

Type LR Series

Key Features

- Superior quality metal film resistors with 1% tolerance and temperature coefficients down to 50 ppm. 3 case sizes are available in 0.25, 0.6, 0.75W. The LR1L series is a low ohmic value range from 0.1 to 0.82 ohm. Ideally suited where low resistance and small size are required.
- Metal film resistors have excellent stability under load and severe environmental conditions. They exhibit very low noise current and voltage coefficients. They are available in a wide range of resistance values and are suitable for general purpose and precision applications.



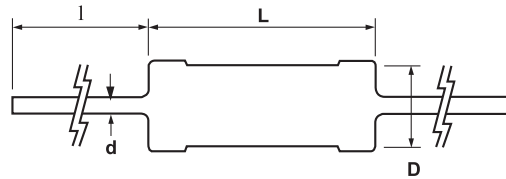
The resistive element comprises a thin film of nickel-chrome alloy evaporated onto a high thermal conductivity ceramic element. Metal end caps are force fitted to the element prior to spiralling to value. Tinned copper lead wires are welded to the end caps and the components are then coated. One coat of phenolic resin is followed by three coats of epoxy resin. All resistors are tested for value and tolerance.

Characteristics - Electrical

| | LR0204 | | LR1L | LR1 | | | LR2 | LR100 | LR200 | | |
|---------------------------------------|-------------|-------|-------|-------|------|-------|-------|-----------|-----------|-----|---|
| Rated Power @ 70°C (W) | 0.25 | | 0.5 | 0.6 | | | 0.75 | 1 | 2 | | |
| Resistance Range (Ohms) | Min | 1R0 | 10R | R10 | 1R0 | 10R | 1M1 | 1R0 | 10R | 10R | |
| | Max | 9R1 | 1M0 | R82 | 9R1 | 1M0 | 10M | 1M0 | 1M0 | 1M0 | |
| Tolerance (%) | 1 | 1 | 5 | 0.5 | 1 | 2 | 0.5 | 1 | 5 | 1 | 5 |
| Code Letter | F | F | J | D | F | G | D | F | J | F | J |
| Temp. Coefficient (ppm/°C) | ± 100 | ± 100 | ± 200 | ± 100 | ± 50 | ± 100 | ± 100 | 25/50/100 | 25/50/100 | | |
| Selection Series | E24 | E24 | E12 | E24 | E24 | E24 | E24 | E24 | E24 | | |
| On Request | | E96 | | | E96 | | E96 | E96 | E96 | | |
| Limiting Element Voltage | 200 | | 350 | 350 | | | 350 | 500 | 500 | | |
| Max Permitted Element Voltage | 200 | | 350 | 350 | | | 350 | 500 | 500 | | |
| Max Overload Voltage | 400 | | 500 | 700 | | | 700 | 1000 | 1000 | | |
| Max Intermittent Overload Voltage | 500 | | 750 | 750 | | | 750 | 1000 | 1000 | | |
| Operating Temp. Range (°C) | -55 to +155 | | | | | | | | | | |
| Climatic Category | 55/155/56 | | | | | | | | | | |
| Dielectric Strength (V) | 500 | 700 | 700 | 700 | 700 | 700 | 700 | 700 | 700 | | |
| Insulation Resistance Min Dry (Mohms) | 1000 | | | | | | | | | | |

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Dimensions



| Style | L* | D | d Nom | l |
|--------|------------|------------|-------|-----------|
| LR0204 | 3.5 +/-0.2 | 2.0 max | 0.45 | 28 +/-3.0 |
| LR1 | 6.2 +/-0.5 | 2.3 +/-0.2 | 0.55 | 28 +/-3.0 |
| LR1L | 6.2 +/-0.5 | 2.3 +/-0.2 | 0.55 | 28 +/-3.0 |
| LR2 | 9.7 +/-0.3 | 3.5 +/-0.2 | 0.55 | 28 +/-3.0 |
| LR100 | 12.0 max | 5.0 max | 0.7 | 28 +/-3.0 |
| LR200 | 12.0 max | 5.5 max | 0.7 | 28 +/-3.0 |

* Length is measured in accordance with IEC 294.

Power Derating Curve



Surface Temperature Rise Vs Load

