Componente fabricado específicamente para ofrecer un valor determinado de resistencia al paso de una corriente eléctrica.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| http://www.proteccioncivil.es/catalogo/carpeta02/carpeta24/vademecum12/vdm018ar/res1.gif | |  | | --- | | Resistencia símbolo general | | http://www.proteccioncivil.es/catalogo/carpeta02/carpeta24/vademecum12/vdm018ar/res5.gif | |  | | --- | | Resistencia símbolo general | |
| http://www.proteccioncivil.es/catalogo/carpeta02/carpeta24/vademecum12/vdm018ar/res17.gif | |  | | --- | | Resistencia no reactiva | | http://www.proteccioncivil.es/catalogo/carpeta02/carpeta24/vademecum12/vdm018ar/res18.gif | |  | | --- | | Resistencia no reactiva | |
| http://www.proteccioncivil.es/catalogo/carpeta02/carpeta24/vademecum12/vdm018ar/res2.gif | |  | | --- | | Resistencia variable | | http://www.proteccioncivil.es/catalogo/carpeta02/carpeta24/vademecum12/vdm018ar/res3.gif | |  | | --- | | Resistencia ajustable | |
| http://www.proteccioncivil.es/catalogo/carpeta02/carpeta24/vademecum12/vdm018ar/res4.gif | |  | | --- | | Resistencia ajustable | | http://www.proteccioncivil.es/catalogo/carpeta02/carpeta24/vademecum12/vdm018ar/res6.gif | |  | | --- | | Impedancia | |
| http://www.proteccioncivil.es/catalogo/carpeta02/carpeta24/vademecum12/vdm018ar/res7.gif | |  | | --- | | Potenciometro | | http://www.proteccioncivil.es/catalogo/carpeta02/carpeta24/vademecum12/vdm018ar/res10.gif | |  | | --- | | Potenciometro de contacto móvil | |
| http://www.proteccioncivil.es/catalogo/carpeta02/carpeta24/vademecum12/vdm018ar/res9.gif | |  | | --- | | Potenciometro de ajuste predeterminado | | http://www.proteccioncivil.es/catalogo/carpeta02/carpeta24/vademecum12/vdm018ar/res11.gif | |  | | --- | | Variable por escalones | |
| http://www.proteccioncivil.es/catalogo/carpeta02/carpeta24/vademecum12/vdm018ar/res8.gif | |  | | --- | | Variable de variación  continua | | http://www.proteccioncivil.es/catalogo/carpeta02/carpeta24/vademecum12/vdm018ar/res12.gif | |  | | --- | | Termistor (NTC) Coeficiente de temperatura negativo | |
| http://www.proteccioncivil.es/catalogo/carpeta02/carpeta24/vademecum12/vdm018ar/res13.gif | |  | | --- | | Termistor (PTC) Coeficiente de temperatura positivo | | http://www.proteccioncivil.es/catalogo/carpeta02/carpeta24/vademecum12/vdm018ar/res14.gif | |  | | --- | | Varistor (VDR) Resistencia dependiente de la tensión | |
| http://www.proteccioncivil.es/catalogo/carpeta02/carpeta24/vademecum12/vdm018ar/res15.gif | |  | | --- | | LDR Resistencia dependiente de la luz | | http://www.proteccioncivil.es/catalogo/carpeta02/carpeta24/vademecum12/vdm018ar/res16.gif | |  | | --- | | LDR Resistencia dependiente de la luz | |
| http://www.proteccioncivil.es/catalogo/carpeta02/carpeta24/vademecum12/vdm018ar/res19.gif | |  | | --- | | Elementos de calefación | | http://www.proteccioncivil.es/catalogo/carpeta02/carpeta24/vademecum12/vdm018ar/res20.gif | |  | | --- | | Resistencia en derivación con conexiones de  corriente y de tensíon | |
| http://www.proteccioncivil.es/catalogo/carpeta02/carpeta24/vademecum12/vdm018ar/res21.gif | |  | | --- | | Resistencia con toma de corriente | | http://www.proteccioncivil.es/catalogo/carpeta02/carpeta24/vademecum12/vdm018ar/res22.gif | |  | | --- | | Resistencia con tomas fijas | |
| http://www.proteccioncivil.es/catalogo/carpeta02/carpeta24/vademecum12/vdm018ar/res23.gif | |  | | --- | | R. dependiente de un campo magnético | | http://www.proteccioncivil.es/catalogo/carpeta02/carpeta24/vademecum12/vdm018ar/res24.gif | |  | | --- | | Atenuador | |

**Código de colores, Resistencias SMD, Series normalizadas**

|  |  |
| --- | --- |
| **Código de colores** | Bandas de colores en las Resistencias |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Colores** | **1ª Cifra** | **2ª Cifra** | **Multiplicador** | **Tolerancia** |
| Negro |  | 0 | 0 |  |
| Marrón | 1 | 1 | x 10 | +/- 1% |
| Rojo | 2 | 2 | x 102 | +/- 2% |
| Naranja | 3 | 3 | x 103 |  |
| Amarillo | 4 | 4 | x 104 |  |
| Verde | 5 | 5 | x 105 | +/- 0.5% |
| Azul | 6 | 6 | x 106 |  |
| Violeta | 7 | 7 | x 107 |  |
| Gris | 8 | 8 | x 108 |  |
| Blanco | 9 | 9 | x 109 |  |
| Oro |  |  | x 10-1 | +/- 5% |
| Plata |  |  | x 10-2 | +/- 10% |
| Sin color |  |  |  | +/- 20% |

**E**n las resistencias **SMD** ó de montaje en superficie su codificación mas usual es:

|  |  |  |
| --- | --- | --- |
| http://www.proteccioncivil.es/catalogo/carpeta02/carpeta24/vademecum12/vdm018ar/smd1.gif | 1ª Cifra = 1º número 2ª Cifra = 2º número 3ª Cifra = Multiplicador | En este ejemplo la resistencia tiene un valor de: 1200 ohmios = 1K2 |
| http://www.proteccioncivil.es/catalogo/carpeta02/carpeta24/vademecum12/vdm018ar/smd2.gif | 1ª Cifra = 1º número La " R " indica coma decimal 3ª Cifra = 2º número | En este ejemplo la resistencia tiene un valor de: 1,6 ohmios |
| http://www.proteccioncivil.es/catalogo/carpeta02/carpeta24/vademecum12/vdm018ar/smd3.gif | La " R " indica "  0. " 2ª Cifra = 2º número 3ª Cifra = 3º número | En este ejemplo la resistencia tiene un valor de: 0.22 ohmios |

**Series  IEC  E6 - E12 - E24 - E48**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **S**eries de resistencias normalizadas y comercializadas mas habituales para potencias pequeñas. Hay otras series como las  E96, E192  para usos mas especiales. | | | | | | | | | | | | | | | | | | | | | | | | |
| **E6** | 1.0 | | | | 1.5 | | | | 2.2 | | | | 3.3 | | | | 4.7 | | | | 6.8 | | | |
| **E12** | 1.0 | | 1.2 | | 1.5 | | 1.8 | | 2.2 | | 2.7 | | 3.3 | | 3.9 | | 4.7 | | 5.6 | | 6.8 | | 8.2 | |
| **E24** | 1.0 | 1.1 | 1.2 | 1.3 | 1.5 | 1.6 | 1.8 | 2.0 | 2.2 | 2.4 | 2.7 | 3.0 | 3.3 | 3.6 | 3.9 | 4.3 | 4.7 | 5.1 | 5.6 | 6.2 | 6.8 | 7.5 | 8.2 | 9.1 |
| **E48** | 1.0 | | 1.05 | | 1.10 | | 1.15 | | 1.21 | | 1.27 | | 1.33 | | 1.40 | | 1.47 | | 1.54 | | 1.62 | | 1.69 | |
| 1.78 | | 1.87 | | 1.96 | | 2.05 | | 2.15 | | 2.26 | | 2.37 | | 2.49 | | 2.61 | | 2.74 | | 2.87 | | 3.01 | |
| 3.16 | | 3.32 | | 3.48 | | 3.65 | | 3.83 | | 4.02 | | 4.22 | | 4.42 | | 4.64 | | 4.87 | | 5.11 | | 5.36 | |
| 5.62 | | 5.90 | | 6.19 | | 6.49 | | 6.81 | | 7.15 | | 7.50 | | 7.87 | | 8.25 | | 8.66 | | 9.09 | | 9.53 | |
| **T**olerancias de las series : E6 20%    E12 10%    E24 5%    E48 2% | | | | | | | | | | | | | | | | | | | | | | | | |
| **V**alores de las resistencias en http://www.proteccioncivil.es/catalogo/carpeta02/carpeta24/vademecum12/vdm018ar/omega.gif , Khttp://www.proteccioncivil.es/catalogo/carpeta02/carpeta24/vademecum12/vdm018ar/omega.gif , Mhttp://www.proteccioncivil.es/catalogo/carpeta02/carpeta24/vademecum12/vdm018ar/omega.gif IEC = Comisión eléctrica Internacional | | | | | | | | | | | | | | | | | | | | | | | | |