

Cement Fixed Resistors

Performance Specification

| | |
|---------------------------------|---|
| Temperature Coefficient | <20Ω: ±400PPM/°C; ≥20Ω: ±350PPM/°C |
| Short Time Overload | ±(5.0% + 0.05Ω)Max, with no evidence of mechanical damage. |
| Dielectric Withstanding Voltage | No evidence of flashover, mechanical damage, arcing or insulation breakdown. |
| Terminal Strength | No evidence of mechanical damage. |
| Resistance to Soldering Heat | ±(1.0% + 0.05Ω)Max, with no evidence of mechanical damage. |
| Solderability | Min. 95% coverage. |
| Temperature Cycling | ±(2.0% + 0.05Ω)Max, with no evidence of mechanical damage. |
| Humidity (Steady state) | ±(5.0% + 0.05Ω)Max, with no evidence of mechanical damage. |
| Load Life in Humidity | Wire-wound ±(5.0% + 0.05Ω)Max Power Film <100KΩ: ±(5.0% + 0.05Ω)Max ≥100KΩ: ±(10.0% + 0.05Ω)Max |
| Load Life | Wire-wound ±(5.0% + 0.05Ω)Max Power Film <100KΩ: ±(5.0% + 0.05Ω)Max ≥100KΩ: ±(10.0% + 0.05Ω)Max |

Ordering Procedure: Ex.: PRW 5W, +/-5%, 100Ω, B/B

P R W 0 5 W J P 1 0 1 B 0 0

Type:

PRW0 = PRW
PRWA = PRWA
PRWC = PRWC
PRC1 = PRWC-1
PRM0 = PRM
PRMA = PRMA
PRMB = PRMB
PRS0 = PRS
PRVA = PRVA
PRVB = PRVB
PZ1A = PRZA-1
PZ2A = PRZA-2
PZ3A = PRZA-3
PRZC = PRZC
PRZD = PRZD
PRT0 = PRT
PRU0 = PRU
PRWI = PRWI
TFRC = TFRC

Wattage:

1W = 1W
2W = 2W
3W = 3W
4W = 4W
5W = 5W
6W = 6W
7W = 7W
AW = 10W
BW = 11W
HW = 17W
FW = 15W
20 = 20W
25 = 25W
30 = 30W
40 = 40W

Tolerance:

J = ±5%
K = ±10%

Resistance Value:

• E-24 series:
1st digit denotes product type
W = Wire-wound type
P = Power Film type
2nd & 3rd digits are significant figures of the resistance
4th indicates the number of zeros
"J" ~ 0.1, "K" ~ 0.01
Ex. 4.7Ω ~ 47J, 4.7KΩ ~ 472

Packing Type:

B = Bulk/Box

Packing Qty:

0 = Bulk/Box

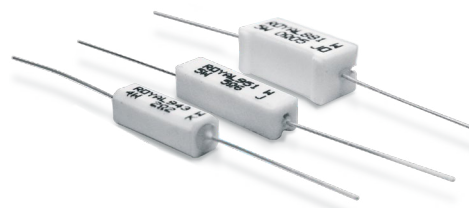
Additional Information:

0 = Standard
I = Non-inductive

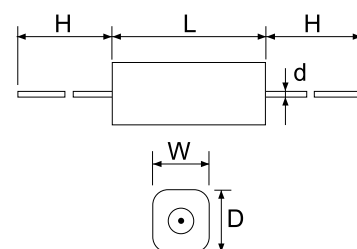
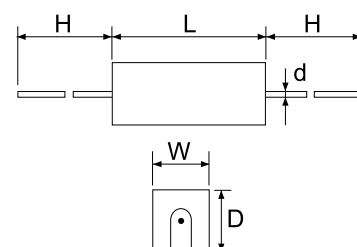
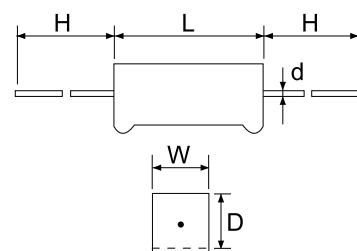
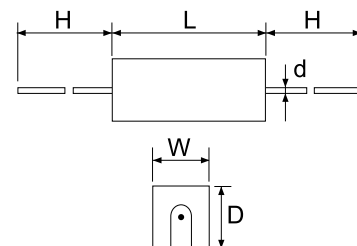
Cement Fixed Resistors

Features

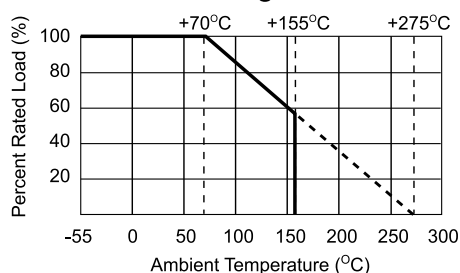
- Self extinguishing
- Excellent flame and moisture resistance
- Extremely small sturdy and mechanically safe
- Non-inductive types available for all ROYALOHM Cement Resistors
- Too low or too high ohmic values on Wire-wound & Power Film type can be supplied on a case to case basis



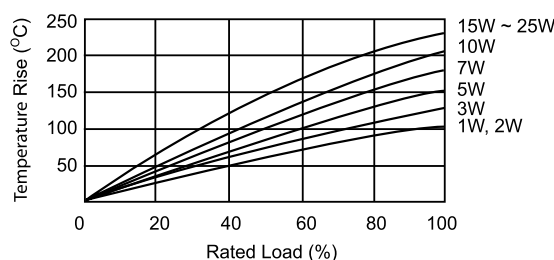
| Part No. | Style | Power Rating at 70°C | Dimension (mm) | | | | | Resistance Range | |
|---|-----------|----------------------|----------------|------|-----|--------|-----|------------------|--------------|
| | | | W±1 | D±1 | L±1 | d±0.05 | H±5 | Wire-wound | Power Film |
| PRW Type | | | | | | | | | |
| PRW01W | PRW 1W | 1W | 6 | 6 | 14 | 0.70 | 25 | 1Ω ~ 27Ω | 28Ω ~ 33KΩ |
| PRW02W | PRW 2W | 2W | 7 | 7 | 18 | 0.75 | 28 | 0.1Ω ~ 27Ω | 28Ω ~ 33KΩ |
| PRW03W | PRW 3W | 3W | 8 | 8 | 22 | 0.75 | 32 | 0.1Ω ~ 39Ω | 40Ω ~ 56KΩ |
| PRW05W | PRW 5W | 5W | 10 | 9 | 22 | 0.75 | 35 | 0.1Ω ~ 47Ω | 48Ω ~ 100KΩ |
| PRW07W | PRW 7W | 7W | 10 | 9 | 35 | 0.75 | 35 | 0.1Ω ~ 680Ω | 681Ω ~ 200KΩ |
| PRW0AW | PRW 10W | 10W | 10 | 9 | 49 | 0.75 | 35 | 0.1Ω ~ 910Ω | 911Ω ~ 200KΩ |
| PRW0FW | PRW 15W | 15W | 12.5 | 11.5 | 49 | 0.75 | 35 | 1Ω ~ 1KΩ | |
| PRW020 | PRW 20W | 20W | 14.5 | 13.5 | 60 | 0.75 | 35 | 2Ω ~ 1.2KΩ | |
| PRW025 | PRW 25W | 25W | 14.5 | 13.5 | 64 | 0.75 | 35 | 2Ω ~ 1.2KΩ | |
| PRWA Type | | | | | | | | | |
| PRWA5W | PRWA 5W | 5W | 10 | 9 | 22 | 0.75 | 35 | 0.1Ω ~ 47Ω | 48Ω ~ 100KΩ |
| PRWAAW | PRWA 10W | 10W | 10 | 9 | 49 | 0.75 | 35 | 0.1Ω ~ 910Ω | 911Ω ~ 200KΩ |
| PRWC Type | | | | | | | | | |
| PRWC1W | PRWC 1W | 1W | 5.5 | 5.5 | 12 | 0.70 | 25 | 1Ω ~ 27Ω | 28Ω ~ 33KΩ |
| PRWC2W | PRWC 2W | 2W | 6 | 6 | 18 | 0.75 | 28 | 1Ω ~ 27Ω | 28Ω ~ 33KΩ |
| PRWC3W | PRWC 3W | 3W | 6 | 6 | 20 | 0.75 | 28 | 1Ω ~ 27Ω | 28Ω ~ 33KΩ |
| PRWC5W | PRWC 5W | 5W | 6 | 6 | 25 | 0.75 | 35 | 1Ω ~ 200Ω | 201Ω ~ 100KΩ |
| PRWC7W | PRWC 7W | 7W | 9 | 9 | 25 | 0.75 | 35 | 1Ω ~ 200Ω | 201Ω ~ 100KΩ |
| PRWC-1 Type | | | | | | | | | |
| PRC14W | PRWC-1 4W | 4W | 6.4 | 6.4 | 20 | 0.70 | 28 | 1Ω ~ 200Ω | 201Ω ~ 100KΩ |
| PRC15W | PRWC-1 5W | 5W | 6.4 | 6.4 | 25 | 0.70 | 28 | 1Ω ~ 200Ω | 201Ω ~ 100KΩ |
| PRC16W | PRWC-1 6W | 6W | 6.4 | 6.4 | 38 | 0.75 | 35 | 1Ω ~ 200Ω | 201Ω ~ 100KΩ |
| Remark: Max Working Voltage: 500V Max Overload Voltage: 1,000V | | | | | | | | | |



Derating Curve



Heat Rise Chart



Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Royalohm:

[PRW025JW40JB00](#) [PRW05WJP112B00](#) [PRW05WJP910B00](#) [PRW05WJW18JB00](#) [PRW05WJW51KB00](#)
[PRW05WJW56KB00](#) [PRW0AWJP682B00](#) [PRW0AWJW13JB00](#) [PRW0AWJW240B00](#) [PRW0AWJW33JB00](#)
[PRW0AWJW680B00](#) [PRW0FWJW160B00](#) [PRW0FWJW430B00](#) [PRW0FWJW621B00](#) [PRW0FWJW680B00](#)
[PRW05WJP182B00](#) [PRW05WJW12JB00](#) [PRW05WJW150B00](#) [PRW05WJW15JB00](#) [PRW05WJW43JB00](#)
[PRW0AWJP242B00](#) [PRW0AWJP253B00](#) [PRW0AWJW111B00](#) [PRW0AWJW271B00](#) [PRW0AWJW75JB00](#)
[PRW0FWJW121B00](#) [PRW0FWJW220B00](#) [PRW0FWJW331B00](#) [PRW0FWJW501B00](#) [PRW025JW75JB00](#)
[PRW05WJP101B00](#) [PRW05WJP272B00](#) [PRW05WJP391B00](#) [PRW05WJW62JB00](#) [PRW0AWJW10JB00](#)
[PRW0AWJW12JB00](#) [PRW0AWJW220B00](#) [PRW0AWJW250B00](#) [PRW0AWJW431B00](#) [PRW0AWJW68JB00](#)
[PRW0FWJW10JB00](#) [PRW0FWJW131B00](#) [PRW0FWJW391B00](#) [PRW0FWJW560B00](#) [PRW0FWJW751B00](#)
[PRW025JW300B00](#) [PRW025JW121B00](#) [PRW025JW750B00](#) [PRW05WJP302B00](#) [PRW05WJP511B00](#)
[PRW05WJW11JB00](#) [PRW05WJW240B00](#) [PRW05WJW30JB00](#) [PRW05WJW390B00](#) [PRW0AWJP222B00](#)
[PRW0AWJW361B00](#) [PRW0FWJW150B00](#) [PRW0FWJW181B00](#) [PRW0FWJW22JB00](#) [PRW0FWJW30JB00](#)
[PRW0FWJW36JB00](#) [PRW0FWJW43JB00](#) [PRW0FWJW56JB00](#) [PRW025JW470B00](#) [PRW025JW47JB00](#)
[PRW05WJW68KB00](#) [PRW0AWJP102B00](#) [PRW0AWJW24JB00](#) [PRW0AWJW30JB00](#) [PRW0AWJW330B00](#)
[PRW0AWJW50KB00](#) [PRW0AWJW56JB00](#) [PRW0FWJW103B00](#) [PRW0FWJW361B00](#) [PRW0FWJW390B00](#)
[PRW0FWJW68JB00](#) [PRW0FWJW750B00](#) [PRW025JW181B00](#) [PRW025JW240B00](#) [PRW025JW24JB00](#)
[PRW05WJP201B00](#) [PRW05WJW30KB00](#) [PRW05WJW62KB00](#) [PRW025JW241B00](#) [PRW05WJP221B00](#)
[PRW05WJW10KB00](#) [PRW05WJW16JB00](#) [PRW05WJW330B00](#) [PRW05WJW39KB00](#) [PRW05WJW47KB00](#)
[PRW05WJW75JB00](#) [PRW0AWJP302B00](#) [PRW0AWJP502B00](#) [PRW0AWJW180B00](#) [PRW0AWJW510B00](#)
[PRW0AWJW56KB00](#) [PRW0AWJW911B00](#) [PRW0FWJW200B00](#) [PRW025JW301B00](#) [PRW05WJP471B00](#)