

CWF



CANTHERM

Supplying high-quality bimetal and thermal sensor products.



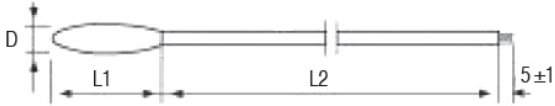
**CWF Precision
NTC Thermistor Probes
for Temperature Measurement**



The CWF series NTC Thermistors are supplied in 5 basic styles of enclosures designed to facilitate installation in a wide variety of applications. PVC leads are applied to a precision, high-reliability NTC thermistor, insulated with heat conductive water resistant materials and potted into any of a wide variety of probe bodies. CWF thermistors are also available with custom housings or custom lead lengths for remote sensing and temperature control in difficult conditions.

Also see the **Cantherm Thermistor Probe Brochure** for additional models.

Dimensions (mm)



mm (Max)

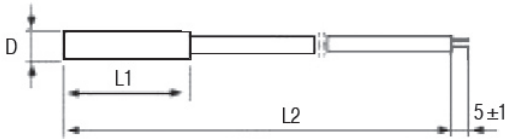
Code	S1	S2	S3	S4
D Max	3	5	6	7
L1 Max	5	10	15	15
L2	Customer Specified			

CWF1 (Ethoxyline dipped)

Characteristics: Moisture resistant, good insulation, high reliability, small time constant, quick responses.

Available Wire Types: AWG 24#, 26#, 28#,30#, PVC

Applications: Household air-conditioning, refrigeration and many others.



Code	S1	S2	S3	S4	S5	S6	S7
D (±0.2 mm)	3	5	5	5	6	6	6
L1 (±0.2 mm)	20	20	25	30	20	25	30
L2	Customer Specified						

CWF2 (Packaged in aluminum, copper, or stainless steel probe body)

Characteristics: High resistance to thermal shock, moisture resistant, strong and secure structure, high dissipation coefficient, the test current can be higher than that of the ethoxyline resin-package.

Standard Wire Type: AWG 24#, 26#, 28#,30#, PVC

Applications: Refrigeration, air-conditioning, water heaters, drinking fountains, and more.



3A	Code	S1	S2	S3	S4
D (±0.2 mm)		3.5	4	5	6
L1 (±0.2 mm)		15	15	15	20
L2	Customer Specified				



3B	Code	S1	S2	S3	S4
D (±0.2 mm)		4	8	8	
L1 (±0.2 mm)		10	35	50	
L2	Customer Specified				

CWF3 (Plastic body)

Characteristics: Good dimensional tolerances, good heat resistance and moisture protection, high voltage resistance.

Available Wire Types: AWG 24#, 26#, 28#,30#, PVC

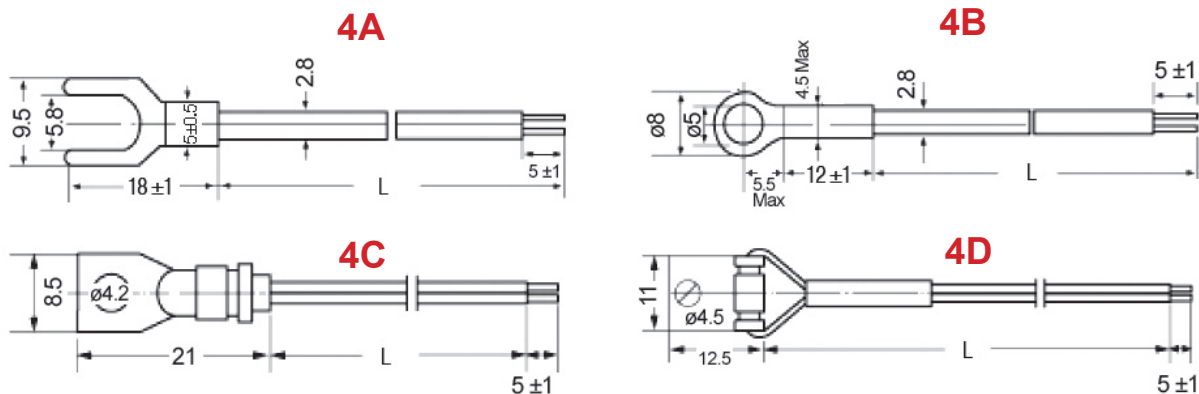
Applications: Air-conditioning, refrigeration, and more.

Applications

- Heating, ventilation & air conditioning
- Temperature regulation and measurement
- Automotive electronics
- Water heaters
- Household appliances such as refrigerators, water coolers, dishwashers and many others

Characteristics

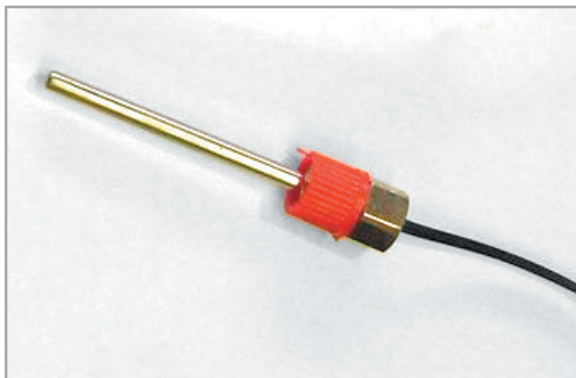
- Wide variety of installation fixtures and probes are available to suit your needs.
- Small size and fast response (temperature coefficient of resistance can reach - (2~5%/°C)
- Long-term stability and reliability (yearly drift of ≤1%)
- Excellent tolerance and interchangeability (the accuracy of R and B value can be ±1%)
- Double layer packaging provides excellent insulation and high strength and impact resistance.
- Dissipation constant type 1 package ≥2.0mW/°C, type 2 package ≥4.0mW/°C
- Time constant of ≤15S to 70S



CWF4 (Sheet metal attachment fixtures)

Characteristics: Wide variety of fixtures, suitable for most applications.

Applications: Fan control, industrial temperature controllers, and more.



CWF5 (Custom probes)

Characteristics: Small time constant, fast response, flexible and secure.

Applications: Water heaters, electronic thermometers, and more.

* Also refer to the **Cantherm Custom NTC Thermistor Probe Brochure**.

Specification

CWF □□□□ - 103 J 3380

① ② ③ ④ ⑤

- ① NTC Temp sensor
- ② Package Option
 - 1- Dipped ethoxyline resin (ex. 1S1)
 - 2- Aluminum, copper, or stainless steel housing (ex. 2S1)
 - 3- Plastic body (ex. 3AS1)
 - 4- Sheet metal attachment fixtures (ex. 4B)
 - 5- Special probes (ex. 5B)
- ③ The Rated Resistance at 25°C
Example: 103 = $10 \times 10^3 = 10000\Omega = 10K\Omega$
- ④ The Precision Symbol of Rated Resistance
F: $\pm 1\%$ G: $\pm 2\%$ H: $\pm 3\%$ J: $\pm 5\%$
- ⑤ B value (25/50°C) B value example: 3380K

Technical Specifications

Part No.	Rated Resistance R25		B Value (25/50°C)		Dissi.Coef. (mW/°C)	Thermal time Constant (S)	Operating Temp. (°C)
	Range (KΩ)	Allowable Tolerance (%)	(K)	Allowable Tolerance (%)			
CWF□□□3100	0.1-20		3100				
CWF□□□3270	0.2-20		3270				
CWF□□□3380	0.5-50		3380				
CWF□□□3470	0.5-50		3470				
CWF□□□3600	1-100	± 1	3600	± 1			
CWF□□□3950	5-100	± 2	3950		≥ 2.2	≤ 70	-55 to 125
CWF□□□4000	5-100	± 3	4000	± 2			
CWF□□□4050	5-200	± 5	4050				
CWF□□□4150	10-250		4150				
CWF□□□4300	20-1000		4300				
CWF□□□4500	10-1000		4500				



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