# Metal Alloy Resistors, Special Purpose, High Voltage

## FEATURES

- HVW and MVW are uncoated; HVX (blue flameproof coating) available on request
- High voltage (up to 15 kV)
- Semi-precision: ± 5 %, ± 10 %, ± 20 %
- Axial leads: HVW, HVX = Tinned copper
  MVW = Copper clad steel
- Lead (Pb)-free version is RoHS compliant
- Compliant to RoHS directive 2002/95/EC

Pb-free Available

e3

RoHS* COMPLIANT

## MATERIAL SPECIFICATIONS

**Element:** Metal alloy

**Core:** Alkaline earth porcelain

## STANDARD ELECTRICAL SPECIFICATIONS

| GLOBAL MODEL | HISTORICAL MODEL | POWER RATING $P_{70\,°C}$ W | MAXIMUM WORKING VOLTAGE (2) V | RESISTANCE RANGE (1) Ω |
|---|---|---|---|---|
| HVW1/2 | HVW-1/2 | 1.0 | 3.5K | 1K to 25M |
| HVX1/2 | HVX-1/2 | 1.0 | 3.5K | 1K to 25M |
| MVW1/2 | MVW-1/2 | 1.0 | 3.5K | 1K to 25M |
| HVW3/4 | HVW-3/4 | 1.5 | 7.5K | 1K to 50M |
| HVX3/4 | HVX-3/4 | 1.5 | 7.5K | 1K to 50M |
| MVW3/4 | MVW-3/4 | 1.5 | 7.5K | 1K to 50M |
| HVW001 | HVW-1 | 2.5 | 7.5K | 1K to 75M |
| HVX001 | HVX-1 | 2.5 | 7.5K | 1K to 75M |
| HVW002 | HVW-2 | 5.0 | 15.0K | 1K to 200M |
| HVX002 | HVX-2 | 5.0 | 15.0K | 1K to 200M |

**Notes**

(1) All resistance values are calibrated at 100 $V_{DC}$. Calibration at other voltages upon request.

(2) Continuous working voltage shall be $\sqrt{P \times R}$ or maximum working voltage, whichever is less.

## GLOBAL PART NUMBER INFORMATION

**New Global Part Numbering: HVW00126K40KLB (preferred part numbering format)**

| H | V | W | 0 | 0 | 1 | 2 | 6 | K | 4 | 0 | K | L | B | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

| GLOBAL MODEL | RESISTANCE VALUE | TOLERANCE CODE | PACKAGING CODE (1)(2) | SPECIAL |
|---|---|---|---|---|
| (See Standard Electrical Specifications table) | **K** = kΩ<br>**M** = MΩ<br>**1K000** = 1.0 kΩ<br>**47K00** = 47 kΩ<br>**200M0** = 200 MΩ | **J** = ± 5 %<br>**K** = ± 10 %<br>**M** = ± 20 % | **EL** = Lead (Pb)-free, lacer<br>**EK** = Lead (Pb)-free, bulk<br>**EE** = Lead (Pb)-free, reel<br>**LB** = Tin/lead, lacer<br>**BJ** = Tin/lead, bulk<br>**RC** = Tin/lead, reel | Blank = Standard<br>(Dash Number)<br>(up to 3 digits)<br>From **1 to 999**<br>as applicable |

**Historical Part Numbering: HVW-126.4K10 % (will continue to be accepted)**

| HVW-1 | 26.4 K | 10 % | L05 |
|---|---|---|---|
| HISTORICAL MODEL | RESISTANCE VALUE | TOLERANCE CODE | PACKAGING |

**Notes**

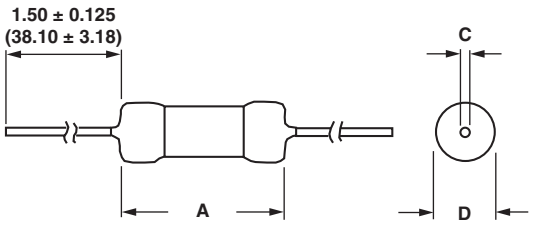
(1) MVW products do not contain lead. Use tin/lead packaging codes to specify these lead free MVW products. Use lead (Pb)-free packaging codes to specify lead (Pb)-free HVW and HVX products.

(2) Some packaging codes are model specific

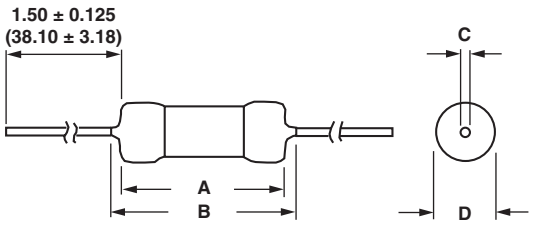
* Pb containing terminations are not RoHS compliant, exemptions may apply

## DIMENSIONS in inches (millimeters)

**HVW/MVW**
**(Uncoated)**




**HVX**
**(Silicone coated)**

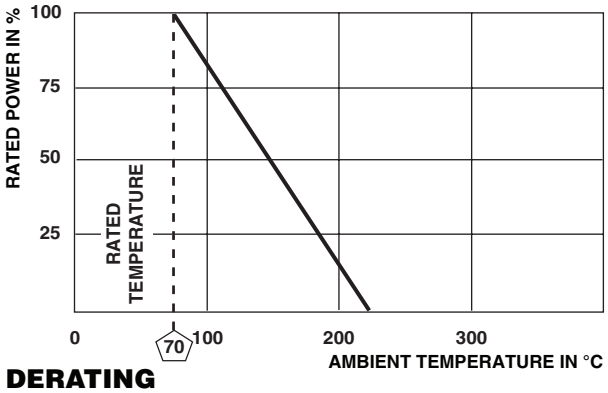



**DIMENSIONS HVW/MVW**

| GLOBAL MODEL | A | C | D (Max.) |
|---|---|---|---|
| HVW1/2 | 0.545 ± 0.015 (13.84 ± 0.38) | 0.032 ± 0.002 (0.81 ± 0.05) | 0.155 (3.94) |
| MVW1/2 | 0.545 ± 0.015 (13.84 ± 0.38) | 0.032 ± 0.002 (0.81 ± 0.05) | 0.155 (3.94) |
| HVW3/4 | 0.895 ± 0.010 (22.73 ± 0.25) | 0.032 ± 0.002 (0.81 ± 0.05) | 0.155 (3.94) |
| MVW3/4 | 0.895 ± 0.010 (22.73 ± 0.25) | 0.032 ± 0.002 (0.81 ± 0.05) | 0.155 (3.94) |
| HVW001 | 0.920 ± 0.020 (23.37 ± 0.51) | 0.032 ± 0.002 (0.81 ± 0.05) | 0.275 (6.99) |
| HVW002 | 2.080 ± 0.030 (52.83 ± 0.76) | 0.032 ± 0.002 (0.81 ± 0.05) | 0.275 (6.99) |

**DIMENSIONS HVX**

| GLOBAL MODEL | A (Max.) | B (Max.) | C | D (Max.) |
|---|---|---|---|---|
| HVX1/2 | 0.651 (16.54) | 0.680 (17.27) | 0.032 ± 0.002 (0.81 ± 0.05) | 0.180 (4.57) |
| HVX3/4 | 0.988 (25.10) | 1.062 (26.97) | 0.032 ± 0.002 (0.81 ± 0.05) | 0.180 (4.57) |
| HVX001 | 0.988 (25.10) | 1.062 (26.97) | 0.032 ± 0.002 (0.81 ± 0.05) | 0.310 (7.87) |
| HVX002 | 2.150 (54.61) | 2.200 (55.88) | 0.032 ± 0.002 (0.81 ± 0.05) | 0.310 (7.87) |




**DERATING**

**Note**

- For operation in oil or inert atmosphere derating, consult factory

**PACKAGING**

| GLOBAL MODEL | PACKAGING TYPE | PACKAGING CODE | |
|---|---|---|---|
| | | LEAD (Pb)-BEARING | LEAD (Pb)-FREE |
| MVW1/2, MVW3/4 | Lacer | n/a | LB |
| | Tape/reel | n/a | RC |
| HVW1/2, HVW3/4, HVX1/2, HVX3/4 | Lacer | LB | EL |
| | Tape/reel | RC | EE |
| HVW001, HVW002, HVX001, HVX002 | Lacer | LB | EL |

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