

# Resistors

Precision - Networks

MCS - series



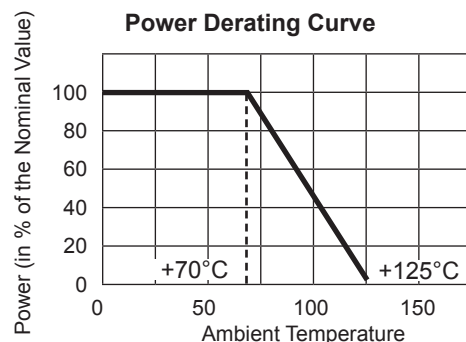
- Up to 10 Resistive Elements / 11 Pin
- Any Resistance from 30Ω to 120kΩ
- Standard TCR from ±5 ppm/K
- Tolerance from 0,01%, Matching from 0,01%
- Rugged Epoxy Housing
- Low Inductive, Low Current Noise

## Spezifikation

Resistance Range	30Ω - 120kΩ (max. Total Resistance ≤600kΩ)		
Power	1Watt Total Resistance		
Tolerances	Absolute		Matching
	30Ω - 120kΩ	±0,05%, ±0,1%, ±0,5%, ±1%	±0,01%, ±0,02%, ±0,05%, ±0,1%, ±0,5%, ±1%
Temperature Coefficient	Absolute		Tracking
	0 ±5ppm/K		1 < Rmax./Rmin. ≤10 ±1ppm/K
			10 < Rmax./Rmin. ≤100 ±2ppm/K
			Rmax./Rmin. >100 ±3ppm/K
Operating Temperature Range	-55°C bis 150°C		
Insulation Resistance	>10 GOhm		

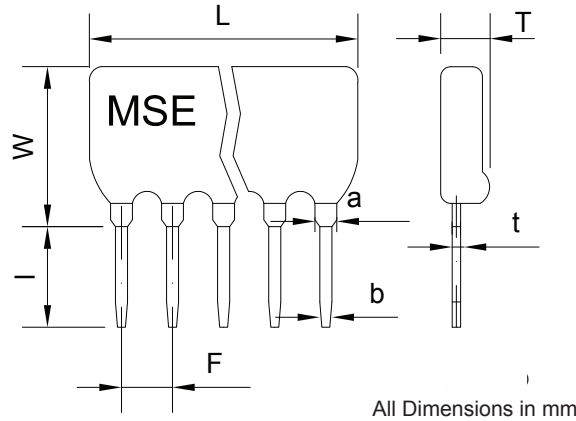
## Mechanical Data

Housing	Epoxy - Dipped
Resistance Element	NiCr - Foil
Carrier	Steatit
Leads	Copper, Tin Plated

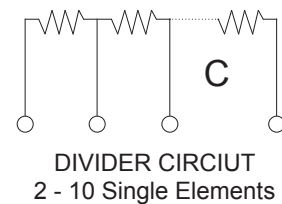
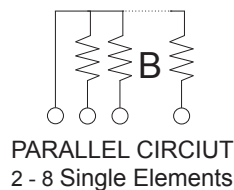
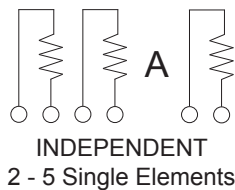


Parameter	Test	Δ Ratio	ΔR
Load Life	90 min ON, 30 min OFF, 1000h at 70°C	±0,05%	±0,1%
Overload	2,5 x Related Voltage, 5 Seconds	±0,01%	±0,05%
Humidity	90 - 98% RH, Related Voltage, 240h, at 40°C	±0,05%	±0,1%
Thermal Shock	-55°C 30 min, +155°C 30min. 5 Cycles	±0,01%	±0,05%
Vibration	20G, 10Hz - 55Hz - 10Hz, X,Y,Z je 1 min, 2h	±0,01%	±0,03%
Shock	100G, 6ms, Saw Tooth, X,Y,Z je 6 Shocks	±0,01%	±0,03%
Soldering Heat Resistance	350°C ±5°C, 3 Seconds	±0,01%	±0,03%
Solderability	245°C ±5°C 5 Seconds	Coverage >95%	
Storage Life	15°C bis 35°C, 15 - 75% RH, load free, 10000h	±0,01%	±0,03%

## Technical Drawing



## Layout- / Circuit Layouts



As an option the networks in parallel and divider circuit can be divided into 2 independently, electrically isolated circuits. Note: maximum number of pins in parallel circuits is 10 and in divider circuit 11. Please send your circuit layout together with your inquiry.

## Ordering Information

MSE Type	WA0,1% Tolerance (absolute)	WM0,1% Tolerance (matching)	TK5 Temp.- Coefficient (absolute)	10k/10k Resistance Value	A Layout
	±0,05%, ±0,1%, ±0,5%, ±1%	±0,01%, ±0,02%, ±0,05%, ±0,1%, ±0,5%, ±1%	±5ppm	(30Ω - 120kΩ) The total resistance must not exceed 120kΩ!	A - Array B - Parallel Circuit C - Divider Circuit

Note: All specifications and information in this data sheet are not considering customer's special requirements. All containing information of this data sheet are not a binding description of the product's properties. MEGATRON is not responsible for any damage caused by an improper use of the product. The customer has the responsibility to check the usability of the product in his application. MEGATRON does not guarantee the reproducibility of their publications.