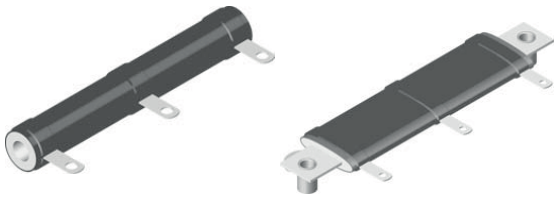
Wirewound Resistors, Industrial Power, Tapped Tubular



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

Pb-free Available

e3

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 $P_{25\,°C}$ W	RESISTANCE RANGE TOTAL RESISTANCE WITH ONE TAP Ω	TOLERANCE ± %	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	± 30 for 10 Ω and above; ± 50 for 1.0 Ω to 9.9 Ω; ± 90 for 0.1 Ω to 0.99 Ω
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	Ω	1000 MΩ minimum dry, 100 MΩ 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		

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 Ω **1K000** = 1 kΩ	**K** = ± 10.0 %	**E** = lead (Pb)-free skin pack **J** [1] = skin pack (J01)	(dash number) (up to 2 digits) from **1 to 99** as applicable

Note

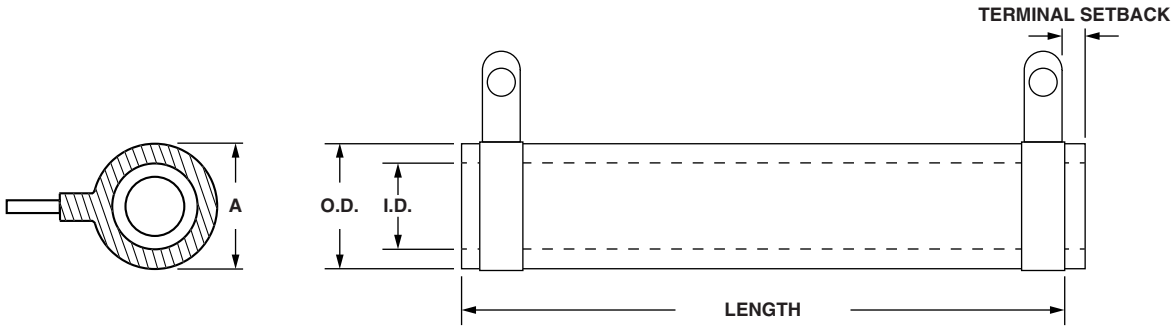
[1] Tin / lead for type "Z", lead (Pb)-free for type "N"

Historical Part Numbering example: HLT-120-07Z 150 Ω 10 % J01

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

For technical questions, contact: ww2dresistors@vishay.com

DIMENSIONS



MODEL	DIMENSIONS in inches [millimeters]								
	A (max.)	CORE DIMENSIONS			TERMINAL SETBACK ± 0.031 [± 0.79]	DISTANCE BETWEEN TERMINALS (ref.)	TERMINAL DESIGNATION		BRACKET TYPE (2)
		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	(1)	3.500 [88.90]	(1)	(1)	(1)	2.968 [75.39]	09Z	16N	(1)
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	(1)	4.750 [120.65]	(1)	(1)	(1)	4.218 [107.14]	09Z	16N	(1)
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	(1)	6.000 [152.40]	(1)	(1)	(1)	5.468 [138.89]	09Z	16N	(1)
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

(1) HLT055, HLT070, and HLT095 are HL Flat style, see HL Flat datasheet for detail dimensions.

(2) 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).

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

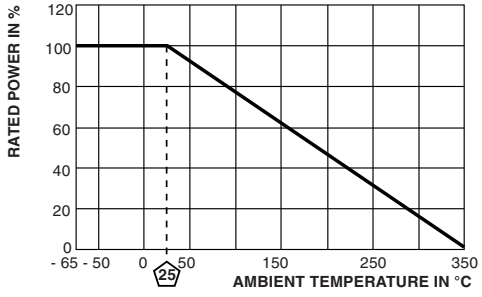
Terminal Bands: steel

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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