CSR Pressure-foot Sampling Resistors

Features

- Rated power: 1–7 W
- Tolerance: ±5%
- TCR down to ±40 ppm/°C
- Low inductance; good solderability
- RoHS compliant; custom versions available



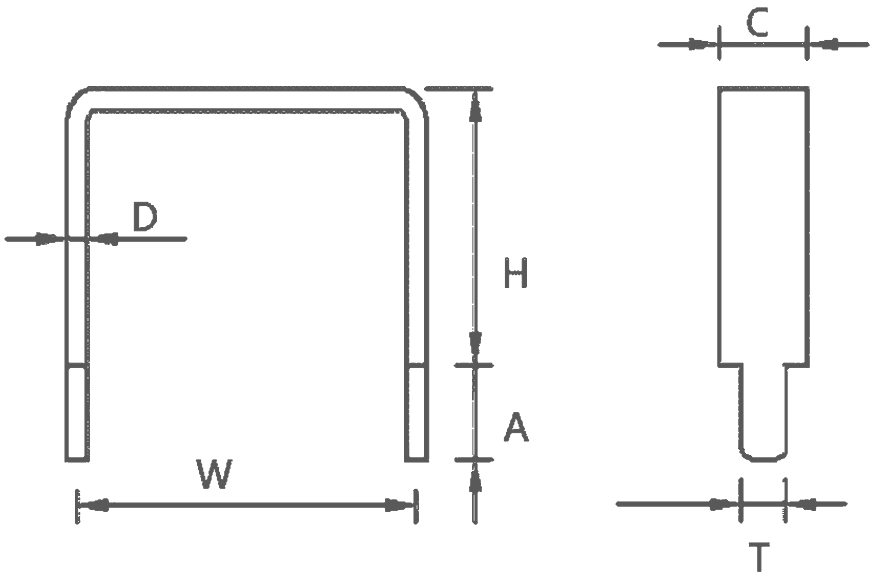
Applications

Current sensing, drive technology, power electronics, appliance controllers, automotive electronics and communication systems.

Standard Dimensions • mm

C/mm	D/mm	W/mm	H/mm	A/mm	T/mm
2.4~6	0.3~1.3	5~30	5~30	3.5±0.2	1.2/1.5

Mechanical Drawing • mm

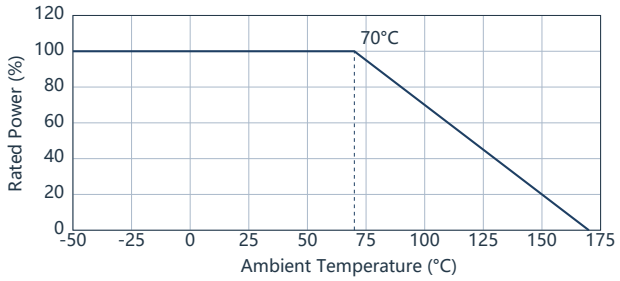


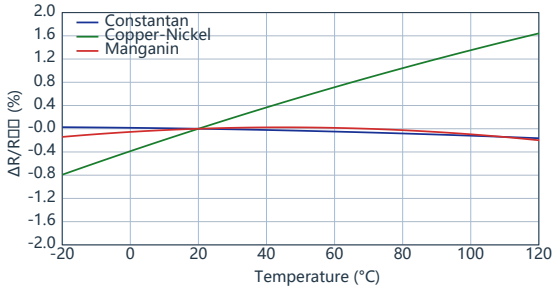
Order example: C 3 -9.5 -2.3 J. CSR-C; 3 W; 9.5 mm pitch; 2.3 mΩ; K ±10%, J ±5%; X plating, X1 tin dip, t special size.

Pitch and Resistance Ranges • mΩ

Thickness × width (mm)	10 mm	15 mm	20 mm	25 mm	30 mm	Material	TCR ppm/°C	Current (A)
1.3×3.5	2.5~7	2.8~7.6	3.6~8.4	4~8.8	4.4~9	Constantan	±40	30
1.1×3.3	2~6	2.5~6.5	3~7	3.5~7.5	4~8	Copper-Nickel	±200	30
1.1×3.3	7~20	8~21	10~23	11~24	13~25	NiCr	±120	25.5
1.1×3.3	3~9	3.5~9.5	4.5~10.5	5~11	5.5~11.5	Constantan	±40	28
0.9×4	3.3~9.5	4~10	5~10	5.5~11	6.5~12	Constantan	±40	28
0.85×2.4	6~16	7~17	8~18	9~19	10~20	Constantan	±40	15
0.8×3.3	4.5~13	5.5~13.5	6.5~14.5	7.5~15.5	8.5~16.5	Constantan	±40	20
0.8×2.4	6~17	7.5~18.5	9~20	10.5~21	12~22.5	Constantan	±40	15
0.6×2.4	0.9~2.2	1~2.4	1.2~2.5	1.3~2.6	1.5~2.8	Constantan	±40	11.2
0.6×6	4~8	4~9	5~10	5~10	6~11	Constantan	±40	28
0.6×2.4	9~22	10~24	12~25	13~26	15~28	Constantan	±40	11.5
0.6×2.4	21~49	23~54	27~56	30~58	34~63	NiCr	±120	10
0.5×3.3	7.5~20	9~22	10~23	11.5~24	12.5~26	Constantan	±40	13
0.5×3.3	17~45	21~49	23~51	26~54	29~58	NiCr	±120	11
0.5×3	9~22	10~24	11~25	13~26	14~28	Constantan	±40	12
0.4×3.3	9~25	11~27	12.5~29	14.5~31	16.5~33	Constantan	±40	10
0.4×3.3	21~56	25~60	29~65	33~69	38~74	NiCr	±120	9
0.4×3	10~27	13~29	14~31	16~34	19~36	Constantan	±40	9.5
0.4×3	23~60	30~65	32~69	36~76	43~81	NiCr	±120	8.5
0.4×2.4	12.5~35	15~37.5	17.5~40	20~42.5	22.5~45	Constantan	±40	7.5
0.4×2.4	29~78	34~84	40~90	45~95	51~101	NiCr	±120	7
0.3×6	5~24	7~25	8~26	9~28	11~29	Constantan	±40	14
0.3×4	8~36	10~38	12~40	14~43	16~44	Constantan	±40	9
0.3×3.5	9~41	11~43	13~45	16~48	18~50	Constantan	±40	8.5
0.3×3.3	9~43	12~46	14~48	16~50	19~53	Constantan	±40	8
0.3×3.3	20~98	26~103	31~109	36~114	42~120	NiCr	±120	7
0.3×3	10~45	13~50	15~53	18~56	21~58	Constantan	±40	7

Performance • Derating & TCR (20–120°C)

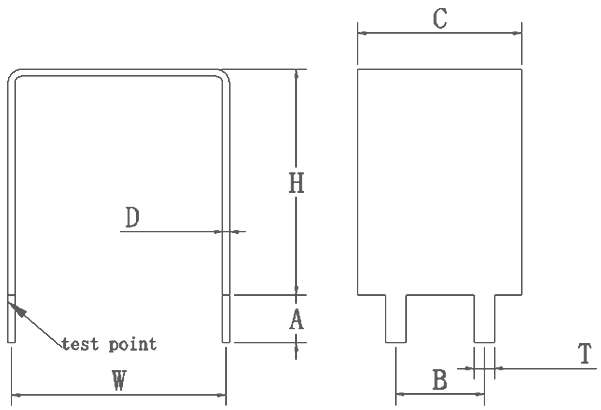




Materials & Resistivity

Symbol	Materials	Resistance Rate
2	Manganin	44μΩ．cm
1	Constantan	48μΩ．cm
6	Copper-Nickel	30μΩ．Cm

Typical Product Dimensions & Performance



Item	Parameter
Material	Constantan
A	3.0mm±0.5mm
H	13.1mm±2mm
W	9.5mm±0.5mm
B	4.8mm±0.3mm
T	1.2mm±0.2mm
D	1.0mm±0.1mm
C	6.0mm±0.5mm
Value	2.3mΩ±5%
rated power	3W

Pitch, overall height and rated current/power may be customized; contact INLANX for special versions.

Endurance Tests

Iterms	Limits	Additional Requirements
Short time overload	within ±1% No evidence of mechanical damage.	Rated power X 5 times, 5s
Vibration	Resistance deviation < ±0.5%, no appearance damage	The frequency was from 10Hz to 2000Hz within 1min. The test was conducted in three directions of 10g vibration magnitude, X-Y-Z, and 24H in each direction.
Resistance to soldering heat	within ±0.5% No evidence of mechanical damage.	260±5℃, 10±1sAfter test leave for 3h.
Solderability	Covered with new solder by 95% at least.	Test temperature of solder: 245±5℃ Dipping time in solder: 5±0.5s
Temperature cycle	within ±1% No evidence of mechanical damage.	-55°C ~ +125°C, 1000 circulation
Biased Humidity	within ±1%	1000hrs 85℃/85%RH。Note:Specified conditions:10% of operating power.
Load life	within ±1%	Rated voltage (90 min ON, 30 min OFF)

Bulk, with inner and outer packaging. Revision: A1.0 / 21-Sep-2022 / First issue