

Oval Flat-Wirewound Power Resistors

**When Limited Space is Required,
Choose Token's "Thin" Stackable (ZR) Resistors**

► Preview

Token oval-shaped ceramic-core resistors feature a low profile to permit installation in spaces with height restrictions.

They are also equipped with integral mounting brackets so they can be fastened to a chassis and stacked in locations with limited surface area. When properly fastened, the mounting brackets add a heat sinking benefit resulting in a smaller size per watt. Durable ZR power resistors are fully welded and coated with lead free non-flammable resin.

ZR resistors are suitable for educational modeling applications, load testing, industrial machinery, electric power distribution, instruments, automation control installations, etc.

The ZR Series is RoHS compliant and lead free. For non-standard technical requirements and custom special applications, please contact us.

Non-Inductive :

- Ayrton Perry type non-inductive winding is available. When required add "N" to the part number.

Construction :

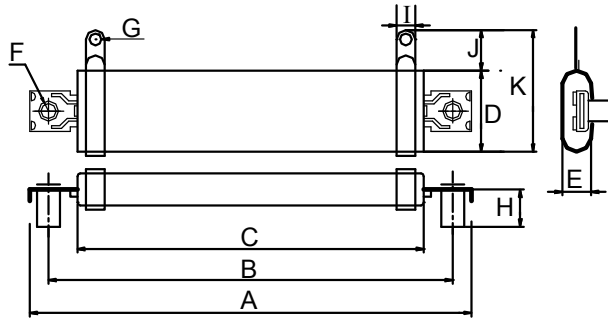
- Wirewound ZR Resistor is a flat tubular ceramic rod has two terminals and is wirewound with either copper wire or chromium alloy wire as a resistance element.
- Mainly utilized for industrial installations where height is limited. Features excellent windings, taps adding, low impedance, and PC board insertable.

Notes :

- When resistors are stacked, use washers or spacers as required to insure clearance and improve power dissipation.

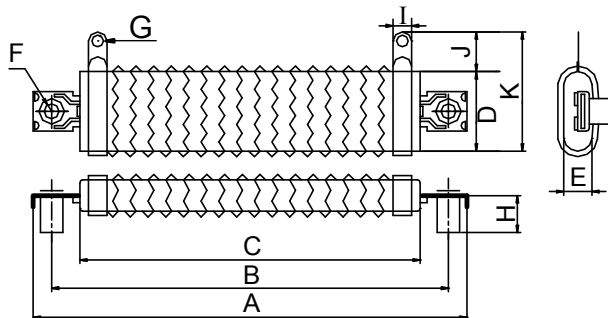


▶ Set-Type Wirewound (ZDR) 40W ~ 300W Dimensions



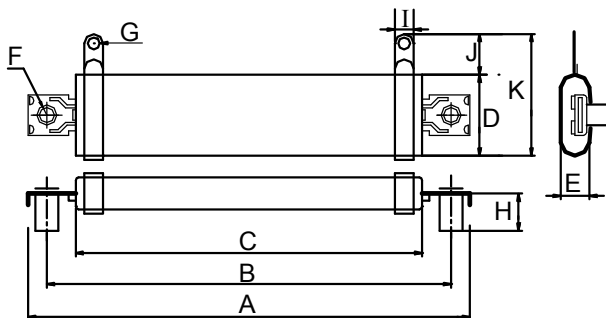
| Wattage Rating | Dimensions(mm) | | | | | | | | | | | Resistance Range(Ω) |
|----------------|----------------|-----|-----|----|----|-----|-----|----|-----|----|----|------------------------------|
| | A | B | C | D | E | F | G | H | I | J | K | |
| 40W | 83 | 70 | 50 | 28 | 11 | 5.2 | 4.1 | 13 | 6.5 | 12 | 42 | 0.1~5K Ω |
| 55W | 123 | 110 | 90 | 28 | 11 | 5.2 | 4.1 | 13 | 6.5 | 12 | 42 | 0.1~6K Ω |
| 70W | 153 | 140 | 120 | 28 | 11 | 5.2 | 4.1 | 13 | 6.5 | 12 | 42 | 0.1~7K Ω |
| 95W | 183 | 170 | 150 | 28 | 11 | 5.2 | 4.1 | 13 | 6.5 | 12 | 42 | 0.1~10K Ω |
| 100W | 193 | 180 | 160 | 28 | 11 | 5.2 | 4.1 | 13 | 6.5 | 12 | 42 | 0.1~12K Ω |
| 120W | 218 | 205 | 185 | 28 | 11 | 5.2 | 4.1 | 13 | 9 | 12 | 42 | 0.1~15K Ω |
| 150W | 218 | 205 | 185 | 35 | 11 | 5.2 | 5.2 | 13 | 9 | 13 | 48 | 0.1~18K Ω |
| 200W | 243 | 230 | 210 | 35 | 11 | 5.2 | 5.2 | 13 | 9 | 13 | 48 | 0.1~25K Ω |
| 250W | 287 | 274 | 254 | 35 | 11 | 5.2 | 5.2 | 13 | 9 | 13 | 48 | 0.1~30K Ω |
| 300W | 333 | 320 | 300 | 35 | 11 | 5.2 | 5.2 | 13 | 9 | 13 | 48 | 0.1~35K Ω |

▶ Wave-Type Wirewound (ZQR) 60W ~ 450W Dimensions



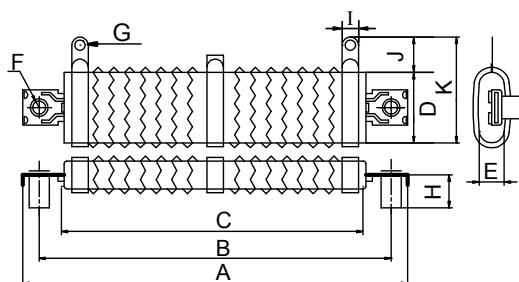
| Wattage Rating | Dimensions(mm) | | | | | | | | | | | Resistance Range(Ω) |
|----------------|----------------|-----|-----|----|----|-----|-----|----|-----|----|----|------------------------------|
| | A | B | C | D | E | F | G | H | I | J | K | |
| 60W | 83 | 70 | 50 | 28 | 11 | 5.2 | 4.1 | 13 | 6.5 | 12 | 42 | 1~4 Ω |
| 80W | 123 | 110 | 90 | 28 | 11 | 5.2 | 4.1 | 13 | 6.5 | 12 | 42 | 1~5 Ω |
| 100W | 153 | 140 | 120 | 28 | 11 | 5.2 | 4.1 | 13 | 6.5 | 12 | 42 | 1~7 Ω |
| 140W | 183 | 170 | 150 | 28 | 11 | 5.2 | 4.1 | 13 | 6.5 | 12 | 42 | 1~9 Ω |
| 150W | 193 | 180 | 160 | 28 | 11 | 5.2 | 4.1 | 13 | 6.5 | 12 | 42 | 1~10 Ω |
| 180W | 218 | 205 | 185 | 28 | 11 | 5.2 | 4.1 | 13 | 9 | 12 | 42 | 1~12 Ω |
| 225W | 218 | 205 | 185 | 35 | 11 | 5.2 | 5.2 | 13 | 9 | 13 | 48 | 1~15 Ω |
| 300W | 243 | 230 | 210 | 35 | 11 | 5.2 | 5.2 | 13 | 9 | 13 | 48 | 1~20 Ω |
| 375W | 287 | 274 | 254 | 35 | 11 | 5.2 | 5.2 | 13 | 9 | 13 | 48 | 1~25 Ω |
| 450W | 333 | 320 | 300 | 35 | 11 | 5.2 | 5.2 | 13 | 9 | 13 | 48 | 1~30 Ω |

► Set-Type Non-Inductive Wirewound (ZDN) 40W ~ 300W Dimensions



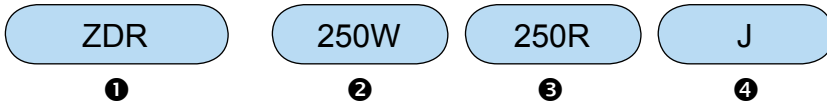
| Wattage Rating | Dimensions(mm) | | | | | | | | | | | Resistance Range(Ω) |
|----------------|----------------|-----|-----|----|----|-----|-----|----|-----|----|----|------------------------------|
| | A | B | C | D | E | F | G | H | I | J | K | |
| 40W | 83 | 70 | 50 | 28 | 11 | 5.2 | 4.1 | 13 | 6.5 | 12 | 42 | 0.1~2K Ω |
| 55W | 123 | 110 | 90 | 28 | 11 | 5.2 | 4.1 | 13 | 6.5 | 12 | 42 | 0.1~2.5K Ω |
| 70W | 153 | 140 | 120 | 28 | 11 | 5.2 | 4.1 | 13 | 6.5 | 12 | 42 | 0.1~3K Ω |
| 95W | 183 | 170 | 150 | 28 | 11 | 5.2 | 4.1 | 13 | 6.5 | 12 | 42 | 0.1~4.5K Ω |
| 100W | 193 | 180 | 160 | 28 | 11 | 5.2 | 4.1 | 13 | 6.5 | 12 | 42 | 0.1~5.5K Ω |
| 120W | 218 | 205 | 185 | 28 | 11 | 5.2 | 4.1 | 13 | 9 | 12 | 42 | 0.1~7K Ω |
| 150W | 218 | 205 | 185 | 35 | 11 | 5.2 | 5.2 | 13 | 9 | 13 | 48 | 0.1~8.5K Ω |
| 200W | 243 | 230 | 210 | 35 | 11 | 5.2 | 5.2 | 13 | 9 | 13 | 48 | 0.1~12K Ω |
| 250W | 287 | 274 | 254 | 35 | 11 | 5.2 | 5.2 | 13 | 9 | 13 | 48 | 0.1~14K Ω |
| 300W | 333 | 320 | 300 | 35 | 11 | 5.2 | 5.2 | 13 | 9 | 13 | 48 | 0.1~16K Ω |

► Wave-Type Wirewound (ZQR) 60W ~ 450W Dimensions



| Wattage Rating | Dimensions(mm) | | | | | | | | | | | Resistance Range(Ω) |
|----------------|----------------|-----|-----|----|----|-----|-----|----|-----|----|----|------------------------------|
| | A | B | C | D | E | F | G | H | I | J | K | |
| 60W | 83 | 70 | 50 | 28 | 11 | 5.2 | 4.1 | 13 | 6.5 | 12 | 42 | 1~4 Ω |
| 80W | 123 | 110 | 90 | 28 | 11 | 5.2 | 4.1 | 13 | 6.5 | 12 | 42 | 1~5 Ω |
| 100W | 153 | 140 | 120 | 28 | 11 | 5.2 | 4.1 | 13 | 6.5 | 12 | 42 | 1~7 Ω |
| 140W | 183 | 170 | 150 | 28 | 11 | 5.2 | 4.1 | 13 | 6.5 | 12 | 42 | 1~9 Ω |
| 150W | 193 | 180 | 160 | 28 | 11 | 5.2 | 4.1 | 13 | 6.5 | 12 | 42 | 1~10 Ω |
| 180W | 218 | 205 | 185 | 28 | 11 | 5.2 | 4.1 | 13 | 9 | 12 | 42 | 1~12 Ω |
| 225W | 218 | 205 | 185 | 35 | 11 | 5.2 | 5.2 | 13 | 9 | 13 | 48 | 1~15 Ω |
| 300W | 243 | 230 | 210 | 35 | 11 | 5.2 | 5.2 | 13 | 9 | 13 | 48 | 1~20 Ω |
| 375W | 287 | 274 | 254 | 35 | 11 | 5.2 | 5.2 | 13 | 9 | 13 | 48 | 1~25 Ω |
| 450W | 333 | 320 | 300 | 35 | 11 | 5.2 | 5.2 | 13 | 9 | 13 | 48 | 1~30 Ω |

▶ How to Order



❶ Part Number: ZDR
 ZQR
 ZDN
 ZQN

❷ Rated Power (W): 40W~300W
 60W~450W
 40W~300W
 60W~450W

❸ Resistance Value (Ω):

| Code | Resistance Value |
|------|------------------|
| 0R1 | 0.1Ω |
| 1R | 1Ω |
| 10R | 10Ω |
| 12R | 12Ω |
| 12K | 12KΩ |

❹ Resistance Tolerance (%)

| Code | Resistance Tolerance |
|------|----------------------|
| H | ±3% |
| J | ±5% |
| K | ±10% |

[Back to 1st Page - Wirewound Power Resistors \(ZR\)](#)