbon resistive pastes. They have a plastic housing with IP 5 protection (dust-proof).

Terminals are manufactured in tinned brass to guarantee better soldering, as well as higher resistance to corrosion. The wide surface collector allows for high thermic dissipation.

These potentiometers can be adjusted from either side, both in the horizontal and the vertical types. There is an adjusting guide on the housing, which simplifies the manual adjusting operation.

Carbon potentiometers can be manufactured in a wide range of types, according to:

- Resistive value
- Tolerance
- Tapers / variation laws of the resistive element (linear, log, antilog). Others on request. Raster.
- Positioning of the wiper (the standard is at 50%).
- housing and rotor color to help with its identification.
- Long life (10.000 cycles); other values on request
- Self-extinguishable properties according to UL 94 V-0.



GENERAL NOTES

Characteristics

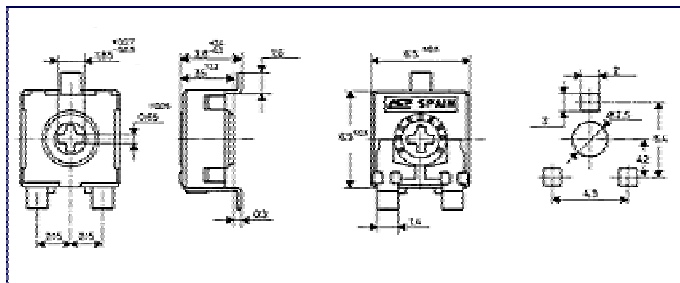
- 6 mm / Carbon / IP 5 protection (dust-proof)
- Recommended for reflow soldering.
- The substrate is composed of high temperature resistant materials.
- Linear, log. and antilog. laws, others under request.
- Possibility of higher mechanical life on request.

Applications

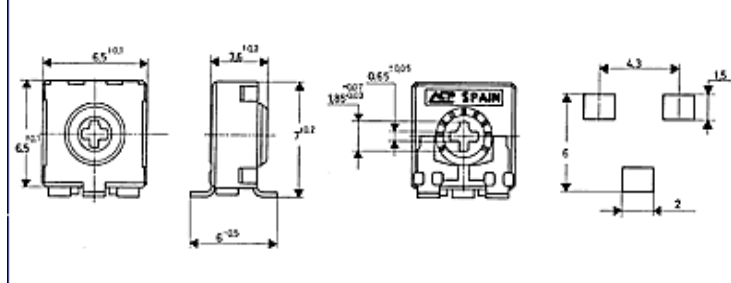
- TV / Monitors.
- Measurement devices.
- Telecommunication equipment (antenna amplifiers and receivers, videocomm., intercomm.)
- Alarm systems.

MODEL TYPES

CA6V SMD

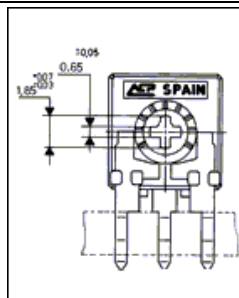


CA6H SMD

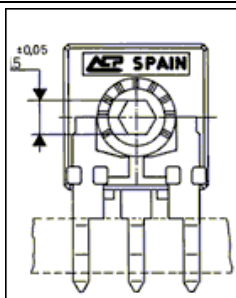


ROTOR TYPES

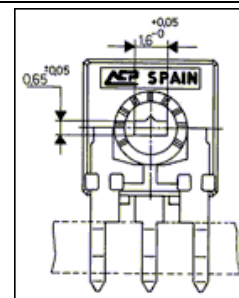
Standard Rotor



'M' Rotor

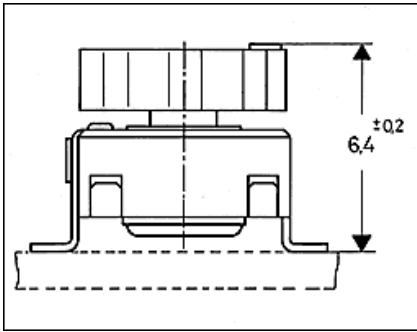
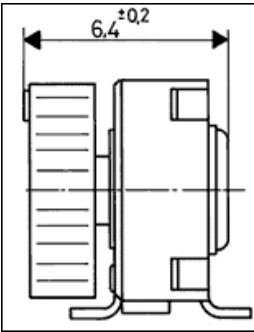
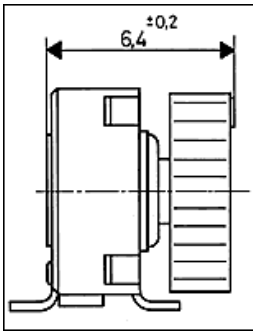


'N' Rotor

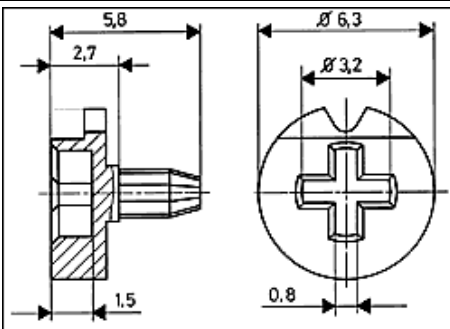
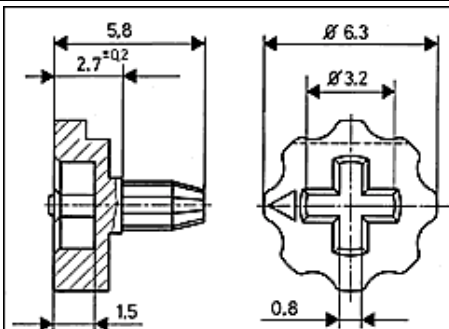
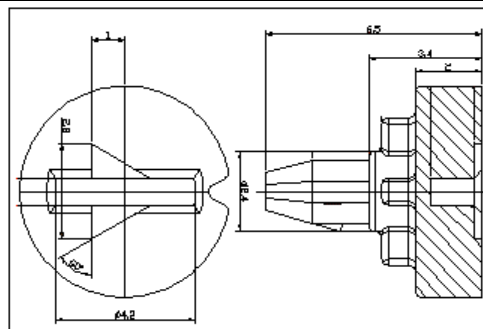
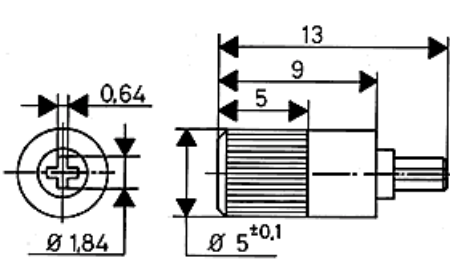
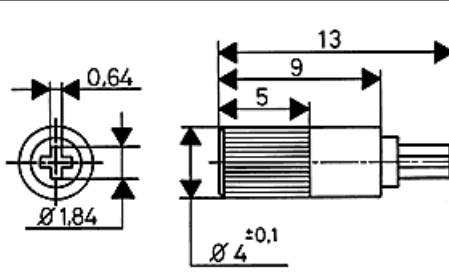
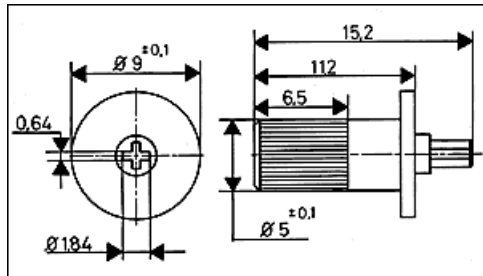
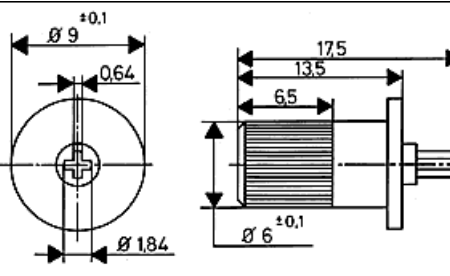
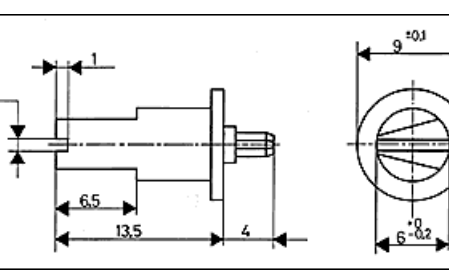
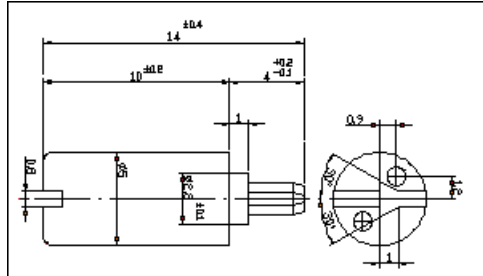


The rotors are identical across the entire CA6 series.

ADJUSTMENT CONFIGURATIONS

CA6V SMD WT	CA6H SMD WT	CA6H SMD WTI
		

ADJUSTMENT ACCESSORIES

001 	6030 	6032 
6022 	6023 	6024 
6025 	6028 	6031 

Shafts and thumbwheels can be provided in different colors. Special accessories can be manufactured on request. Vimex can provide potentiometers with shafts and thumbwheels already inserted. All plastic pieces can be provided in accordance with UL 94 V-0 standard, on request.



Carbon Trimmer Potentiometers CA6 SMD Series

ELECTRICAL CHARACTERISTICS

Parameter	
Range of Resistance Values	100Ω - 1MΩ Linear (A) 1KΩ - 1MΩ Log (B) or AntiLog (C) <i>Others upon request</i>
Tolerance	100Ω - 1MΩ ±25% > 1MΩ - 5MΩ ±35% <i>Others upon request</i>
Resistance Laws – Tapers	Linear (A), Log(B), Antilog(C) (DIN41450-1-4-5) <i>others upon request</i>
Residual resistance	Linear(A) or Log(B) or AntiLog(C) $\leq 5 \cdot 10^{-3} R_n$ Minimum value: 2Ω
Contact resistance variation (dynamic)	$\leq 3\% R_n$ or 3Ω
Contact resistance (static)	$\leq 5\% R_n$
Maximum power dissipation @ 40°C	Linear(A): 0.10 Watt Non Linear(B,C): 0.06 Watt
Maximum voltage	Linear(A): 100 Volts Non Linear(B,C): 60 Volts
Operating temperature range	-25°C... +70°C <i>Others upon request</i>
Temperature coefficient	100Ω to 100KΩ +200/-500 p.p.m./°C 100KΩ to 5MΩ +200/-1000 p.p.m./°C

MECHANICAL CHARACTERISTICS

Parameter	
Resistive element	Flexible conductive plastic carbon film
Wiper torque	0.2...2 Ncm
Angle of rotation (mechanical)	235°±10°
Angle of rotation (electrical)	215°±20° (<i>others upon request</i>)
Maximum torque at end stop	> 4 Ncm
Max. thrust (push/pull) on rotor	> 9.8 N
Cycles	1,000 (<i>others upon request</i>)

TYPICAL TESTS AND RESULTS

Parameter	Conditions	Results (ΔRn%)
Damp Heat	40°C, 95%RH	+ 5%; -2%
Thermal Cycling	16 hours +85°C; 2 hours -25°C	± 2.5%
Load Life	40°C	+ 0%; -5%
Mechanical Life	100 cycles @10 rpm	± 3%
Soldering effect	SnPb40; 350°C; 2 seconds	± 1%
Storage (3 years)	23°C ± 2°C	± 3%

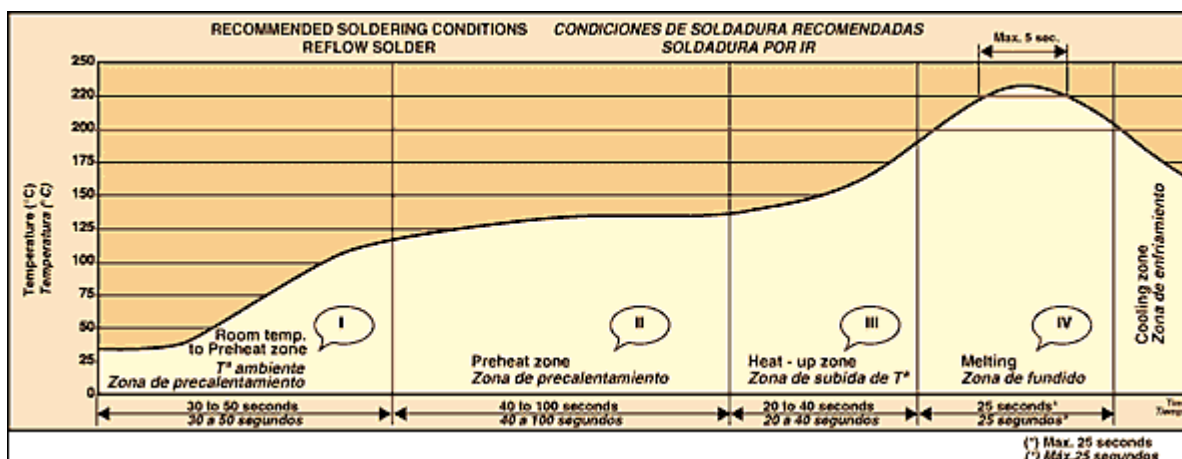
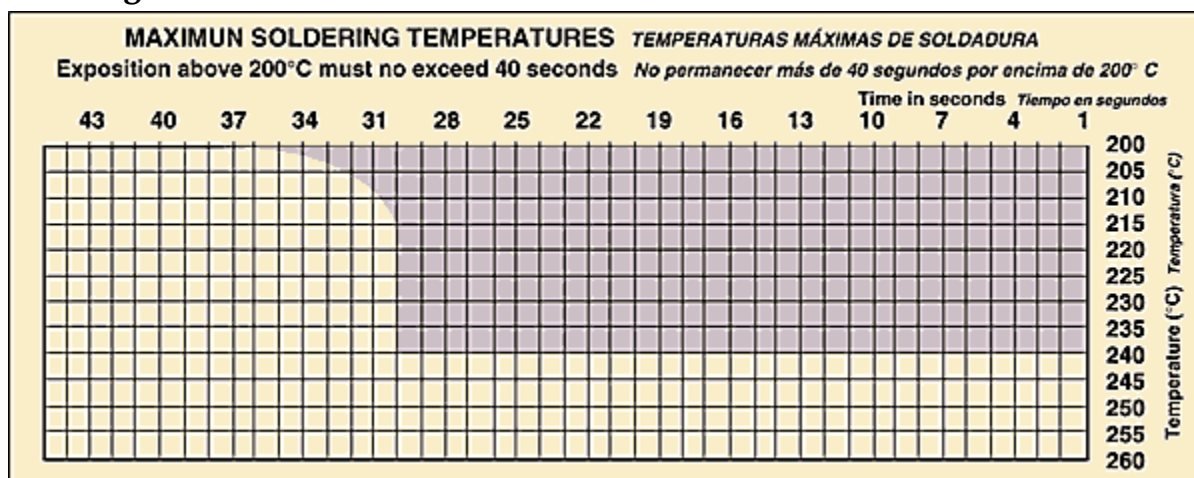
SOLDERING PROCESS NOTES

Manual Soldering

When manual soldering is employed, the following conditions are recommended:

- Power of soldering iron: 20W max.
- Temperature of soldering iron: 280°C max.
- Time: 3 seconds max.

Reflow Soldering



HOW TO ORDER

CA6	- M N	VSMD HSMD				All Other
Series	Rotor	Model	Value	Tolerance	Taper	Codes

Example: CA6VSMD-10K-REEL

All standard features codes are omitted from part number. Call factory @800-227-0075 for special codes.