



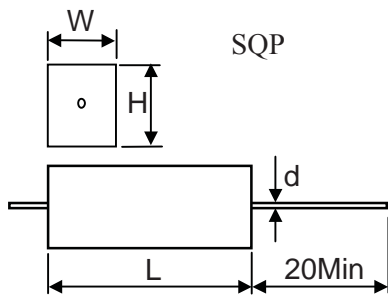
General Resistors

Cement Resistors - SQP, SQM, SQT, SQH, SQZ Series / 水泥电阻

SQ Series Resistor are made by winding resistance wires around non-alkaline ceramic core or metal oxide film rod, which is added with a layer of heat and humidity resistant and non-corrosive protective material. Token offers wide range including SQP, SQM, SQZ, and SQH.

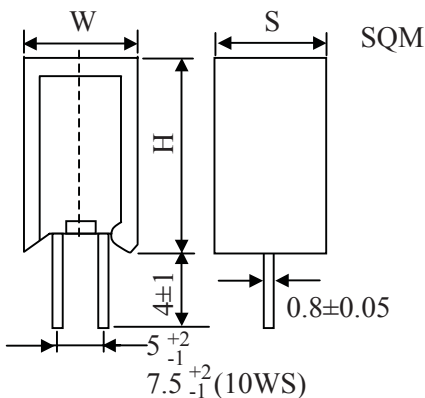


► Cement SQP Resistor Dimensions



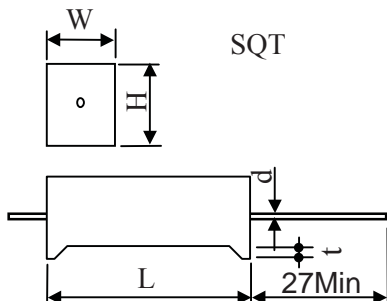
| Type | Dimension (mm) | | | | Resistance Range (Ω) | |
|---------|----------------|-----------|-------------|--------------|-------------------------------|----------|
| | W \pm 1 | H \pm 1 | L \pm 1.5 | d \pm 0.05 | SQP | RS+SQP |
| 2W | 7 | 7 | 18 | 0.5~0.6 | 0.1~82 | |
| 3W | 8 | 8 | 22 | 0.7~0.8 | 0.1~180 | 181~33K |
| 5W | 10 | 9 | 22 | 0.7~0.8 | 0.1~180 | 181~50K |
| 7W | 10 | 9 | 35 | 0.7~0.8 | 0.1~430 | 431~50K |
| 10W | 10 | 9 | 48 | 0.7~0.8 | 0.1~470 | 471~50K |
| 15W | 12.5 | 11.5 | 48 | 0.7~0.8 | 0.5~600 | 601~150K |
| 20W-25W | 14 | 13.5 | 60 | 0.7~0.8 | 0.8~1K | 1.1~150K |

► Cement SQM Resistor Dimensions



| Type | Dimension (mm) | | | Resistance Range (Ω) | |
|------|----------------|-----------|-----------|-------------------------------|---------|
| | H \pm 1.5 | W \pm 1 | S \pm 1 | SQM | RS+SQM |
| 2W | 20 | 12 | 8 | 0.1-8.0 | 81-50K |
| 3W | 25 | 12 | 8 | 0.1-180 | 181-50K |
| 5W | 25 | 13 | 9 | 0.1-180 | 181-50K |
| 7W | 39 | 13 | 9 | 0.1-430 | 431-47K |
| 10W | 51 | 13 | 12 | 0.1-470 | 471-47K |
| 10WS | 35 | 16 | 12 | 0.1-430 | 431-47K |

► Cement SQT Resistor Dimensions



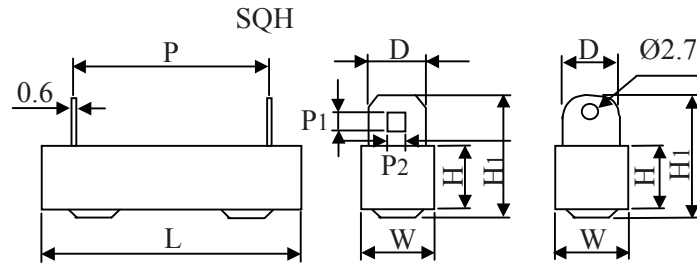
| Type | Dimension (mm) | | | | Resistance Range (Ω) | |
|------|----------------|-----------|-----------|-----------|-------------------------------|---------|
| | H \pm 1.5 | W \pm 1 | L \pm 1 | t \pm 1 | SQT | RS+SQM |
| 3W | 9 | 10 | 22 | 1.5 | 0.1-180 | 181-50K |
| 5W | 9 | 10 | 22 | 1.5 | 0.1-180 | 181-50K |
| 7W | 9 | 10 | 35 | 3.0 | 0.1-430 | 431-47K |
| 10W | 9 | 10 | 48 | 3.0 | 0.1-470 | 471-47K |





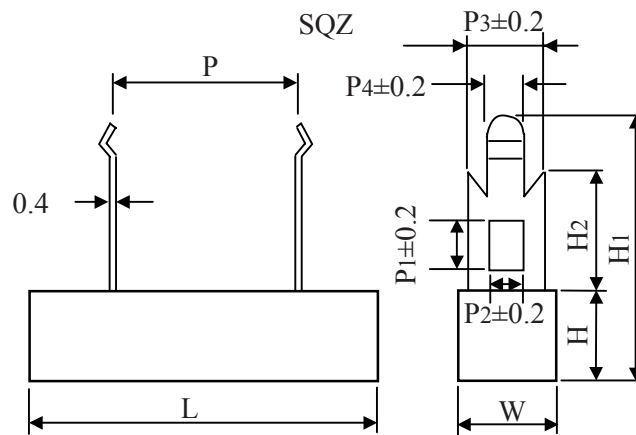
General Resistors

► Cement SQH Resistor Dimensions



| Type | Dimension (mm) | | | | | | | | Resistance Range (Ω) | | MaxWorkingVoltage |
|------|------------------|------|-------|-----|------|-------|--------|--------|----------------------|---------|-------------------|
| | W±1 | H±1 | L±1.5 | P±1 | H1±1 | D±0.5 | P1±0.2 | P2±0.2 | SQH | RS+SQH | |
| 10W | 10 | 9 | 48 | 32 | 21 | 5 | 2.5 | 2 | 0.1~500 | 500~50K | 500V |
| 15W | 12.5 | 11.5 | 48 | 32 | 21 | 5 | 2.5 | 2 | 1~1K | 1K~150K | 600V |
| 20W | 14.5 | 13.5 | 60 | 43 | 24 | 6 | 3.0 | 2.5 | 1~2K | 2K~150K | 700V |
| 30W | 19 | 19 | 75 | 56 | 29 | 6 | 3.0 | 2.5 | 1~2K | | 700V |
| 40W | 19 | 19 | 90 | 67 | 29 | 6 | 3.0 | 2.5 | 2~3K | | 700V |
| 50W | 19 | 19 | 90 | 67 | 29 | 6 | 3.0 | 2.5 | 2~3K | | 700V |

► Cement SQZ Resistor Dimensions



| Type | Dimension (mm) | | | | | | | | | | | Resistance Range (Ω) | |
|--------|----------------|------|-----|---------|-----|----|----|-----|------|------|---------|----------------------|--|
| | SQZ L±1.5 | W±1 | H±1 | P±1.5 | P1 | P2 | P3 | P4 | H1±1 | H2±1 | SQZ | RS+SQZ | |
| 5W | 25(28) | 10 | 10 | 9.5(15) | 4.2 | 2 | 5 | 1.5 | 25 | 10.5 | 0.1-130 | 131-50K | |
| 7W | 36 | 10 | 10 | 20 | 4.2 | 2 | 5 | 1.5 | 25 | 10.5 | 0.1-430 | 431-50K | |
| 10W | 48 | 10 | 10 | 32 | 4.2 | 2 | 5 | 1.5 | 25 | 10.5 | 0.2-470 | 471-50K | |
| 15W | 48 | 12.5 | 12 | 32 | 4.2 | 2 | 5 | 1.5 | 26 | 10.5 | 1-600 | 601-150K | |
| 20.25W | 60 | 15 | 13 | 42 | 7 | 6 | 10 | 2.7 | 36 | 15.0 | 1-1K | 1.1K-150K | |

► Cement Resistor Electrical Performance

| TEST ITEMS | CONDITION | SPEC. |
|--------------------------|---------------------------------------|--------------|
| Resistance Temp Coeff. | -30°C~ 200°C | ±300ppm / °C |
| Short Time Over Load | 2.5 times of rated wattage for 5 sec. | ±2 % |
| Rated Load | Rated wattage for 30 min. | ±1 % |
| Voltage Withstanding | 800 v AC 1 min. | no charge |
| Temp. Cycle | -30°C~ 85°Cfor 5 cycles | ±1 % |
| Load Life | 70°C on-off cycle 1000hrs. | ±5 % |
| Moisture-proof Load Life | 40°C95% RH on-off cycle 500 hrs. | ±5 % |
| Incombustibility | 16 times of rated wattage for 5 min. | not flammed |



General Resistors

► How to Order

SQP

❶

5W

❷

100 R

❸

J

❹

Bulk

❺

- ❶ Product type
- ❷ Rated Power
- ❸ Resistance Value (Ω)
- ❹ Resistance Tolerance
- ❺ Packaging