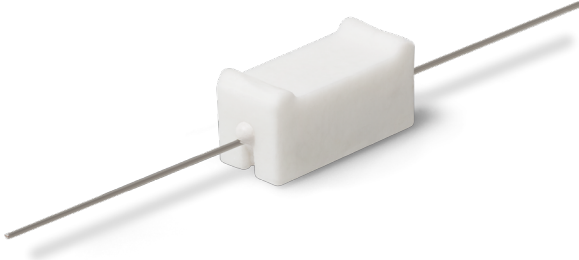


# Data Sheet for Precision Resistor

**Power Resistor in Ceramic Housing (wirewound)**

**Series MCU**



- Wirewound resistor, inorganic construction
- Power rating up to 15 Watt
- Resistance values from 0,01Ω..90kΩ
- Resistance tolerances up to ±0,01%
- TCR ±20ppm/°C R>10Ω
- Non-inductive windings (option)
- Flame proofed
- With spacer (option)

Electrical Specification	MCU				
	1	2	3	4	5
Resistance range	0,01Ω..12kΩ	0,01Ω..22kΩ	0,01Ω..45kΩ	0,01Ω..65kΩ	0,01Ω..91kΩ
Resistance tolerance	±0,01%..±10%				
Power rating @ 70°C (0W @ +275°C)	2W	3W	5W	10W	15W
TCR-rate	±20ppm/°C @ R > 10Ω, ±50ppm/°C @ R ≥ 1Ω..10Ω (±90ppm/°C @ R < 1Ω on request)				
Working temperature range (max.)	-55..+275°C				

Mechanical Specification	
Resistance technology / material	Wirewound / wire alloy
Housing material	Ceramics
Connections	Axial cooper tinned

Parameters	Test Conditions (MIL-STD 202)	Specification
Dielectric	See norm	±0,2% +0,05Ω
Load life	See norm	±1% +0,05Ω
Storage	See norm	±0,2% +0,05Ω
Moisture resistance	See norm	±0,2% +0,05Ω
Thermal shock	See norm	±0,2% +0,05Ω
5X Overload ( 5s )	See norm	±0,2% +0,05Ω
Shock	See norm	±0,1% + 0,05Ω
Vibration	See norm	±0,1% + 0,05Ω

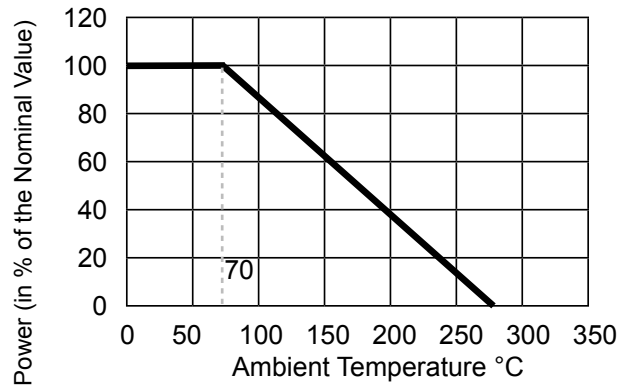
Dielectric strength: 1500 VAC

# Data Sheet for Precision Resistor

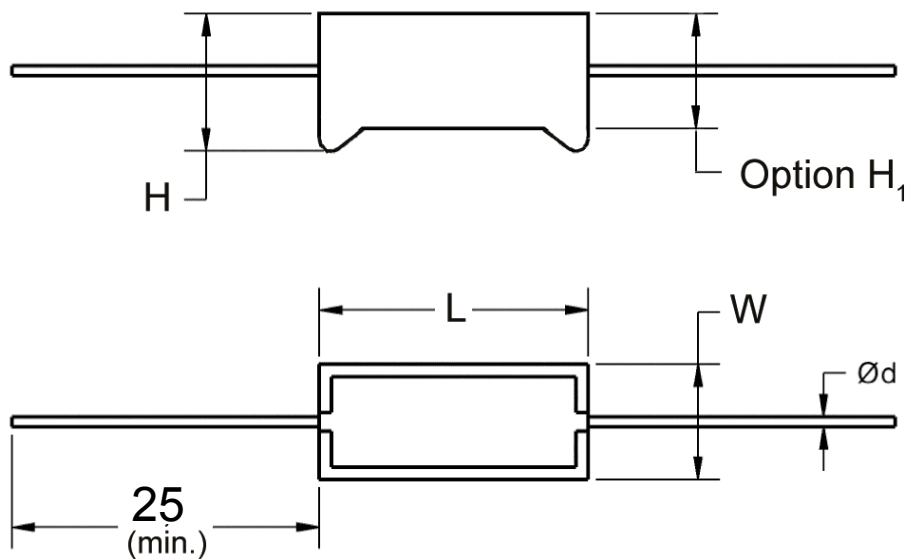
Power Resistor in Ceramic Housing (wirewound)

Series MCU

## Power Derating Curve



## Technical Drawing



## Dimensions

	$L \pm 1,0$	$H \pm 1,0$	$H_1 \pm 1,0$ Option (with spacer)	$W \pm 0,4$	$\varnothing d \pm 0,4$
MCU-1	17,8	6,2	7,6	6,5	0,8
MCU-2	22,2	7,9	9,5	7,9	0,8
MCU-3	22,2	9,5	11,1	9,5	0,8
MCU-4	48	9,5	12,7	9,5	1,0
MCU-5	48	12,7	15,9	12,7	1,0

Dimensions in mm

# Data Sheet for Precision Resistor

Power Resistor in Ceramic Housing (wirewound)

Series MCU

## Order code

Description		Selection: standard=black/bold, possible options=grey/cursive					
<b>Series:</b>	<b>MCV</b>						
<b>Type / size:</b>							
1 (max. 12kΩ)		<b>1</b>					
2 (max. 22kΩ)		<b>2</b>					
3 (max. 45kΩ)		<b>3</b>					
4 (max. 65kΩ)		<b>4</b>					
5 (max. 91kΩ)		<b>5</b>					
<b>Resistance tolerance:</b>							
±0,02%				<b>W0,02%</b>			
±0,05%				<b>W0,05%</b>			
±0,1%				<b>W0,1%</b>			
±0,25%				<b>W0,25%</b>			
±0,5%				<b>W0,5%</b>			
±1%				<b>W1%</b>			
±5%				<b>W5%</b>			
±10%				<b>W10%</b>			
<i>Option ±0,01%</i>				<i>W0,01%</i>			
<b>Temperature coefficient:</b>							
±20ppm/°C @ R >10Ω					<b>TK20</b>		
±50ppm/°C @ R ≥ 1Ω..10Ω					<b>TK50</b>		
<i>Option ±90ppm/°C @ R &lt; 1Ω</i>					<i>TK90</i>		
<b>Resistance value - please choose:</b>							
<b>From 0,01Ω bis ≤ see type</b>						<b>xxkxxx</b>	
<i>Option non-inductive windings:</i>							
<i>max. resistance value / 2</i>							<i>N</i>
<i>Option spacer:</i>							<i>H1</i>

Order Example	Series	Type	Resistance tolerance	Temperature coefficient	Resistance value	Inductance	Spacer
Choice	MCU	1	±1%	20ppm/°C	10,1kΩ	Standard	Yes
Code	MCU	1	W1%	TK20	10k100	-	H1