

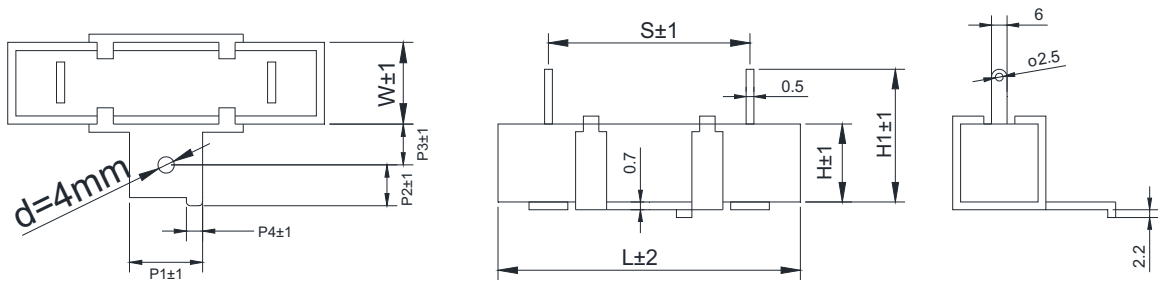
**INTRODUCTION**

Cement-Box type resistors offer a choice of resistive elements inside a white flameproof cement box. In addition to being flameproof, these resistors are also non-corrosive and humidity proof. The available resistive elements are:

- SQ \_\_\_\_ - Standard wire wound  
(all welded construction)
- MSQ \_\_\_\_ - Metal oxide core  
(low inductance, high resistance)
- NSQ \_\_\_\_ - Non-Inductively wound  
(Ayrton-Perry Method, all welded construction)

- Operating temperature range
- Wire wound : -55°C ~ + 155°C
  - Metal oxide : -30°C ~ + 155°C

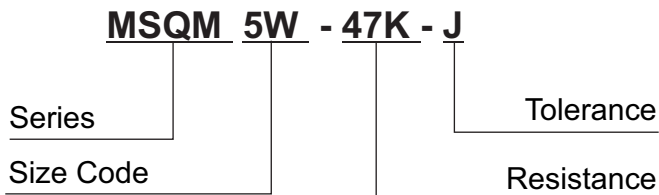
**DIMENSION (mm) & RESISTANCE RANGE**



Series	Dimension (mm)									Resistance Range	
	L	H	W	S	H1	P1	P2	P3	P4	Wire Wound	Metal Oxide
										SQ_	MSQ_
SQHG10W	48	10	10	33	21	12	6	8	3	0.39Ω ~ 300Ω	100Ω ~ 150KΩ
SQHG15W	48	12	12	33	21	12	6	8	3	0.39Ω ~ 300Ω	100Ω ~ 150KΩ
SQHG20W	63.5	12	12	42	24	12	6	8	3	0.51Ω ~ 1KΩ	100Ω ~ 150KΩ
SQHG25W	63.5	12	12	46	24	12	6	8	3	0.51Ω ~ 1KΩ	100Ω ~ 150KΩ
SQHG30W	75	19	18	56	30	17	8	10	3	0.51Ω ~ 1KΩ	100Ω ~ 150KΩ
SQHG40W	90	19	18	68	30	17	8	10	3	0.51Ω ~ 1KΩ	100Ω ~ 150KΩ
SQHG50W	90	19	18	70	30	18	8	10	3	0.51Ω ~ 1KΩ	100Ω ~ 150KΩ

- Resistance Range for standard resistance, below or over this resistance range on request.
- Non-inductive type up 50Ω only

**PART NUMBER EXAMPLE**



**RESISTANCE RANGE**

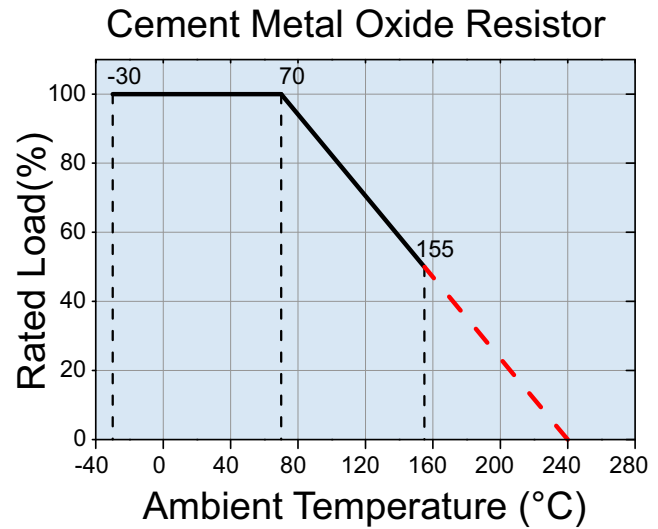
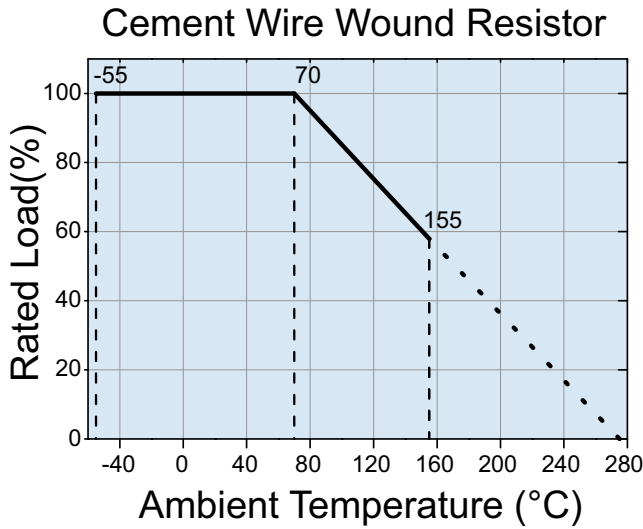
Ohms	0.22	2.0	22	220	2.2K	22K
Code	0R22	2R0	22R	220R	2K2	22K

**TOLERANCE** other tolerance on request

Tolerance	± 1%	± 2%	± 5%	± 10%
Code	F	G	J	K

NOTE: All Specifications subject to change without notice.

**POWER DERATING CURVE**



**ELECTRICAL CHARACTERISTICS**

Test Items	Method	Wire Wound	Metal Oxide
Short Time Overload	JIS-C-5202 5.5 10 times RCWV for 5 seconds	±(2%+0.05Ω)	±(0.25%+0.05Ω)
Temperature Coefficient	Resistance value at room temperature and room temperature +100°C	±400ppm	±200ppm
Load Life	JIS-C-5202 7.10 70°C at RCWV for 1000hrs (1.5hrs on; 0.5hrs off)	±(5%+0.05Ω)	±(1.5%+0.05Ω)
Load Life in Humidity	JIS-C-5202 7.9 40 ± 2°C, 90~95% RH at RCWV for 1000 hrs (1.5hrs on ; 0.5hr off)	±(5%+0.05Ω)	±(1.5%+0.05Ω)
Solder Ability	JIS-C-5202 6.5 235 ± 5°C for 2 ± 0.5 seconds	95% min. Coverage	95% min. Coverage
Pulse Overload	JIS-C-5202 5.8	Max. 1500V	Max. 1500V
	4 times RCWV for 10,000 cycles (1 sec. on; 25 secs. Off)	±(1%+0.05Ω)	±(1%+0.05Ω)
Dielectric Withstanding Voltage		Max. 1000V	Max. 1000V

Rated continuous Working Voltage (RCWV) =  $\sqrt{POWER.RATING.* RESISTANCE.VALUE}$

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