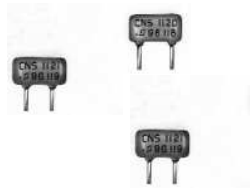
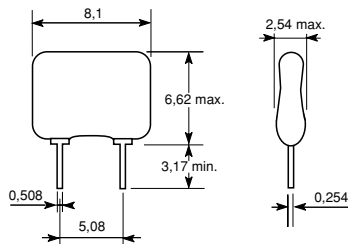
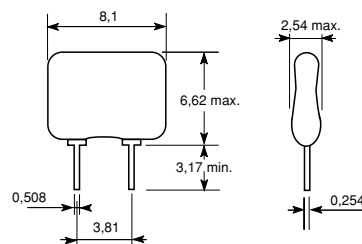



CNS \leq $\begin{matrix} 020 \\ 021 \end{matrix}$

high precision resistors



The models CNS 020 and CNS 021 resistors incorporate an ultrastable thin film element into the RCK02 form factor thereby extending the existing range capability.

CNS 020

CNS 021

ELECTRICAL DIAGRAM


Dimensions in mm

4

Thin film products

SPECIFICATIONS
MECHANICAL

SUBSTRATE... alumina
 RESISTIVE ELEMENT... passivated nichrome
 TERMINAL LEADS... Sn Pb on Cu alloy
 PROTECTION... epoxy coating

ELECTRICAL

OHMIC VALUE RANGE... 100 k Ω ... 10 M Ω (lower on request)
 RESISTANCE TOLERANCE... $\pm 0,01$ % tightest
 ± 1 % looser

TEMPERATURE COEFFICIENT

OF RESISTANCE... ± 10 ppm/ $^{\circ}$ C standard
 (-55° C, $+125^{\circ}$ C)
 ± 5 ppm/ $^{\circ}$ C on request
 (0° C, $+70^{\circ}$ C)

POWER RATING...

0,25 W at $+70^{\circ}$ C
 0,125 W at $+125^{\circ}$ C
 derating 0 W at $+155^{\circ}$ C

MAXIMUM WORKING VOLTAGE...

300 V
 (higher on request)

CLIMATIC
OPERATING TEMPERATURE

RANGE... -55° C $+155^{\circ}$ C

MARKING

In clear : series, model, SFERNICE trademark and manufacturing code.

On back side : ohmic value (in Ω), tolerance (in %).

PERFORMANCE

TESTS	CONDITIONS	REQUIREMENTS		DRIFTS max.
		NFC 83-220 CECC 40 300	MIL R-55182E	
OVERLOAD	2,5 Un / 5 s U max. < 2 Un	$\pm 0,01$ %	$\pm 0,05$ %	0,01 %
TEMPERATURE CYCLING	-55° C/ $+155^{\circ}$ C 5 cycles CEI 68-2-14 Test Na	$\pm 0,01$ %	$\pm 0,05$ %	0,01 %
TERMINAL STRENGTH	CEI 68-2-21 Test Ua (pulling) Ub (bending) Uc (twisting)	$\pm 0,01$ %	$\pm 0,02$ %	0,01 %
RESISTANCE TO SOLDER HEAT	$+260^{\circ}$ C / 10 s CEI 68-2-20A Test Tb (met 1A)	$\pm 0,01$ %	$\pm 0,02$ %	0,01 %
VIBRATION	10 Hz to 500 Hz 10 g, 6 hours met B4 CEI 68-2-6 Test Fc	$\pm 0,01$ %	$\pm 0,02$ %	0,01 %
CLIMATIC SEQUENCE	-55° C / $+155^{\circ}$ C 6 cycles 95% RH 85mbar CEI 68-2-61	$\pm 0,05$ % I. Resist. >10 ² M Ω	-	0,05 %
MOISTURE	56 days 95% RH $+40^{\circ}$ C CEI 68-2-3	$\pm 0,05$ % I. Resist. >10 ² M Ω	-	0,02 %
LOAD LIFE	1000 hours Pn at 70° C 90' / 30'	$\pm 0,05$ %	$\pm 0,05$ %	0,05 %
HIGH TEMPERATURE STORAGE	1000 hours / $+155^{\circ}$ C CEI 68-2-2 Test B	$\pm 0,05$ %	-	0,05 %

ORDERING PROCEDURE
