

## 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<br>$P_{25^{\circ}\text{C}}$<br>W | RESISTANCE RANGE<br>$\Omega$<br>$\pm 5\%$ | RESISTANCE RANGE<br>$\Omega$<br>$\pm 10\%$ | WEIGHT (typical)<br>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<br>(6 digits)  | TERMINAL DESIGNATION<br>(2 digits)             |                  | TERMINAL FINISH<br>(1 digit) | VALUE<br>(5 digits)  |   | TOLERANCE<br>(1 digit)  | PACKAGING CODE<br>(1 digit)           |   | SPECIAL<br>(up to 2 digits)  |   |   |   |   |   |   |  |  |
| (see Standard Electrical Specifications Global Model column for options)  | 05<br>06<br>14<br>15<br>20<br>FC = ferrule cap |                  | E = lead (Pb)-free           | R = decimal<br>K = thousand<br>1R500 = 1.5 Ω<br>1K500 = 1.5 kΩ |   | J = ± 5 %<br>K = ± 10 % | E = lead (Pb)-free cell and bulk pack |   | (dash number) from 1 to 99 as applicable<br>91 = 100 style horizontal high bracket<br>92 = 200 style push-in bracket<br>93 = 300 style thru-bolt bracket<br>NI = non-inductive<br>NP = non-inductive + 92 style push-in bracket<br>NH = non-inductive + 91 style horizontal bracket<br>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<br>(MAX.)      | CORE DIMENSIONS   |                           |                           | TERMINAL<br>SETBACK<br>± 0.031<br>(0.79) | DISTANCE<br>CENTER TO<br>CENTER<br>(REF.) | TERMINAL DESIGNATION |                                | SLIDER<br>MODEL<br>NUMBER |
|                                    |                  | LENGTH            | O.D.<br>± 0.031<br>(0.79) | I.D.<br>± 0.031<br>(0.79) |  |   | STANDARD             | OPTIONAL<br>(QUICK<br>CONNECT) |                           |
| AVT010                             | 0.406<br>(10.31) | 1.750<br>(44.45)  | 0.313<br>(7.95)           | 0.188<br>(4.78)           | 0.094<br>(2.39)                          | 1.375<br>(34.93)                          | 05                   | 14                             | 70                        |
| AVT020                             | 0.563<br>(14.30) | 2.000<br>(50.8)   | 0.438<br>(11.13)          | 0.260<br>(6.60)           | 0.094<br>(2.39)                          | 1.625<br>(41.28)                          | 02                   | 14                             | 70                        |
| AVT20A                             | 0.563<br>(14.30) | 1.500<br>(38.10)  | 0.438<br>(11.11)          | 0.313<br>(7.94)           | 0.094<br>(2.38)                          | 0.937<br>(23.80)                          | 02                   | 14                             | -                         |
| AVT025                             | 0.668<br>(17.48) | 2.000<br>(50.8)   | 0.563<br>(14.30)          | 0.313<br>(7.95)           | 0.094<br>(2.39)                          | 1.562<br>(39.67)                          | 06                   | 15                             | 71                        |
| AVT25A                             | 0.906<br>(23.01) | 2.000<br>(50.8)   | 0.750<br>(19.05)          | 0.500<br>(12.7)           | 0.094<br>(2.39)                          | 1.562<br>(39.67)                          | 06                   | 15                             | 72                        |
| AVT25B                             | 0.770<br>(19.56) | 2.000<br>(50.8)   | 0.625<br>(15.88)          | 0.453<br>(11.51)          | 0.094<br>(2.39)                          | 1.562<br>(39.67)                          | 06                   | 15                             | 71                        |
| AVT050                             | 0.688<br>(17.48) | 4.000<br>(101.6)  | 0.563<br>(14.30)          | 0.313<br>(7.95)           | 0.094<br>(2.39)                          | 3.562<br>(90.47)                          | 06                   | 15                             | 71                        |
| AVT50A                             | 0.906<br>(23.01) | 4.000<br>(101.6)  | 0.750<br>(19.05)          | 0.500<br>(12.70)          | 0.062<br>(1.57)                          | 3.626<br>(92.10)                          | 06                   | 15                             | 71                        |
| AVT50B                             | 0.906<br>(23.01) | 4.500<br>(114.3)  | 0.750<br>(19.05)          | 0.547<br>(13.89)          | 0.125<br>(3.18)                          | 4.000<br>(101.60)                         | 06                   | 15                             | 72                        |
| AVT075                             | 0.688<br>(17.48) | 6.000<br>(152.4)  | 0.563<br>(14.30)          | 0.313<br>(7.95)           | 0.094<br>(2.39)                          | 5.562<br>(141.27)                         | 06                   | 15                             | 71                        |
| AVT75A                             | 0.906<br>(23.01) | 6.000<br>(152.4)  | 0.750<br>(19.05)          | 0.500<br>(12.70)          | 0.094<br>(2.39)                          | 5.562<br>(141.27)                         | 06                   | 15                             | 72                        |
| AVT080                             | 1.313<br>(33.34) | 4.000<br>(101.6)  | 1.125<br>(28.58)          | 0.750<br>(19.05)          | 0.219<br>(5.56)                          | 2.812<br>(71.42)                          | 20                   | 15                             | -                         |
| AVT100                             | 0.906<br>(23.01) | 6.500<br>(165.1)  | 0.750<br>(19.05)          | 0.500<br>(12.70)          | 0.125<br>(3.18)                          | 6.000<br>(152.40)                         | 06                   | 15                             | 72                        |
| AVT130                             | 1.313<br>(33.35) | 6.500<br>(165.1)  | 1.125<br>(28.58)          | 0.750<br>(19.05)          | 0.282<br>(7.16)                          | 5.374<br>(136.50)                         | 20                   | 15                             | 73                        |
| AVT160                             | 1.313<br>(33.35) | 8.500<br>(215.9)  | 1.125<br>(28.58)          | 0.750<br>(19.05)          | 0.267<br>(6.78)                          | 7.404<br>(188.06)                         | 20                   | 15                             | 73                        |
| AVT175                             | 1.313<br>(33.34) | 8.500<br>(215.9)  | 1.125<br>(28.58)          | 0.750<br>(19.05)          | 0.219<br>(5.56)                          | 7.312<br>(185.72)                         | 20                   | 15                             | -                         |
| AVT200                             | 1.313<br>(33.35) | 10.500<br>(266.7) | 1.125<br>(28.58)          | 0.750<br>(19.05)          | 0.266<br>(6.76)                          | 9.406<br>(238.91)                         | 20                   | 15                             | 73                        |

| TERMINAL DIMENSIONS in inches (millimeters) |                  |                 |                 |                  |                  |                  |  |
|---|------------------|-----------------|-----------------|------------------|------------------|------------------|--|
| DIMENSIONS                                  | TERMINAL STYLE   |                 |                 |                  |                  |                  |  |
|   | 20               | 02              | 05              | 06               | 14               | 15               |  |
| A   | 0.375<br>(9.53)  | 0.188<br>(4.76) | 0.188<br>(4.76) | 0.250<br>(6.35)  | 0.188<br>(4.76)  | 0.250<br>(6.35)  |  |
| B   | 0.562<br>(14.27) | 0.393<br>(9.98) | 0.393<br>(9.98) | 0.500<br>(12.70) | 0.563<br>(14.29) | 0.594<br>(15.08) |  |
| C (HOLE DIAMETER)                           | 0.204<br>(5.18)  | 0.133<br>(3.38) | 0.133<br>(3.38) | 0.172<br>(4.36)  | 0.050<br>(1.27)  | 0.065<br>(1.65)  |  |
| D   | 0.020<br>(0.51)  | 0.020<br>(0.51) | 0.020<br>(0.51) | 0.020<br>(0.51)  | 0.020<br>(0.51)  | 0.031<br>(0.79)  |  |

| AVT SLIDERS-DIMENSIONS in inches (millimeters) |   |  |                         |              |               |                  |
|--|---|--|-------------------------|--------------|---------------|------------------|
|  | GLOBAL PART NUMBER <sup>(1)</sup><br>(RoHS COMPLIANT) | GLOBAL PART NUMBER<br>FOR EXTRA<br>SLIDERS   | SLIDER<br>MODEL<br>TYPE | DIMENSIONS   |               |                  |
|  |   |  |                         | WIDTH        | HEIGHT        | HOLE<br>DIAMETER |
|  | 75008602E29   | AVT010, AVT020                               | 70                      | 0.187 (4.75) | 0.516 (13.11) | 0.125 (3.18)     |
|  | 75008603E29   | AVT025, AVT25B,<br>AVT050, AVT50A,<br>AVT075 | 71                      | 0.250 (6.35) | 0.719 (18.26) | 0.141 (3.58)     |
|  | 75008604E29   | AVT25A, AVT50B,<br>AVT75A, AVT100            | 72                      | 0.250 (6.35) | 0.844 (21.44) | 0.141 (3.58)     |
|  | 75008605E29   | AVT130, AVT160,<br>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<br>(26.99) | 0.500<br>(12.70) | 0.950<br>(24.13) | 1.000<br>(25.40) | 0.219 x 0.438<br>(5.56 x 11.11) | 0.750<br>(19.05) | 1.375<br>(34.93) |
| 102          | 1.063<br>(26.99) | 0.750<br>(19.05) | 0.859<br>(21.83) | 1.250<br>(31.75) | 0.219 x 0.438<br>(5.56 x 11.11) | 0.750<br>(19.05) | 1.750<br>(44.75) |
| 103          | 1.063<br>(26.99) | 1.250<br>(31.75) | 1.000<br>(25.40) | 1.500<br>(38.10) | 0.281 x 0.563<br>(7.14 x 14.29) | 0.927<br>(23.55) | 2.125<br>(53.98) |

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


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

**MOUNTING HARDWARE**

| GLOBAL MODEL | AVAILABLE BRACKET TYPES BY MODEL                     |   |   |
|--------------|--|---|---|
|              | 91 = 100<br>STYLE<br>HORIZONTAL<br>1 HIGH<br>BRACKET | 92 = 200<br>STYLE<br>PUSH-IN<br>BRACKET | 93 = 300<br>STYLE<br>THRU-BOLT<br>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/ $^{\circ}$ C | $\pm 260$ for 20 $\Omega$ and above, $\pm 400$ for 1 $\Omega$ to 19.99 $\Omega$         |
| Operating Temperature                  | $^{\circ}$ C      | -55 $^{\circ}$ C to 350 $^{\circ}$ C  |
| Temperature Rise                       | $^{\circ}$ C      | 325 $^{\circ}$ C above an ambient of 25 $^{\circ}$ 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                          |





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С конца 2013 года компания активно расширяет линейку поставок компонентов по направлению коаксиальный кабель, кварцевые генераторы и конденсаторы (керамические, пленочные, электролитические), за счёт заключения дистрибьюторских договоров

Мы предлагаем:

- Конкуренспособные цены и скидки постоянным клиентам.
- Специальные условия для постоянных клиентов.
- Подбор аналогов.
- Поставку компонентов в любых объемах, удовлетворяющих вашим потребностям.
- Приемлемые сроки поставки, возможна ускоренная поставка.
- Доставку товара в любую точку России и стран СНГ.
- Комплексную поставку.
- Работу по проектам и поставку образцов.
- Формирование склада под заказчика.
- Сертификаты соответствия на поставляемую продукцию (по желанию клиента).
- Тестирование поставляемой продукции.
- Поставку компонентов, требующих военную и космическую приемку.
- Входной контроль качества.
- Наличие сертификата ISO.

В составе нашей компании организован Конструкторский отдел, призванный помогать разработчикам, и инженерам.

Конструкторский отдел помогает осуществить:

- Регистрацию проекта у производителя компонентов.
- Техническую поддержку проекта.
- Защиту от снятия компонента с производства.
- Оценку стоимости проекта по компонентам.
- Изготовление тестовой платы монтаж и пусконаладочные работы.



Тел: +7 (812) 336 43 04 (многоканальный)

Email: [org@lifeelectronics.ru](mailto:org@lifeelectronics.ru)