

# CEMENT WIREWOUND RESISTORS

(MIL TYPE LRW)

## 水泥電阻

勝特力材料 886-3-5753170  
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### MIL TYPE LRW

Mil type lrw are made by winding the resistance wires on the alkaliless ceramic cores, then coated with noncorrosive, heat-proof and humidity-proof material. Cement type is the one with special flameproof cement stuffed in the ceramic case.

### FEATURES

- Small dimension, excellent stability in high temperature, resistant to humidity and shock.
- Completely insulated character suitable for printed circuit board.
- Precision resistance values with longer life.
- In high resistance values, the winding cores will be replaced by power film cores.
- Super heat dissipation; small linear temperature coefficient.
- Instant overload capability; low noise figures and low annual shift on resistance values.

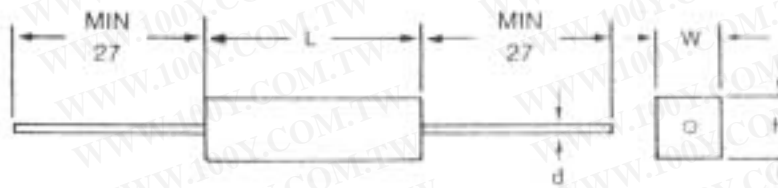
### 水泥電阻

把電阻線繞在無鹼性耐熱瓷件上，外面加上耐熱、耐濕、及耐腐蝕之材料保護固定而成。水泥型電阻是把繞線電阻體放入方形瓷器框內，用特殊不燃性耐熱水泥充填密封而成。

### 特性

- 體積小、耐震、耐濕及良好散熱，低價格
- 全絕緣，適用於印刷電路板
- 瓷棒上繞線然後點焊，製出精確電阻值
- 高電阻值採用金屬氧化膜體代替繞線方式
- 耐熱性優，電阻溫度係數小，呈直線變化
- 耐短時間超負載；低雜音，阻值

### SQP

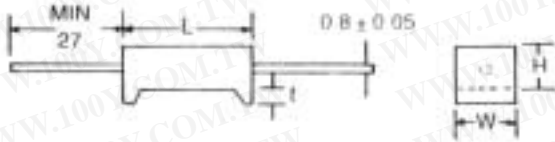


SOP	DIMENSIONS(mm)				RESISTANCE RANGE ( )		MAX WORKING VOLTAGE
	L ± 1	W ± 0.5	H ± 0.5	d ± 0.05	Wire Wound	MO	
2W	18.0	7.0	7.0	0.65	0.01 ~ 50	50~20K	150V
3W	22.0	8.0	8.0	0.8	0.01 ~ 50	50~33K	350V
5W	22.0	9.5	9.0	0.8	0.01 ~ 50	50~50K	350V
7W	35.0	9.5	9.0	0.8	0.01 ~ 500	500~50K	500V
10W	48.0	9.5	9.0	0.8	0.01 ~ 500	500~50K	750V
15W	48.0	12.5	12.0	0.9	0.01 ~ 500	500~150K	1000V
20W	60.0	14.0	13.0	0.9	0.01 ~ 500	500~150K	1000V
25W	60.0	14.0	13.0	0.9	0.01 ~ 500	500~150K	1000V

NOTE: Non-inductive type up to 27

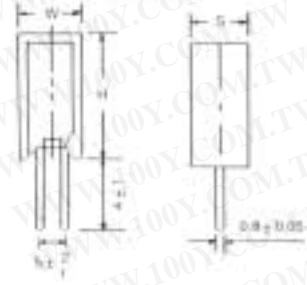
30W, 40W on request

**SQT**



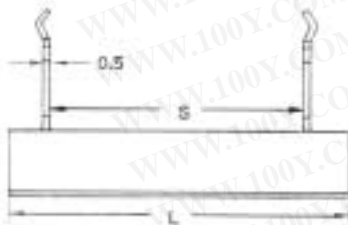
TYPE	DIMENSION(mm)				RESISTANCE RANGE ( )	
	W±1	H±1	L±1.5	t±0.5	Wire Wound	MO
SQT	W±1	H±1	L±1.5	t±0.5	Wire Wound	MO
5W	10	9	22	1.5	0.1~50	50 ~50K
7W	10	9	35	3.0	0.1~500	500 ~47K
10W	10	9	48	3.0	0.1~500	500 ~47K

**SQM**

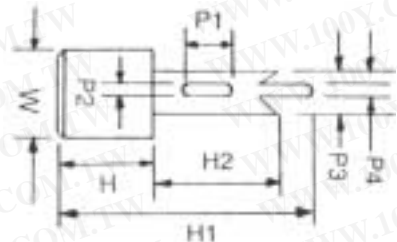


TYPE	DIMENSION(mm)			RESISTANCE RANGE ( )	
	H±1.5	W±1	S±1	Wire Wound	MO
SQM	H±1.5	W±1	S±1	Wire Wound	MO
3W	25	12	9	0.1~50	50~50K
5W	25	13	9	0.1~50	50~50K
7W	39	13	9	0.1~500	500~47K
10W	51	13	9	0.1~500	500~47K

NOTE: values lower than 0.1 OHM and higher than 47K OHM are available upon request



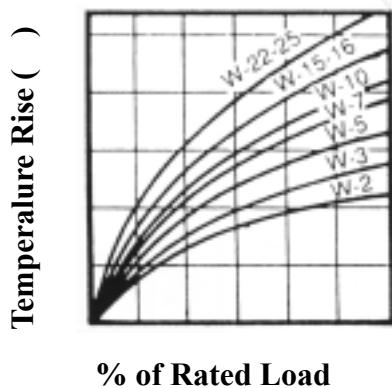
**SQZ**



TYPE	POWER RATING (W)	RESISTANCE RANGE ( )		DIMENSIONS (mm)									
		Wire Wound	MO	L	H	W	S	H1	H2	P1	P2	P3	P4
SQZ-5	5	0.1 -100	100 -50K	27.0	9.5	9.5	15.0	24.0	9.5	4.0	2.0	5.0	1.4
SQZ-7	7	0.1 -500	500 -50K	35.0	9.5	9.5	22.5	24.0	9.5	4.0	2.0	5.0	1.4
SQZ-10	10	0.2 -500	500 -50K	48.0	9.5	9.5	35.0	24.0	9.5	4.0	2.0	5.0	1.4
SQZ-15	15	0.5 -500	500 -150K	48.0	12.5	12.5	32.5	34.5	15.0	7.0	6.0	10.0	2.7
SQZ-20	20	1 -50	500 -150K	63.5	12.5	12.5	45.0	34.5	15.0	7.0	6.0	10.0	2.7
SQZ-25	25	1 -50	500 -150K	63.5	12.5	12.5	45.0	34.5	15.0	7.0	6.0	10.0	2.7

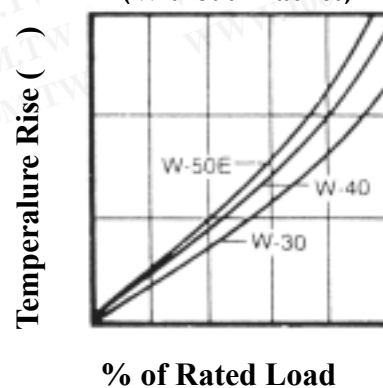
NOTE: Resistance up to 50 Ω maximum for Non-Inductive type

**TEMPERATURE RISE AT 25**



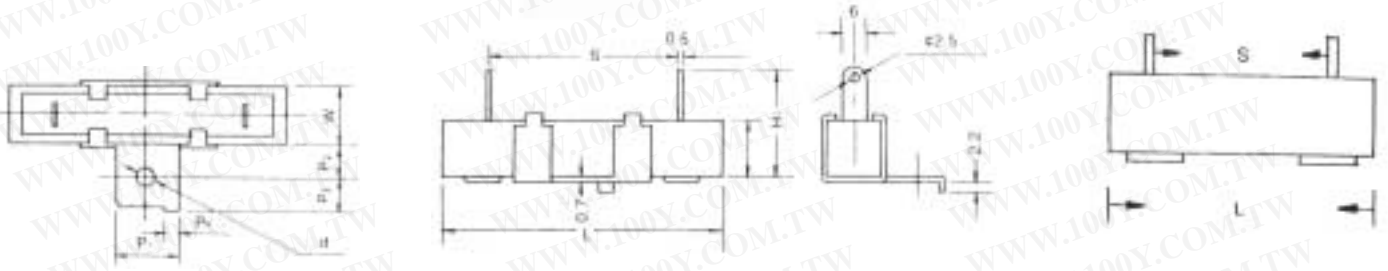
**TEMPERATURE RISE AT 25**

(Without Bracket)



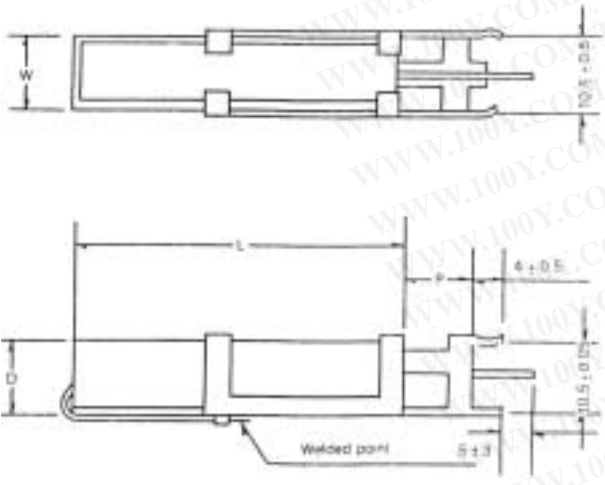
### SQHG

### SQH



TYPE	POWER RATING (W)	RESISTANCE RANGE( )		DIMENSIONS(mm)									
		WIRE WOUND	MO	L ± 2	H ± 1	W ± 1	S ± 1	H1 ± 1	P1 ± 1	P2 ± 1	P3 ± 1	P4 ± 1	d
				SQH-10	10	0.5 -500	500 -50K	48.0	10.0	10.0	33.0	21.0	12.0
SQH-15	15	1 -500	500 -150K	48.0	12.0	12.0	33.0	21.0	12.0	6.0	8.0	3.0	4.0
SQH-20	20	1 -500	500 -150K	63.7	12.0	12.0	42.0	24.0	12.0	6.0	8.0	3.0	4.0
SQH-30	30	1 -500		75.0	19.0	18.0	56.0	30.0	17.0	8.0	10.0	3.0	4.0
SQH-40	40	1 -500		90.0	19.0	18.0	68.0	30.0	17.0	8.0	10.0	3.0	4.0
SQH-50	50	1 -500		90.0	19.0	18.0	68.0	30.0	17.0	8.0	10.0	3.0	4.0

NOTE: Resistance up to 15Ω maximum for Non-Inductive type



TYPE	DIMENSION(mm)				RESISTANCE RANGE ( )	
	W ± 1	D ± 1	L ± 1	P ± 1	Wirewound	MO
SPS-5	10	9	22	5	0.1 ~50	56 ~50K
SPS-7	10	9	35	10	0.1 ~300	300 ~50K
SPS-10	10	9	48	10	0.1 ~500	500 ~50K
SPS-15	12	13	48	10	0.1 ~1K	1K ~50K
SPS-20	12	13	60	10	0.1 ~1K	1K ~50K

### ELECTRICAL PERFORMANCE

TEST ITEMS	CONDITION	SPEC.
Resistance Temp. Coeff.	-55 ~155	±300ppm/
Short Time Overload	10 times of rated wattage for 5 sec	±2%
Rated Load	Rated wattage for 30 min	±1%
Voltage Withstanding	1,000V AC 1min	no change
Insulation Resistance	500V megger	1,000M
Load Life	70 on-off cycle 1000hrs	±5%
Moisture-proof Load Life	40 95%RH on-off cycle 1000hrs	±5%
Incombustibility	16 times of rated wattage for 5 min	not flamed

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