

## Wirewound Resistors, Industrial Power, Vitreous Coated, Adjustable Tubular


**FEATURES**

- High temperature vitreous coating
- Complete welded construction
- Tight tolerance of 5 % for values above 1  $\Omega$
- Excellent stability in operation (< 3 % change in resistance)
- Material categorization:  
for definitions of compliance please see [www.vishay.com/doc?99912](http://www.vishay.com/doc?99912)



**RoHS**  
COMPLIANT  
HALOGEN  
**FREE**  
**GREEN**  
(5-2008)

STANDARD ELECTRICAL SPECIFICATIONS					
GLOBAL MODEL	HISTORICAL MODEL	POWER RATING $P_{25^{\circ}\text{C}}$ W	RESISTANCE RANGE $\Omega$ $\pm 5\%$	RESISTANCE RANGE $\Omega$ $\pm 10\%$	WEIGHT (typical) g
AVT010	AVT-10	12	0.1 to 10.2K	0.1 to 10.2K	6.69
AVT020	AVT-20	20	1.0 to 18K	1.0 to 18K	12.57
AVT20A	-	15	1.0 to 60K	0.10 to 60K	8.64
AVT025	AVT-25	25	0.1 to 23K	0.1 to 23K	20.72
AVT25A	AVT-25A	30	0.1 to 30K	0.1 to 30K	20.72
AVT25B	AVT-25B	30	0.1 to 24K	0.1 to 24K	14.25
AVT050	AVT-50	50	0.1 to 57K	0.1 to 57K	42.08
AVT50A	AVT-50A	60	0.1 to 75K	0.1 to 75K	65.64
AVT50B	AVT-50B	70	0.1 to 84.3K	0.1 to 84.3K	64.82
AVT075	AVT-75	75	0.1 to 85.5K	0.1 to 85.5K	106.37
AVT75A	AVT-75A	90	0.1 to 114K	0.1 to 114K	183.82
AVT080	-	90	1.0 to 190K	0.10 to 190K	121.58
AVT100	AVT-100	100	0.1 to 132K	0.1 to 132K	91.37
AVT130	AVT-130	130	0.1 to 192K	0.1 to 192K	192.36
AVT160	AVT-160	175	0.1 to 398K	0.1 to 398K	250.8
AVT175	-	175	1.0 to 500K	0.10 to 500K	250.8
AVT200	AVT-200	225	0.1 to 337K	0.1 to 337K	309.97
AVT225	AVT-225	225	0.1 to 337K	0.1 to 337K	309.97



GLOBAL PART NUMBER INFORMATION																	
Global Part Numbering example: AVT02506E25R00JE (visit <a href="http://www.vishay.net">www.vishay.net</a> SAP parts manual for all options)																	
A	V	T	0	2	5	0	6	E	2	5	R	0	0	J	E		
GLOBAL MODEL (6 digits)  (see Standard Electrical Specifications Global Model column for options)	TERMINAL DESIGNATION (2 digits)  05 06 14 15 20 FC = ferrule cap	TERMINAL FINISH (1 digit)  E = lead (Pb)-free	VALUE (5 digits)  R = decimal K = thousand 1R500 = 1.5 Ω 1K500 = 1.5 kΩ	TOLERANCE (1 digit)  J = ± 5 % K = ± 10 %	PACKAGING CODE (1 digit)  E = lead (Pb)-free cell and bulk pack	SPECIAL (up to 2 digits)  (dash number) from 1 to 99 as applicable 91 = 100 style horizontal high bracket 92 = 200 style push-in bracket 93 = 300 style thru-bolt bracket NI = non-inductive NP = non-inductive + 92 style push-in bracket NH = non-inductive + 91 style horizontal bracket NV = non-inductive + style vertical bracket											
Historical Part Number example: AVT-25-25-5 %																	
AVT-25		25 Ω		5 %													
HISTORICAL MODEL		RESISTANCE VALUE		TOLERANCE		SPECIAL											

DIMENSIONS in inches (millimeters)									
MODEL	A (MAX.)	CORE DIMENSIONS			TERMINAL SETBACK ± 0.031 (0.79)	DISTANCE CENTER TO CENTER (REF.)	TERMINAL DESIGNATION		SLIDER MODEL NUMBER
		LENGTH	O.D. ± 0.031 (0.79)	I.D. ± 0.031 (0.79)			STANDARD	OPTIONAL (QUICK CONNECT)	
AVT010	0.406 (10.31)	1.750 (44.45)	0.313 (7.95)	0.188 (4.78)	0.094 (2.39)	1.375 (34.93)	05	14	70
AVT020	0.563 (14.30)	2.000 (50.8)	0.438 (11.13)	0.260 (6.60)	0.094 (2.39)	1.625 (41.28)	02	14	70
AVT20A	0.563 (14.30)	1.500 (38.10)	0.438 (11.11)	0.313 (7.94)	0.094 (2.38)	0.937 (23.80)	02	14	-
AVT025	0.668 (17.48)	2.000 (50.8)	0.563 (14.30)	0.313 (7.95)	0.094 (2.39)	1.562 (39.67)	06	15	71
AVT25A	0.906 (23.01)	2.000 (50.8)	0.750 (19.05)	0.500 (12.7)	0.094 (2.39)	1.562 (39.67)	06	15	72
AVT25B	0.770 (19.56)	2.000 (50.8)	0.625 (15.88)	0.453 (11.51)	0.094 (2.39)	1.562 (39.67)	06	15	71
AVT050	0.688 (17.48)	4.000 (101.6)	0.563 (14.30)	0.313 (7.95)	0.094 (2.39)	3.562 (90.47)	06	15	71
AVT50A	0.906 (23.01)	4.000 (101.6)	0.750 (19.05)	0.500 (12.70)	0.062 (1.57)	3.626 (92.10)	06	15	71
AVT50B	0.906 (23.01)	4.500 (114.3)	0.750 (19.05)	0.547 (13.89)	0.125 (3.18)	4.000 (101.60)	06	15	72
AVT075	0.688 (17.48)	6.000 (152.4)	0.563 (14.30)	0.313 (7.95)	0.094 (2.39)	5.562 (141.27)	06	15	71
AVT75A	0.906 (23.01)	6.000 (152.4)	0.750 (19.05)	0.500 (12.70)	0.094 (2.39)	5.562 (141.27)	06	15	72
AVT080	1.313 (33.34)	4.000 (101.6)	1.125 (28.58)	0.750 (19.05)	0.219 (5.56)	2.812 (71.42)	20	15	-
AVT100	0.906 (23.01)	6.500 (165.1)	0.750 (19.05)	0.500 (12.70)	0.125 (3.18)	6.000 (152.40)	06	15	72
AVT130	1.313 (33.35)	6.500 (165.1)	1.125 (28.58)	0.750 (19.05)	0.282 (7.16)	5.374 (136.50)	20	15	73
AVT160	1.313 (33.35)	8.500 (215.9)	1.125 (28.58)	0.750 (19.05)	0.267 (6.78)	7.404 (188.06)	20	15	73
AVT175	1.313 (33.34)	8.500 (215.9)	1.125 (28.58)	0.750 (19.05)	0.219 (5.56)	7.312 (185.72)	20	15	-
AVT200	1.313 (33.35)	10.500 (266.7)	1.125 (28.58)	0.750 (19.05)	0.266 (6.76)	9.406 (238.91)	20	15	73

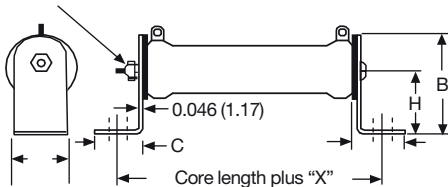
TERMINAL DIMENSIONS in inches (millimeters)							
DIMENSIONS	TERMINAL STYLE						
	20	02	05	06	14	15	
A	0.375 (9.53)	0.188 (4.76)	0.188 (4.76)	0.250 (6.35)	0.188 (4.76)	0.250 (6.35)	
B	0.562 (14.27)	0.393 (9.98)	0.393 (9.98)	0.500 (12.70)	0.563 (14.29)	0.594 (15.08)	
C (HOLE DIAMETER)	0.204 (5.18)	0.133 (3.38)	0.133 (3.38)	0.172 (4.36)	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)	

AVT SLIDERS-DIMENSIONS in inches (millimeters)						
	GLOBAL PART NUMBER <sup>(1)</sup> (RoHS COMPLIANT)	GLOBAL PART NUMBER FOR EXTRA SLIDERS	SLIDER MODEL TYPE	DIMENSIONS		
				WIDTH	HEIGHT	HOLE DIAMETER
	75008602E29	AVT010, AVT020	70	0.187 (4.75)	0.516 (13.11)	0.125 (3.18)
	75008603E29	AVT025, AVT25B, AVT050, AVT50A, AVT075	71	0.250 (6.35)	0.719 (18.26)	0.141 (3.58)
	75008604E29	AVT25A, AVT50B, AVT75A, AVT100	72	0.250 (6.35)	0.844 (21.44)	0.141 (3.58)
	75008605E29	AVT130, AVT160, AVT200, AVT225	73	0.312 (7.92)	0.797 (20.24)	0.170 (4.32)

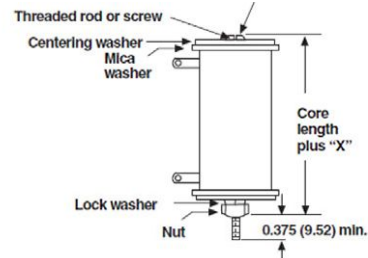
**Note**

<sup>(1)</sup> Order HEI slider with global part number.

**MOUNTING HARDWARE FOR AVT PRODUCTS** - Dimensions in inches (millimeters)

**91 = 100 Style Horizontal 1 High Bracket**


BRACKET TYPE	X	Y	Z	H	MOUNTING SLOT	C	B
101	1.063 (26.99)	0.500 (12.70)	0.950 (24.13)	1.000 (25.40)	0.219 x 0.438 (5.56 x 11.11)	0.750 (19.05)	1.375 (34.93)
102	1.063 (26.99)	0.750 (19.05)	0.859 (21.83)	1.250 (31.75)	0.219 x 0.438 (5.56 x 11.11)	0.750 (19.05)	1.750 (44.75)
103	1.063 (26.99)	1.250 (31.75)	1.000 (25.40)	1.500 (38.10)	0.281 x 0.563 (7.14 x 14.29)	0.927 (23.55)	2.125 (53.98)

**93 = 300 Style Thru-Bolt Bracket**


BRACKET TYPE	X (APPROXIMATE)	THREAD
301	0.373 (9.47)	8 to 32
302	0.271 (6.88)	8 to 32
303	0.463 (11.76)	1/4 to 20

**92 = 200 Style Push-In Bracket**


BRACKET TYPE	X	H	Y	Z	HOLE (DIA.)
202	0.478 (12.14)	0.250 (6.35)	0.125 (3.175)	0.375 (9.53)	0.170 (4.32)
203	0.583 (14.80)	0.580 (14.73)	0.188 (4.78)	0.460 (11.68)	0.115 (2.92)
204	0.700 (17.78)	0.578 (14.68)	0.250 (6.35)	0.500 (12.70)	0.156 (3.96)
205	0.846 (21.49)	0.800 (20.32)	0.375 (9.53)	0.600 (15.24)	0.343 x 0.213 (8.71 x 5.46)
206	0.846 (21.49)	0.800 (20.62)	0.375 (9.53)	0.600 (15.24)	0.343 x 0.213 (8.71 x 5.46)
207	0.700 (17.78)	1.125 (28.58)	0.500 (12.70)	0.687 (17.45)	0.250 x 0.188 (6.35 x 4.78)

**MOUNTING HARDWARE**

GLOBAL MODEL	AVAILABLE BRACKET TYPES BY MODEL		
	91 = 100 STYLE HORIZONTAL 1 HIGH BRACKET	92 = 200 STYLE PUSH-IN BRACKET	93 = 300 STYLE THRU-BOLT BRACKET
AVT010	101	202	301
AVT020	101	203	301
AVT20A	101	203	301
AVT025	102	204	301
AVT25A	102	206	302
AVT25B	102	205	301
AVT050	102	204	302
AVT50A	102	206	302
AVT50B	102	208	302
AVT075	102	204	301
AVT75A	102	206	302
AVT100	102	206	302
AVT130	103	207	302
AVT175	103	207	303
AVT200	103	207	303
AVT225	103	207	303

TECHNICAL SPECIFICATIONS		
PARAMETER	UNIT	RESISTOR CHARACTERISTICS
Power Rating	W	12 to 225
Resistance Range	$\Omega$	1 to 398K
Resistance Tolerance	%	5, 10
Temperature Coefficient	ppm/°C	$\pm 260$ for 20 $\Omega$ and above, $\pm 400$ for 1 $\Omega$ to 19.99 $\Omega$
Operating Temperature	°C	-55 °C to 350 °C
Temperature Rise	°C	325 °C above an ambient of 25 °C
Maximum Altitude	f.a.s.l.	10 000
Short-Term Overload	-	10x rated power for 5 s
Surge Windings		Available
Maximum Working Voltage	-	$(P \times R)^{0.5}$
Insulation Resistance	$\Omega$	1M
Dielectric Voltage	V <sub>RMS</sub>	1000 V <sub>AC</sub>
Creepage		Varies by wattage, see "Terminal Setback" in Dimensions table
Terminal Sleeves		n/a
Inductance	$\mu$ H	Varies by wattage and resistance
Non-Inductive Winding		Available
Terminal Strength	lb	10 lbs
Electrical or Mechanical Customization		Contact factory: <a href="mailto:ww2dresistors@vishay.com">ww2dresistors@vishay.com</a>

MATERIAL SPECIFICATIONS	
Element	Copper-nickel alloy or nickel-chrome alloy, depending on resistance value
Core	Cordierite, steatite
Coating	Special high temperature vitreous enamel
Standard Terminals	Tinned alloy 42
Optional Terminals	Alloy 42
Terminal Bands	Alloy 42
Part Marking	HEI, model, wattage, value, tolerance, date code





## **Disclaimer**

ALL PRODUCT, PRODUCT SPECIFICATIONS AND DATA ARE SUBJECT TO CHANGE WITHOUT NOTICE TO IMPROVE RELIABILITY, FUNCTION OR DESIGN OR OTHERWISE.

Vishay Intertechnology, Inc., its affiliates, agents, and employees, and all persons acting on its or their behalf (collectively, "Vishay"), disclaim any and all liability for any errors, inaccuracies or incompleteness contained in any datasheet or in any other disclosure relating to any product.

Vishay makes no warranty, representation or guarantee regarding the suitability of the products for any particular purpose or the continuing production of any product. To the maximum extent permitted by applicable law, Vishay disclaims (i) any and all liability arising out of the application or use of any product, (ii) any and all liability, including without limitation special, consequential or incidental damages, and (iii) any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.

Statements regarding the suitability of products for certain types of applications are based on Vishay's knowledge of typical requirements that are often placed on Vishay products in generic applications. Such statements are not binding statements about the suitability of products for a particular application. It is the customer's responsibility to validate that a particular product with the properties described in the product specification is suitable for use in a particular application. Parameters provided in datasheets and / or specifications may vary in different applications and performance may vary over time. All operating parameters, including typical parameters, must be validated for each customer application by the customer's technical experts. Product specifications do not expand or otherwise modify Vishay's terms and conditions of purchase, including but not limited to the warranty expressed therein.

Except as expressly indicated in writing, Vishay products are not designed for use in medical, life-saving, or life-sustaining applications or for any other application in which the failure of the Vishay product could result in personal injury or death. Customers using or selling Vishay products not expressly indicated for use in such applications do so at their own risk. Please contact authorized Vishay personnel to obtain written terms and conditions regarding products designed for such applications.

No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document or by any conduct of Vishay. Product names and markings noted herein may be trademarks of their respective owners.

## Данный компонент на территории Российской Федерации

### Вы можете приобрести в компании MosChip.

Для оперативного оформления запроса Вам необходимо перейти по данной ссылке:

<http://moschip.ru/get-element>

Вы можете разместить у нас заказ для любого Вашего проекта, будь то серийное производство или разработка единичного прибора.

В нашем ассортименте представлены ведущие мировые производители активных и пассивных электронных компонентов.

Нашей специализацией является поставка электронной компонентной базы двойного назначения, продукции таких производителей как XILINX, Intel (ex.ALTERA), Vicor, Microchip, Texas Instruments, Analog Devices, Mini-Circuits, Amphenol, Glenair.

Сотрудничество с глобальными дистрибьюторами электронных компонентов, предоставляет возможность заказывать и получать с международных складов практически любой перечень компонентов в оптимальные для Вас сроки.

На всех этапах разработки и производства наши партнеры могут получить квалифицированную поддержку опытных инженеров.

Система менеджмента качества компании отвечает требованиям в соответствии с ГОСТ Р ИСО 9001, ГОСТ РВ 0015-002 и ЭС РД 009

### Офис по работе с юридическими лицами:

105318, г.Москва, ул.Щербаковская д.3, офис 1107, 1118, ДЦ «Щербаковский»

Телефон: +7 495 668-12-70 (многоканальный)

Факс: +7 495 668-12-70 (доб.304)

E-mail: [info@moschip.ru](mailto:info@moschip.ru)

Skype отдела продаж:

moschip.ru

moschip.ru\_4

moschip.ru\_6

moschip.ru\_9