

Carbon potentiometer specifications

TESTS	Piher typical test results 95% LOTS ΔR (%)	Value CEI 393-1 (formerly DIN std 41450) ΔR(%)	TEST METHOD CEI 393-1 (formerly DIN STD 41450)
Resistance to soldering heat	< ±1%	< ± 2%	a) Subject component to a temperature of 55° C and ≤ 20% RH for 24 hours, after recovery measure total R. b) Immerse terminals in a molten lead free solder bath at 350° C to within 3mm of the body for 2 sec (potentiometer mounted on a p.c.b. of 1.5 mm thickness). c) Measure total R after 24 hours at normal ambient temperature.**
Solderability	95% of treated surface covered with solder		Bath in flux (25% colophony) for 5 sec then immerse terminals in a molten lead free solder bath at 260° C for 5 sec.
Temperature cycling	< ±2.5%	< ± 5%	a) Precondition* for 24 h, measure total R. b) 16 h. at 85° C ± 2°C c) Precondition* for 2 hours. d) 2 h. at -25° C ± 2°C e) 16 h. at normal ambient temperature. **
Temperature coefficient	100 Ω to 100 k Ω ±300 ppm/° C Rn > 100k +300 -500	100 Ω to 22 k Ω ± 1000 ppm/° C > 22 k Ω to 4.7 M Ω +300/-1000 ppm/° C	a) Subject component to a temperature of 55° C and ≤20% RH for 24 h and recovery. b) Measure total R after 1/2 h. at -25° C, +70° C and normal ambient temp.** (all at ≤ 50% RH)
Damp Heat	< ±5%	< ± 15%	a) Precondition* for 24 h. measure total R b) 500 h. at 40° C. 90-95% RH. c) Measure total R after 24 h. at normal ambient temperature.**
Mechanical Life	> 100 Ω < ±3% > 1M Ω < ±5%	100 Ω to 100 k Ω < ± 5% > 100 k Ω to 4.7 M Ω < ± 10%	a) Precondition* for 24 h. measure total R. b) Apply 1000 cycles*** at speed of 10-15 r.p.m. c) Measure total R.
Electrical Life	< ±5%	< ± 10%	a) Precondition* for 24 h. measure total R. b) 1000 h. at 50° C ± 2°C applying W _R without exceed V _p 1.5h ON c) Measure total R. 0.5h OFF
Resistance to cleaning Fluids and Solvents	< ±5%	< ± 10%	a) Precondition* for 24 h. measure total R. b) Immerse for 10 minutes in each of the following fluids @ 60°C: isopropyl alcohol and soapy water c) Measure total R after 24 h. at normal ambient temperature.**
Vibration	< ±2%	< ± 3%	2 hour cycles in each of the X, Y and Z planes (6 hours). The wiper is set at mid point (50%). Frequency 10 Hz. - 55Hz.
Storage	< ±2.5%	< ± 5%	a) Precondition* for 24 h. measure total R b) Store for 6 months at normal ambient temperature.** c) Precondition* for 24 h. measure total R at normal ambient temperature.**

* Preconditioning: store the samples at 23° ±2° C and 50 ±5% RH.

** Normal ambient: temperature of 23° ±2° C and 45% to 70% RH.

*** 1 cycle = go and return over the total mechanical angle.

Cermet potentiometer specifications

TESTS	Piher typical test results 95% LOTS ΔR (%)	Value CEI 393-1 (formerly DIN std 41450) ΔR(%)	TEST METHOD CEI 393-1 (formerly DIN STD 41450)
Resistance to soldering heat	< ±1%	< ± 2%	a) Subject component to a temperature of 55° C and ≤ 20% RH for 24 hours, after recovery measure total R. b) Immerse terminals in a molten lead free solder bath at 350° C to within 3mm of the body for 2 sec. (potentiometer mounted on a p.c.b. of 1.5 mm thickness). c) Measure total R after 24 hours at normal ambient temperature.**
Solderability	95% of treated surface covered with solder		Bath in flux (25% colophony) for 5 sec. then immerse terminals in a molten lead free solder bath at 260° C for 5 sec.
Temperature cycling	< ±2%	< ± 10%	a) Precondition* for 24 h, measure total R. b) 16 h. at 105° C ± 2°C c) Precondition* for 2 hours. d) 2 h. at -40° C ± 2°C e) 16 h. at normal ambient temperature.**
Temperature coefficient	< ±100 ppm/° C	100 Ω to 22 k Ω ± 1000 ppm/° C > 22 k Ω to 4.7 M Ω +300/-1000 ppm/° C	a) Subject component to a temperature of 55° C and ≤20% RH for 24 h and recovery. b) Measure total R after 1/2 h. at - 40° C, 90 ° C and normal ambient temp.** (all at ≤ 50% RH).
Damp Heat	< ±2%	< ± 15%	a) Precondition* for 24 h. measure total R b) 500 h. at 40° C. 90-95% RH. c) Measure total R after 24 h. at normal ambient temperature.**
Mechanical Life	< ±2%	100 Ω to 100 k Ω < ± 5% > 100 k Ω to 4.7 M Ω < ± 10%	a) Precondition* for 24 h. measure total R. b) Apply 1000 cycles*** at speed of 10-15 r.p.m. c) Measure total R.
Electrical Life	< ±2%	< ± 10%	a) Precondition* for 24 h. measure total R. b) 1000 h. at 70° C ± 2°C applying W _R without exceed V _p 1.5h ON c) Measure total R. 0.5h OFF
Resistance to cleaning Fluids and Solvents	< ±1%	< ± 10%	a) Precondition* for 24 h. measure total R. b) Immerse for 10 minutes in each of the following fluids @ 60°C: isopropyl alcohol and soapy water c) Measure total R after 24 h. at normal ambient temperature.**
Vibration	< ±2%	< ± 3%	2 hour cycles in each of the X, Y and Z planes (6 hours). The wiper is set at mid point (50%). Frequency 10 Hz. - 55 Hz.
Storage	< ±2%	< ± 5%	a) Precondition* for 24 h. measure total R b) Store for 6 months at normal ambient temperature.** c) Precondition* for 24 h. measure total R at normal ambient temperature.**

* Preconditioning: store the samples at 23° ±2° C and 50 ±5% RH.

** Normal ambient: temperature of 23° ±2° C and 45% to 70% RH.

*** 1 cycle = go and return over the total mechanical angle.