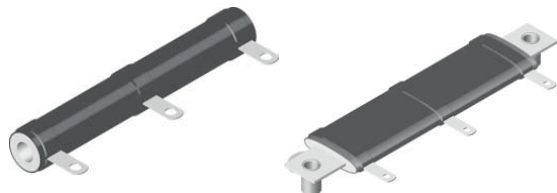




# Wirewound Resistors, Industrial Power, Tapped Tubular



## FEATURES

- Fixed taps for voltage dividers
- High temperature silicon coating
- Complete welded construction
- Excellent stability in operation (< 3 % change in resistance)
- Can be used as multi-tap resistor
- Material categorization:  
for definitions of compliance please see [www.vishay.com/doc?99912](http://www.vishay.com/doc?99912)



RoHS\* Available

HALOGEN FREE Available

GREEN (5-2008) Available

### Note

\* This datasheet provides information about parts that are RoHS-compliant and/or parts that are non-RoHS-compliant. For example, parts with lead (Pb) terminations are not RoHS-compliant. Please see the information / tables in this datasheet for details.

## STANDARD ELECTRICAL SPECIFICATIONS

GLOBAL MODEL	HISTORICAL MODEL	POWER RATING $P_{25\text{ }^\circ\text{C}}$ W	RESISTANCE RANGE TOTAL RESISTANCE WITH ONE TAP $\Omega$	TOLERANCE $\pm \%$	WEIGHT (typical) g
HLT015	HLT-15	15	0.1 to 18K	10	8.64
HLT020	HLT-20	20	0.1 to 31K	10	12.57
HLT025	HLT-25	25	0.1 to 34K	10	20.72
HLT026	HLT-26	26	0.1 to 59K	10	15.34
HLT050	HLT-50	50	0.1 to 104K	10	42.08
HLT051	HLT-51	51	0.1 to 112K	10	51.96
HLT055	HLT-55	55	0.1 to 49K	10	60.48
HLT060	HLT-60	60	0.1 to 136K	10	65.64
HLT065	HLT-65	65	0.1 to 159K	10	64.82
HLT070	HLT-70	70	0.1 to 72K	10	60.48
HLT080	HLT-80	80	0.1 to 164K	10	121.58
HLT095	HLT-95	95	0.1 to 96K	10	76.51
HLT100	HLT-100	100	0.1 to 253K	10	91.37
HLT120	HLT-120	120	0.1 to 305K	10	183.82
HLT130	HLT-130	130	0.1 to 358K	10	192.36
HLT160	HLT-160	160	0.1 to 446K	10	245.86
HLT175	HLT-175	175	0.1 to 481K	10	250.80
HLT225	HLT-225	225	0.1 to 622K	10	309.97

## TECHNICAL SPECIFICATIONS

PARAMETER	UNIT	HLT RESISTOR CHARACTERISTICS
Temperature Coefficient	ppm/°C	$\pm 30$ for 10 $\Omega$ and above; $\pm 50$ for 1.0 $\Omega$ to 9.9 $\Omega$ ; $\pm 90$ for 0.1 $\Omega$ to 0.99 $\Omega$
Dielectric Withstanding Voltage	$V_{AC}$	1000, from terminal to mounting hardware
Short Time Overload	-	10 x rated power for 5 s
Maximum Working Voltage	V	$(P \times R)^{1/2}$
Insulation Resistance	$\Omega$	1000 M $\Omega$ minimum dry, 100 M $\Omega$ minimum after moisture test
Operating Temperature Range	°C	-55 to +350

## GLOBAL PART NUMBER INFORMATION

Global Part Numbering example: HLT12007Z150R0KJ

H	L	T	1	2	0	0	7	Z	1	5	0	R	0	K	J		
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GLOBAL MODEL	TERMINAL DESIGNATION	TERMINAL FINISH	RESISTANCE VALUE	TOLERANCE	PACKAGING CODE	SPECIAL
HLT120 (see "Standard Electrical Specifications" table above for additional P/N's)	02 06 07 09 14 15 16	E = lead (Pb)-free Z = tin / lead N = nickel	R = decimal K = thousand 10R00 = 10.0 $\Omega$ 1K000 = 1 k $\Omega$	K = $\pm 10.0 \%$	E = lead (Pb)-free skin pack J <sup>(1)</sup> = skin pack (J01)	(dash number) (up to 2 digits) from 1 to 99 as applicable

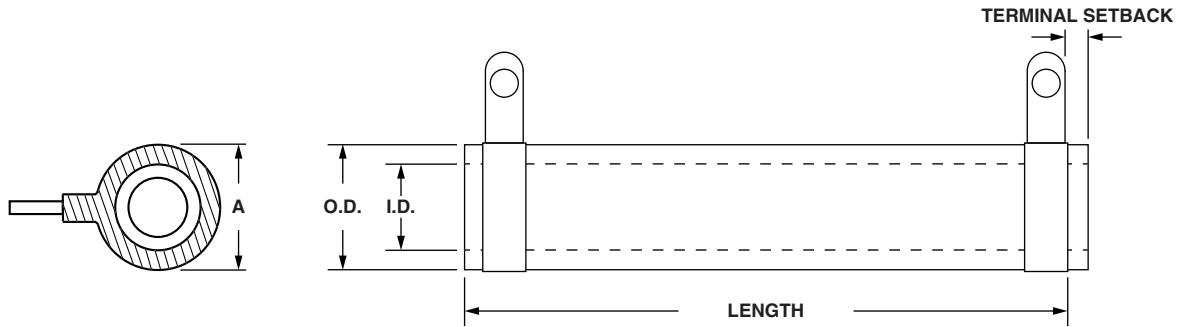
Note  
<sup>(1)</sup> Tin / lead for type "Z", lead (Pb)-free for type "N"

Historical Part Numbering example: HLT-120-07Z 150  $\Omega$  10 % J01

HLT-120	07Z	150 $\Omega$	10 %	J01
HISTORICAL MODEL	TERMINAL/FINISH	RESISTANCE VALUE	TOLERANCE	PACKAGING



**DIMENSIONS**



MODEL	DIMENSIONS in inches [millimeters]								
	A (max.)	CORE DIMENSIONS			TERMINAL SETBACK ± 0.031 [± 0.79]	DISTANCE BETWEEN TERMINALS (ref.)	TERMINAL DESIGNATION		BRACKET TYPE <sup>(2)</sup>
		LENGTH ± 0.062 [± 1.59]	O.D.	I.D. ± 0.031 [± 0.79]			STANDARD	OPTIONAL	
HLT015	0.563 [14.29]	1.500 [38.10]	0.438 [11.11]	0.313 [7.94]	0.094 [2.38]	0.937 [23.80]	02Z	14N	101, 203, 301
HLT020	0.563 [14.29]	2.000 [50.80]	0.438 [11.11]	0.313 [7.94]	0.094 [2.38]	1.437 [36.50]	02Z	14N	101, 203, 301
HLT025	0.688 [17.46]	2.000 [50.80]	0.563 [14.29]	0.313 [7.94]	0.094 [2.38]	1.312 [33.32]	06Z	15N	101, 203, 301
HLT026	0.563 [14.29]	3.000 [76.20]	0.438 [11.11]	0.313 [7.94]	0.094 [2.38]	2.437 [61.90]	02Z	14N	101, 203, 301
HLT050	0.688 [17.46]	4.000 [101.60]	0.563 [14.29]	0.313 [7.94]	0.094 [2.38]	3.312 [84.12]	06Z	15N	101, 203, 301
HLT051	0.906 [23.02]	3.500 [88.90]	0.750 [19.05]	0.500 [12.70]	0.125 [3.18]	2.75 [69.85]	06Z	15N	102, 206, 303
HLT055	<sup>(1)</sup>	3.500 [88.90]	<sup>(1)</sup>	<sup>(1)</sup>	<sup>(1)</sup>	2.968 [75.39]	09Z	16N	<sup>(1)</sup>
HLT060	0.906 [23.02]	4.000 [101.60]	0.750 [19.05]	0.500 [12.70]	0.125 [3.18]	3.250 [82.55]	06Z	15N	102, 206, 303
HLT065	0.906 [23.02]	4.500 [114.30]	0.750 [19.05]	0.500 [12.70]	0.125 [3.18]	3.750 [95.25]	06Z	15N	102, 206, 303
HLT070	<sup>(1)</sup>	4.750 [120.65]	<sup>(1)</sup>	<sup>(1)</sup>	<sup>(1)</sup>	4.218 [107.14]	09Z	16N	<sup>(1)</sup>
HLT080	1.313 [33.34]	4.000 [101.60]	1.125 [28.58]	0.750 [19.05]	0.219 [5.56]	2.812 [71.42]	07Z	15N	103, 205, 303
HLT095	<sup>(1)</sup>	6.000 [152.40]	<sup>(1)</sup>	<sup>(1)</sup>	<sup>(1)</sup>	5.468 [138.89]	09Z	16N	<sup>(1)</sup>
HLT100	0.906 [23.02]	6.500 [165.10]	0.750 [19.05]	0.500 [12.70]	0.125 [3.18]	5.750 [146.05]	06Z	15N	102, 206, 303
HLT120	1.313 [33.34]	6.000 [152.40]	1.125 [28.58]	0.750 [19.05]	0.219 [5.56]	4.812 [122.23]	07Z	15N	103, 205, 303
HLT130	1.313 [33.34]	6.500 [165.10]	1.125 [28.58]	0.750 [19.05]	0.219 [5.56]	5.312 [134.93]	07Z	15N	103, 205, 303
HLT160	1.313 [33.34]	8.000 [203.20]	1.125 [28.58]	0.750 [19.05]	0.219 [5.56]	6.812 [173.03]	07Z	15N	103, 205, 303
HLT175	1.313 [33.34]	8.500 [215.90]	1.125 [28.58]	0.750 [19.05]	0.219 [5.56]	7.312 [185.73]	07Z	15N	103, 205, 303
HLT225	1.313 [33.34]	10.500 [266.70]	1.125 [28.58]	0.750 [19.05]	0.219 [5.56]	9.312 [236.53]	07Z	15N	103, 205, 303

**Notes**

- <sup>(1)</sup> HLT055, HLT070, and HLT095 are HL Flat style, see HL Flat datasheet for detail dimensions.
- <sup>(2)</sup> Brackets are available for mounting HLT series resistors - see Mounting Hardware section below.

**TERMINAL DIMENSIONS**



DIMENSION	TERMINAL STYLE						
	02	06	07	09	14	15	16
A	0.188 [4.76]	0.250 [6.35]	0.375 [9.53]	0.188 [4.76]	0.188 [4.76]	0.250 [6.35]	0.188 [4.76]
B	0.406 [10.32]	0.563 [14.29]	0.625 [15.88]	0.500 [12.70]	0.563 [14.29]	0.594 [15.08]	0.563 [14.29]
C	0.093 [2.36]	0.166 [4.22]	0.173 [4.39]	0.104 [2.64]	0.050 [1.27]	0.065 [1.65]	0.050 [1.27]
D	0.020 [0.51]	0.020 [0.51]	0.020 [0.51]	0.020 [0.51]	0.020 [0.51]	0.031 [0.79]	0.020 [0.51]

**MOUNTING HARDWARE**

Mounting hardware is available for HLT resistors, see "HL Brackets and Sliders" datasheet for more information ([www.vishay.com/doc?30279](http://www.vishay.com/doc?30279)).

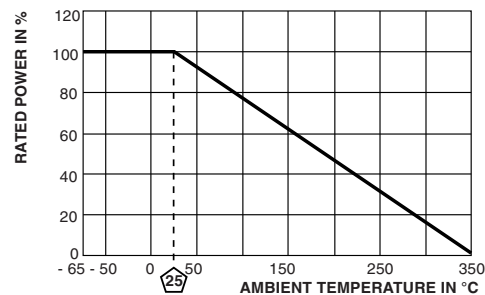
**MATERIAL SPECIFICATIONS**

- Element:** copper-nickel alloy or nickel-chrome alloy, depending on resistance value
- Core:** ceramic, steatite
- Coating:** special high temperature silicone
- Standard Terminals:** model "E" terminals are tinned steel
- Terminal Bands:** steel
- Part Marking:** Dale, model, wattage, value, tolerance, date code

**TERMINAL FINISH**

"E" Finish - 100 % Sn coated steel. "Z" Finish - 60/40 Sn/Pb coated steel. "N" Finish - Nickel coated steel. Finish for terminal style 14 and 15 is limited to nickel plated steel (N).

**DERATING**





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