Wirewound Resistors, Industrial Power, Adjustable Tapped Tubular

FEATURES

- Adjustable resistor or voltage divider
- High temperature silicon coating
- Can be used to quickly obtain odd resistance values
- One or more adjustable lugs can be provided for voltage divider applications
- Can be used as multi-tap resistor

Pb-free Available

RoHS* COMPLIANT

STANDARD ELECTRICAL SPECIFICATIONS

GLOBAL MODEL	HISTORICAL MODEL	POWER RATING $P_{25\ °C}$ W	RESISTANCE RANGE Ω ± 5 %	WEIGHT (Typical) g
HLA012	HLA-12	12	1.0 - 10K	6.69
HLA020	HLA-20	20	1.0 - 18K	12.57
HLA025	HLA-25	25	1.0 - 23K	20.72
HLA026	HLA-26	26	1.0 - 31K	15.34
HLA050	HLA-50	50	1.0 - 57K	42.08
HLA051	HLA-51	51	1.0 - 95K	51.96
HLA060	HLA-60	60	1.0 - 74K	65.64
HLA065	HLA-65	65	1.0 - 130K	64.82
HLA080	HLA-80	80	1.0 - 111K	121.58
HLA100	HLA-100	100	1.0 - 132K	91.37
HLA120	HLA-120	120	1.0 - 180K	183.82
HLA130	HLA-130	130	1.0 - 192K	192.36
HLA160	HLA-160	160	1.0 - 249K	245.86
HLA175	HLA-175	175	1.0 - 398K	250.80
HLA225	HLA-225	225	1.0 - 337K	309.97

TECHNICAL SPECIFICATIONS

PARAMETER	UNIT	HLA RESISTOR CHARACTERISTICS
Temperature Coefficient	ppm/°C	± 90 for 0.1 Ω to 0.99 Ω; ± 50 for 1 Ω to 9.9 Ω; ± 30 for 10 Ω and above
Short Time Overload	-	10 × rated power for 5 seconds
Maximum Working Voltage	V	$(P \times R)^{1/2}$
Operating Temperature Range	°C	- 55/+ 350

* Short Time Overload is rated without adjustable lug attached.

MATERIAL SPECIFICATIONS

Element: Copper-nickel alloy or nickel-chrome alloy, depending on resistance range
Core: Ceramic, steatite
Coating: Special high temperature silicone

Standard Terminals: Model "Z" terminals are tinned steel
Terminal Bands: Steel
Part Marking: DALE, Model, Wattage, Value, Tolerance, Date Code

GLOBAL PART NUMBER INFORMATION

New Global Part Numbering: HLA22507Z200R0JJ (preferred part number format)

H	L	A	2	2	5	0	7	Z	2	0	0	R	0	J	J		

GLOBAL MODEL	TERMINAL DESIGNATION	TERMINAL FINISH	RESISTANCE VALUE	TOLERANCE	PACKAGING CODE	SPECIAL
HLA225 (See "Standard Electrical Specifications" table above for additional P/N's)	**02** **05** **06** **07** **14** **15**	**E** = Lead (Pb)-free **Z** = Tin/Lead **N** = Nickel	**R** = Decimal **K** = Thousand **10R00** = 10.0 Ω **1K000** = 1 kΩ	**J** = 5.0 % **K** = 10.0 %	**E** = Lead (Pb)-free skin pack **J*** = Skin pack (J01)	(Dash Number) (up to 2 digits) From **1 - 99** as applicable

* Tin/Lead for type "Z", lead (Pb)-free for type "N"

Historical Part Number example: HLA-225-07Z 200 Ω 5 % J01 (will continue to be accepted)

HLA-225	07Z	200 Ω	5 %	J01
HISTORICAL MODEL	TERMINAL/FINISH	RESISTANCE VALUE	TOLERANCE	PACKAGING

* Pb containing terminations are not RoHS compliant, exemptions may apply

For technical questions, contact: ww2bresistors@vishay.com
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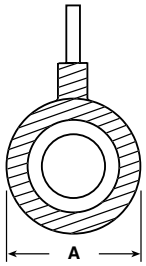
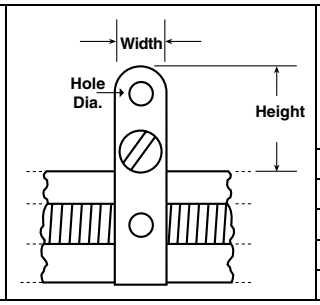
DIMENSIONS



(Includes Coating and Terminal Band)

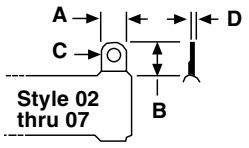
GLOBAL MODEL	DIMENSIONS in inches [millimeters]									
	A (MAX.)	CORE DIMENSIONS			TERMINAL SETBACK ± 0.31 [0.79]	DISTANCE BETWEEN TERMINALS (REF.)	TERMINAL DESIGNATION		ADJ. SLIDER	MOUNTING HARDWARE OPTIONS
		LENGTH ± 0.063 [1.59]	O.D.	I.D. ± 0.031			STANDARD	OPTIONAL		
HLA012	0.406 [10.32]	1.750 [44.45]	0.313 [7.94]	0.188 [4.76]	0.094 [2.38]	1.187	05Z	14 N	70	101, 204, 301
HLA020	0.563 [14.29]	2.000 [50.80]	0.438 [11.11]	0.313 [7.94]	0.094 [2.38]	1.437	02Z	14 N	71	101, 203, 301
HLA025	0.688 [17.46]	2.000 [50.80]	0.563 [14.29]	0.313 [7.94]	0.094 [2.38]	1.312	06Z	15 N	72	101, 203, 301
HLA026	0.563 [14.29]	3.000 [76.20]	0.438 [11.11]	0.313 [7.94]	0.094 [2.38]	2.437	02Z	14 N	71	101, 203, 301
HLA050	0.688 [17.46]	4.000 [101.60]	0.563 [14.29]	0.313 [7.94]	0.094 [2.38]	3.312	06Z	15 N	72	101, 203, 301
HLA051	0.906 [23.02]	3.500 [88.90]	0.750 [19.05]	0.500 [12.70]	0.125 [2.38]	2.75	06Z	15 N	73	102, 206, 303
HLA060	0.906 [23.02]	4.000 [101.60]	0.750 [19.05]	0.500 [12.70]	0.125 [3.18]	3.250	06Z	15 N	73	102, 206, 303
HLA065	0.906 [23.02]	4.500 [114.30]	0.750 [19.05]	0.500 [12.70]	0.125 [3.18]	3.750	06Z	15 N	73	102, 206, 303
HLA080	1.313 [33.34]	4.000 [101.60]	1.125 [28.58]	0.750 [19.05]	0.219 [5.56]	2.812	07Z	15 N	74	103, 205, 303
HLA100	0.906 [23.02]	6.500 [165.10]	0.750 [19.05]	0.500 [12.70]	0.125 [3.18]	5.750	06Z	15 N	73	102, 206, 303
HLA120	1.313 [33.34]	6.000 [152.40]	1.125 [28.58]	0.750 [19.05]	0.219 [5.56]	4.812	07Z	15 N	74	103, 205, 303
HLA130	1.313 [33.34]	6.500 [165.10]	1.125 [28.58]	0.750 [19.05]	0.219 [5.56]	5.312	07Z	15 N	74	103, 205, 303
HLA160	1.313 [33.34]	8.000 [203.20]	1.125 [28.58]	0.750 [19.05]	0.219 [5.56]	6.812	07Z	15 N	74	103, 205, 303
HLA175	1.313 [33.34]	8.500 [215.90]	1.125 [28.58]	0.750 [19.05]	0.219 [5.56]	7.312	07Z	15 N	74	103, 205, 303
HLA225	1.313 [33.34]	10.500 [266.70]	1.125 [28.58]	0.750 [19.05]	0.219 [5.56]	9.312	07Z	15 N	74	103, 205, 303

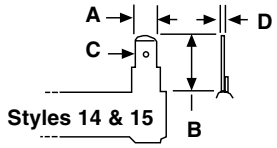
Moving Adjustable Lugs: The coating protects the resistance wire from shifting and shorting to other turns during adjustment. However, the following three steps should always be taken whenever adjustments are made:
(1) Turn off power to avoid possible operator injury and damage to the unit. (2) Loosen adjustable lug until it will slide completely free, without touching the exposed wire. (3) When adjustment point has been selected, retighten lug only enough to assure a firm contact, do not tighten beyond this point. Failure to follow these three steps in order can result in damage to the resistor.



SLIDER MODEL NUMBER	WIDTH	HEIGHT	HOLE DIAMETER
70	0.188 [4.76]	0.516 [13.10]	0.125 [3.18]
71	0.250 [6.35]	0.594 [15.08]	0.156 [3.96]
72	0.250 [6.35]	0.719 [18.26]	0.141 [3.58]
73	0.250 [6.35]	0.781 [19.84]	0.141 [3.58]
74	0.313 [7.94]	0.781 [19.84]	0.170 [4.32]

TERMINAL DIMENSIONS





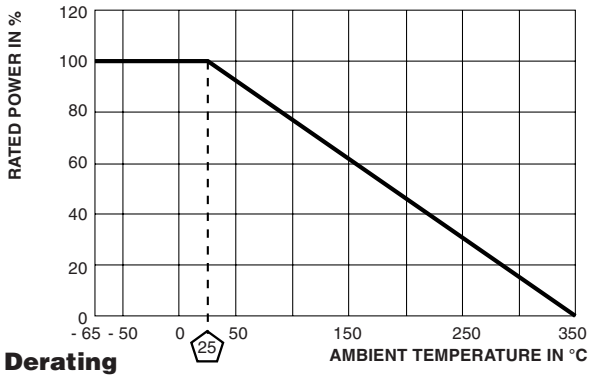
DIMENSION	TERMINAL TYPE					
	02	05	06	07	14	15
A	0.188 [4.76]	0.188 [4.76]	0.250 [6.35]	0.375 [9.53]	0.188 [4.76]	0.250 [6.35]
B	0.406 [10.32]	0.438 [11.11]	0.563 [14.29]	0.625 [15.88]	0.563 [14.29]	0.594 [15.08]
C	0.093 [2.36]	0.104 [2.64]	0.166 [4.22]	0.173 [4.39]	0.050 [1.27]	0.065 [1.65]
D	0.020 [0.51]	0.020 [0.51]	0.020 [0.51]	0.020 [0.51]	0.020 [0.51]	0.031 [0.79]

MOUNTING HARDWARE

HLA resistors use same mounting hardware as standard HL resistors, see HL data sheet for mounting hardware dimensions.

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).



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