

Plug-in Jumper Resistor Series Specification

■ Product Features

- ① heat-resistant
- ② High current-carrying capacity
- ③ Compatible PCB routing
- ④ Customisable protective layers (heat-shrink tubing, epoxy resin)



■ Fields of application

- ① Frequency converter
- ② Inverter
- ③ Automotive electronics
- ④ Power supply

■ Electrical parameters

wire gauge	Stance width	Height	Operating temperature range
0.5mm ~ 3mm	2.5mm ~ 100mm	4mm ~ 40mm	-55°C ~ +170°C

Custom sizes available

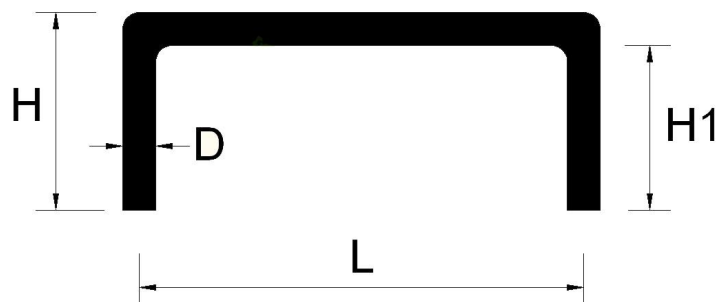
■ Product Selection

Selection Example: HoDX1010-T4.5

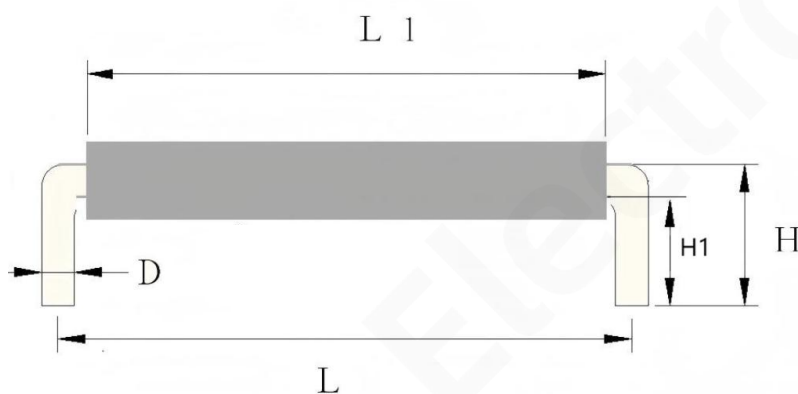
H o	DX	10	10	T	4.5	X
↓	↓	↓	↓	↓	↓	↓
Manufac turer	Materials	wire gauge	span	shape	Overall height	Note
Milliohm Electronics	DX=Tin-plated copper K=Constantan M=Manganese copper ZT=Red copper	05≈ 0.5mm 10≈ 1.0mm 15≈ 1.5mm 20≈ 2.0mm ...	05=5mm 10=10mm 10.5=10.5mm 15=15mm 20=20mm ...	T-type jumper cable U-shaped presser foot jumper	4.5 ...	Special requirements (e.g. sleeves: heat-shrink tubing, fibreglass tubing)



■ Product dimensions



L (span)	H (Overall height)	H1 (pin)	D (wire diameter)
2.5mm ~ 100mm	4mm ~ 40mm	3.5mm ~ 39.5mm	0.5mm ~ 3mm



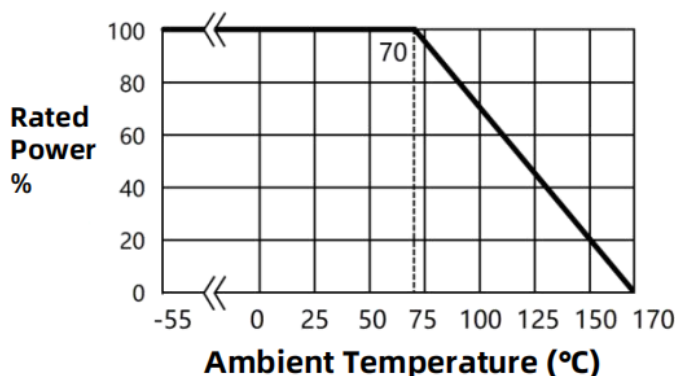
L (span)	H (Overall height)	H1 (pin)	L1 (Sleeve length)	D (wire diameter)
2.5mm ~ 100mm	4mm ~ 40mm	3.5mm ~ 39.5mm	As required	0.5mm ~ 3mm



L (span)	H (Overall height)	H1 (pin)	D (wire diameter)
2.5mm ~ 100mm	4mm ~ 40mm	3.5mm ~ 39.5mm	0.5mm ~ 3mm

■ Power curve

Operating temperature range: **-55 to +170°C** Power derating diagram when resistance temperature reaches **70°C**



■ Reliability testing

Project	Testing Method	Standard	resistance value
Short-term overload	Apply 2.5 times the rated power for a duration of 5 seconds.	JIS-C-5201	$\Delta R \leq \pm 1\%$
Solder resistance testing	Immerse the resistor in a tin bath at $260 \pm 5^\circ\text{C}$ for 10 ± 1 seconds, then remove and allow to rest for at least 60 minutes before measuring the resistance change rate.	MILSTD-202 Method210	$\Delta R \leq \pm 1\%$
Solderability test	Soldering temperature: $245 \pm 5^\circ\text{C}$; Immersion time: 3 ± 0.5 seconds	J-STD-002	Solder coverage greater than 95%
Temperature cycling test	-55 to 170°C , 1000 cycles	JESD22 MethodJA-104	$\Delta R \leq \pm 1\%$ No damage to the exterior
Low-temperature storage	Test conditions: -55°C , storage : 1000 hours	IEC60115-14.23.4 JISC5201-4.23.4	$\Delta R \leq \pm 1\%$
High-temperature storage	1000 hours at 170°C , without power supply. Measure the rate of change in resistance within 24 ± 4 hours after the test concludes. Test duration: 1000 hours	MILSTD-202 Method108	$\Delta R \leq \pm 1\%$

■ Product Usage Recommendations

- ◆ During product use, take care to protect the surface and prevent defects such as dents or scratches from appearing on the product's surface.
- ◆ When installing and using the product, avoid subjecting it to mechanical stress.
- ◆ The long-term operating power of the product should be less than or equal to the rated power to prevent resistance drift caused by prolonged overloading.
- ◆ When operating the product under high-temperature conditions or in environments with inadequate heat dissipation, derating should be applied in accordance with the derating curve.
- ◆ Prior to use, the product must remain sealed within its packaging to prevent oxidation, which could lead to soldering defects or other risks.

■ Storage Instructions

- ◆ The product storage environment temperature shall be between 5 and 35°C, with humidity below 65% relative humidity, and humidity should be maintained at the lowest possible level.
- ◆ The product must be stored in a clean, dry environment free from harmful gases.
- ◆ Prior to use, the product must not be removed from its tape packaging.
- ◆ Under the aforementioned storage conditions, the product may be retained for one year.
- ◆ Products over one year old should be inspected for surface oxidation and subjected to welding tests.

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■ Revise the curriculum vitae:

Version number	Revision date	Modified content	Reason for modification	Amendment	Reviewer
Ho-A0	2025-10-20	Initial Public Offering	/	YongKang Huang	YiWenLen