



BOWTHORPE THERMISTORS

○ NTC Thermistors

INDUSTRIAL/CONSUMER

TYPE G GL

151-110
151-111

Description

Type G thermistors incorporate a directly heated bead of semiconductor material in a solid glass pellet, connection being by means of two canife wires. These wires are normally finned but thermistors G55, G26 and G16 which are intended to operate at temperatures up to 300°C have untinned canife wires suitable for welding or brazing.

The type G thermistor is available in three styles of glass pellet, the largest size is referred to as 'Standard' (G - C), the smaller size as 'Miniature' (G - D) and the Probe as GL - eg a miniature G13 is coded G13D.

These thermistors are suitable for general use in the field of temperature measurement, control or compensation, flow measurement and similar applications.

Data

B value tolerance	±5%
τ G - C	21s
G - D	19s
k G - C	1.3mW/°C
G - D	1.1mW/°C
GL	1.2mW/°C

Low Resistance Types

T _A max	125°C
T _B max	125°C
P _{max} at 20°C G - C	140mW
G - D	120mW
GL	130mW

Derate linearly to zero at 125°C

Medium Resistance Types

T _A max	155°C
T _B max	200°C
P _{max} at 20°C G - C	230mW
G - D	200mW
GL	220mW

G - C Derate linearly to 55mW at 155°C
 G - D Derate linearly to 50mW at 155°C
 GL - Derate linearly to 53mW at 155°C

High Resistance Types

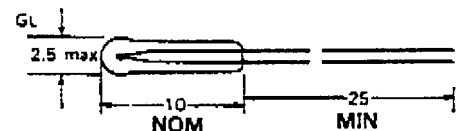
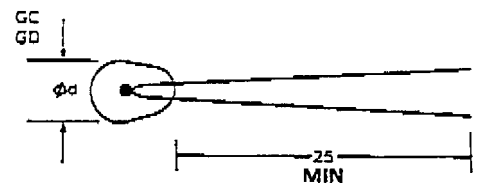
T _A max	300°C
T _B max	300°C
P _{max} at 20°C G - C	360mW
G - D	310mW
GL	340mW

Derate linearly to zero at 300°C

Temperature Measurement & Control

Fluid Level Detection
Flow Measurement & Control

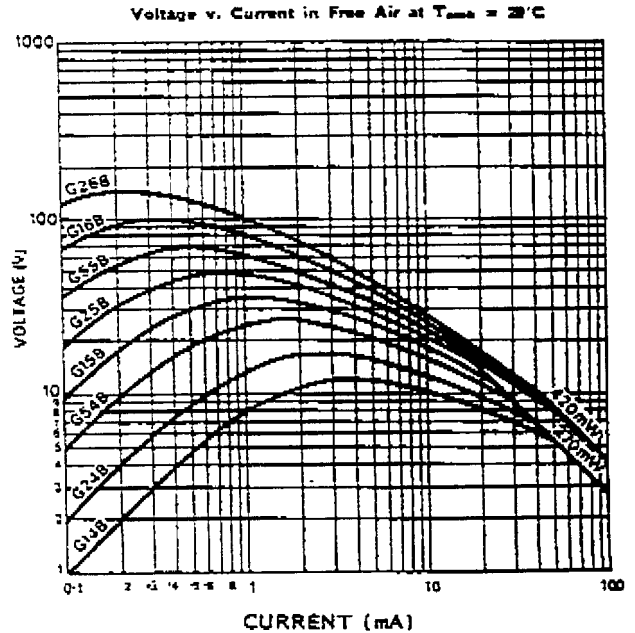
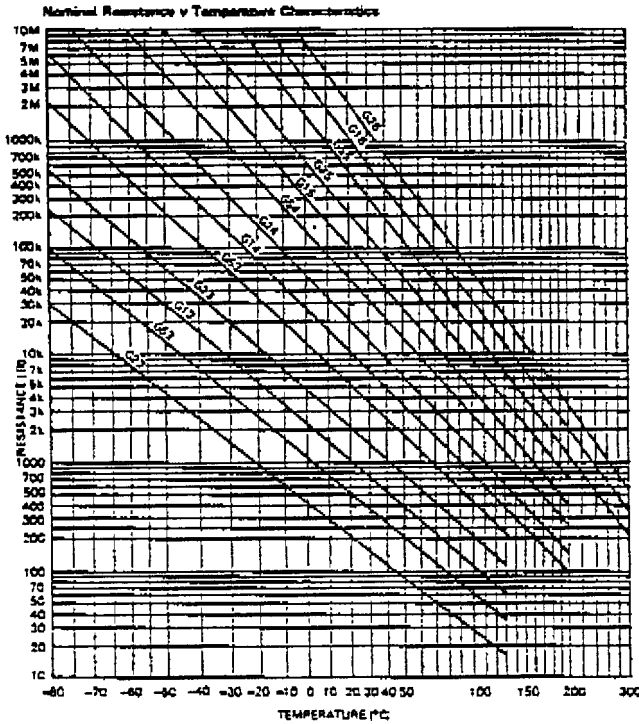
Outline



Code	Lead Dia. mm	Body Dia. (max)	Average Weight
G - C	0.4	3.2	0.15
G - D	0.35	2.5	0.11
GL -	0.35	2.5	

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Code	R_{20} Ω	R_{25} Ω	E_{max} free air at 20° C GC only (V)	R_{min} Ω	B_{25-85} K
Low resistance types					
G22 C, D and L	200	172	1.9	19	2750
G52	500	425	2.9	40	2900
G13	1k	840	3.9	70	3000
G23	2k	1.65k	5.3	113	3125
G53	5k	4.15k	8.2	250	3400
Medium resistance types					
G14	10k	8.2k	11	110	3600
G24	20k	16.2k	16	160	3800
G54	50k	40k	24	320	4075
G15	100k	79k	34	520	4275
G25	200k	156k	46	810	4400
High resistance types					
G55	500k	15k	62	180	4700
G16	1M	30k	87	330	4850
G26	2M	60k	120	560	5000



OPERATING:

Thermistors are designed to be intrinsically safe components provided they are operated within the rated voltages or currents and inside the recommended temperature range.

STORAGE :

The normal care required for electronic components should be exercised.

DISPOSAL :

No special hazards are involved in disposal. Incineration of thermistors is not recommended due to the emission of toxic fumes from epoxy coated devices or the shattering of glass and/or ceramic with possible hazard from hot jagged material.

PHYSICAL FORM :

The wire ends should not be bent nearer than 3mm to the glass body of the thermistor

PRODUCT SAFETY NOTES :

Although these devices are glass encapsulated no insulation properties are implied. Some of the thermistors in this range, when operated at or near maximum rated dissipation in a self-heat mode, may require applied voltages capable of causing dangerous electric shock.

FLAMMABLE FLUIDS :

These devices attain high surface temperatures when used as liquid sensors. This precludes their direct use in flammable fluids; please contact the Technical Sales Department for further information.

Performance figures and data quoted in this document are typical and must be specifically confirmed in writing by BOWTHORPE THERMISTORS before they become applicable to any particular order or contract. The company reserves the right to make alterations or amendments to the detailed specification at its discretion. The publication of information in this document does not imply freedom from patent or other protective rights of Bowthorpe Thermistors or others.

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