

Radial Glass Thermistor – C Series

Introduction

The Betatherm Glass Series NTC Thermistors are the perfect choice for applications that require high stability and performance in harsh environmental conditions. The Glass C Series use a hermetic glass encapsulation to allow improved resistance to humid environments. With an operating temperature range of -55°C to $+250^{\circ}\text{C}$, these NTC glass sensors are suitable for elevated temperatures or applications where rapid thermal cycling are present. With resistance tolerances of $\pm 1\%$, $\pm 2\%$, $\pm 3\%$ or $\pm 5\%$ tolerance at $+25^{\circ}\text{C}$, these NTC glass thermistors are suitable for the most demanding requirements.

Shape and Dimensions



Features

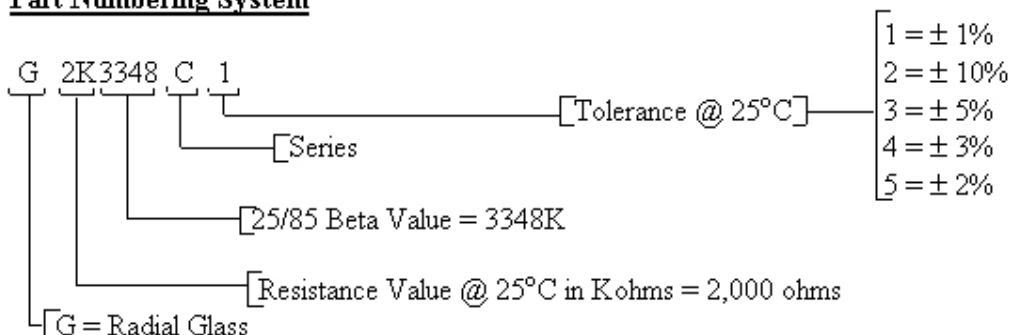
- Operating temperature range from -55°C to $+250^{\circ}\text{C}$
- Glass hermetic encapsulation with high resistance to humid environments
- Hermetically sealed thermistor
- High-temperature stability
- Available in $\pm 1\%$, $\pm 2\%$, $\pm 3\%$ or $\pm 5\%$ tolerance at $+25^{\circ}\text{C}$
- Fast response time
- Dissipation constant (DC) = $\sim 0.5\text{m W}/^{\circ}\text{C}$ in still air

Applications

- Temperature Measurement and control
- Sensor for engine temperature control
- Hot water boiler systems
- Air conditioning systems
- Refrigeration control
- In environments where thermal shock and humidity are present

Part Numbering System

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Electrical Specifications

Part Number	Resistance @ +25°C	Tolerance @ +25°C	Beta Value	Beta Tolerance	Dissipation Constant (Still Air @ +25°C)	T.C. Constant (Still Air)	T.C. Constant (Stirred Oil)
G2K3348C1	2000Ω	± 1%	3348	± 2%	0.5mW/°C Typ.	2 ~ 3 Seconds	0.18 ~ 0.2 Seconds
G2K3499C1	2000Ω	± 1%	3499	± 2%	0.5mW/°C Typ.	2 ~ 3 Seconds	0.18 ~ 0.2 Seconds
G5K3976C1	5000Ω	± 1%	3976	± 2%	0.5mW/°C Typ.	2 ~ 3 Seconds	0.18 ~ 0.2 Seconds
G10K3435C1	10000Ω	± 1%	3435	± 2%	0.5mW/°C Typ.	2 ~ 3 Seconds	0.18 ~ 0.2 Seconds
G10K3694C1	10000Ω	± 1%	3694	± 2%	0.5mW/°C Typ.	2 ~ 3 Seconds	0.18 ~ 0.2 Seconds
G30K3942C1	30000Ω	± 1%	3942	± 2%	0.5mW/°C Typ.	2 ~ 3 Seconds	0.18 ~ 0.2 Seconds
G50K3976C1	50000Ω	± 1%	3976	± 2%	0.5mW/°C Typ.	2 ~ 3 Seconds	0.18 ~ 0.2 Seconds
G100K4000C1	100000Ω	± 1%	4000	± 2%	0.5mW/°C Typ.	2 ~ 3 Seconds	0.18 ~ 0.2 Seconds
G200K4261C1	200000Ω	± 1%	4261	± 3%	0.5mW/°C Typ.	2 ~ 3 Seconds	0.18 ~ 0.2 Seconds
G500K4261C1	500000Ω	± 1%	4261	± 3%	0.5mW/°C Typ.	2 ~ 3 Seconds	0.18 ~ 0.2 Seconds

Reliability Information

Reliability Tests	Standard	Test Condition	Delta R
Storage in Dry Heat	IEC 60068-2-2	Storage temperature: + 250°C Duration: 1000 hours	< 3%
Storage in Damp Heat	IEC 60068-2-3	Temperature of air is 50°C & RH 95% Duration: 56 days.	< 2%
Rapid Temperature Cycling	IEC 60068-2-14	Lower Test Temperature -55°C Upper Test Temperature +200°C Number of Cycles 1000	< 2%

For details on the minimum order quantity (MOQ) of this product, please contact BetaTHERM Sensors or your local BetaTHERM Sensors representative

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