

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

STANDARD ELECTRICAL SPECIFICATIONS

MODEL	POWER RATING $P_{25^{\circ}\text{C}}$ W	RESISTANCE RANGE Ω $\pm 5\%$	WEIGHT (Typical) g
HLA-12	12	1.0 - 10k	6.69
HLA-20	20	1.0 - 18k	12.57
HLA-25	25	1.0 - 23k	20.72
HLA-26	26	1.0 - 31k	15.34
HLA-50	50	1.0 - 57k	42.08
HLA-51	51	1.0 - 95k	51.96
HLA-60	60	1.0 - 74k	65.64
HLA-65	65	1.0 - 130k	64.82
HLA-80	80	1.0 - 111k	121.58
HLA-100	100	1.0 - 132k	91.37
HLA-120	120	1.0 - 180k	183.82
HLA-130	130	1.0 - 192k	192.36
HLA-160	160	1.0 - 249k	245.86
HLA-175	175	1.0 - 398k	250.80
HLA-225	225	1.0 - 337k	309.97

TECHNICAL SPECIFICATIONS

PARAMETER	UNIT	HLA RESISTOR CHARACTERISTICS
Temperature Coefficient	ppm/ $^{\circ}\text{C}$	± 90 for .1 Ω to .99 Ω ; ± 50 for 1 Ω to 9.9 Ω ; ± 30 for 10 Ω and above
Short Time Overload	-	10 x rated power for 5 seconds
Maximum Working Voltage	V	$(P \times R)^{1/2}$
Operating Temperature Range	$^{\circ}\text{C}$	- 55 / + 350

* Short Time Overload is rated without adjustable lug attached.

MATERIAL SPECIFICATIONS

Element: Copper-nickel alloy or nickel-chrome alloy, depending on resistance value

Core: Ceramic, steatite

Coating: Special high temperature silicone

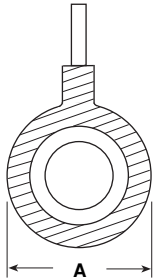
Standard Terminals: Model "Z" terminals are tinned steel

Terminal Bands: Steel

Part Marking: DALE, Model, Wattage, Value, Tolerance, Date Code

ORDERING INFORMATION

HLA-225	07	Z	200 Ω	5%
MODEL	TERMINAL	TERMINAL FINISH	RESISTANCE	TOLERANCE
			Ω	$\pm \%$

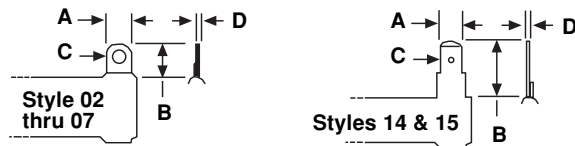
DIMENSIONS


(Includes Coating and Terminal Band)

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 ±0.062 [1.59]	O.D.	I.D. ±0.031 [0.79]			STANDARD	OPTIONAL		
HLA-12	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
HLA-20	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
HLA-25	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
HLA-26	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
HLA-50	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
HLA-51	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
HLA-60	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
HLA-65	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
HLA-80	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
HLA-100	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
HLA-120	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
HLA-130	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
HLA-160	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
HLA-175	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
HLA-225	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

Finish for terminal style 14 & 15 is limited to nickel plated steel (N), all other terminals will be steel supplied with tinned solder finish (Z).

