

— Specification —

CWF □□□□ – 103 J 3380

①            ②            ③            ④            ⑤

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

— Technical Specifications —

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



**CANTHERM**  
Supplying high-quality bimetal and thermal sensor products.

8415 Mountain Sights Avenue • Montreal (Quebec), H4P 2B8, Canada  
Tel: (514) 739-3274 • 1-800-561-7207 • Fax: (514) 739-2902 • E-mail: sales@cantherm.com  
Website: [www.cantherm.com](http://www.cantherm.com) | Division of Microtherm

2014/Oct CWF

CWF



**CANTHERM**  
Supplying high-quality bimetal and thermal sensor products.



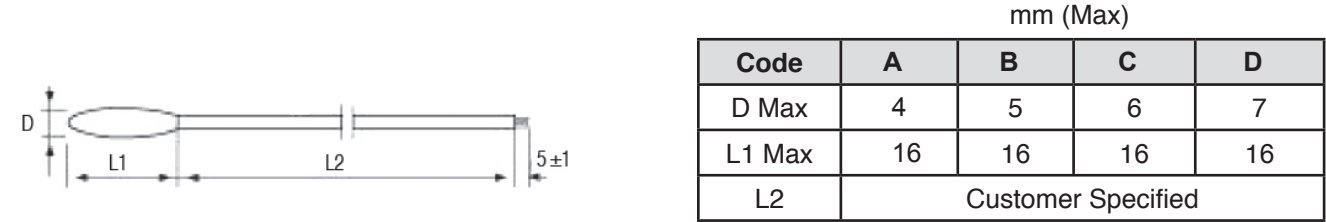
CWF Precision  
NTC Thermistor Probes  
for Temperature Measurement



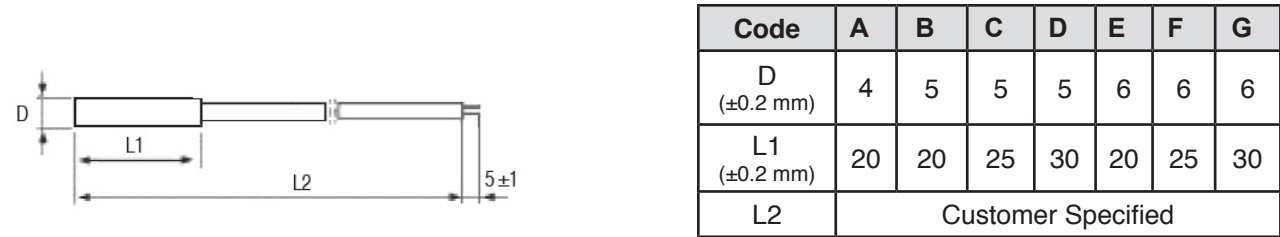
The CWF series NTC Thermistors are supplied in 5 basic styles of enclosures designed to facilitate installation in a wide variety of applications. PVC leads are applied to a precision, high-reliability NTC thermistor, insulated with heat conductive water resistant materials and potted into any of a wide 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.

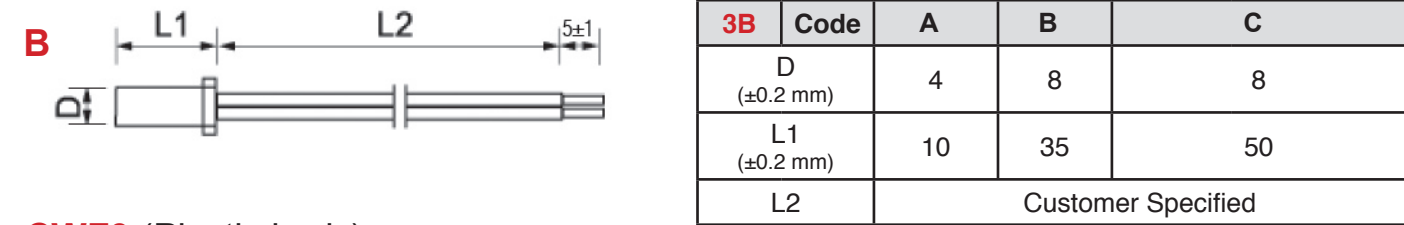
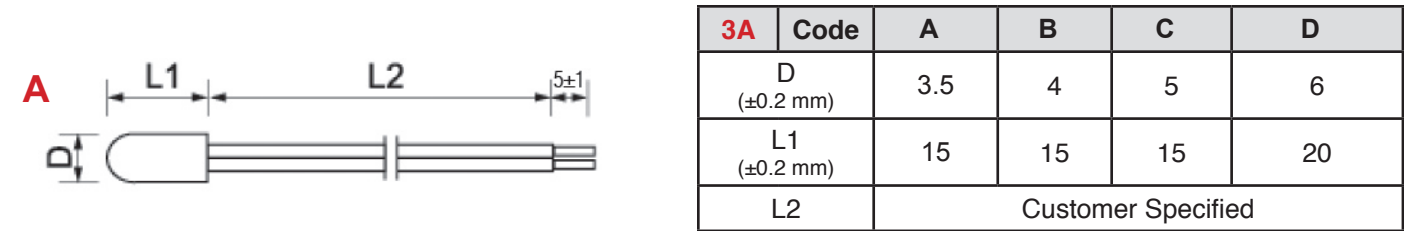
Dimensions (mm)



**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.



**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.



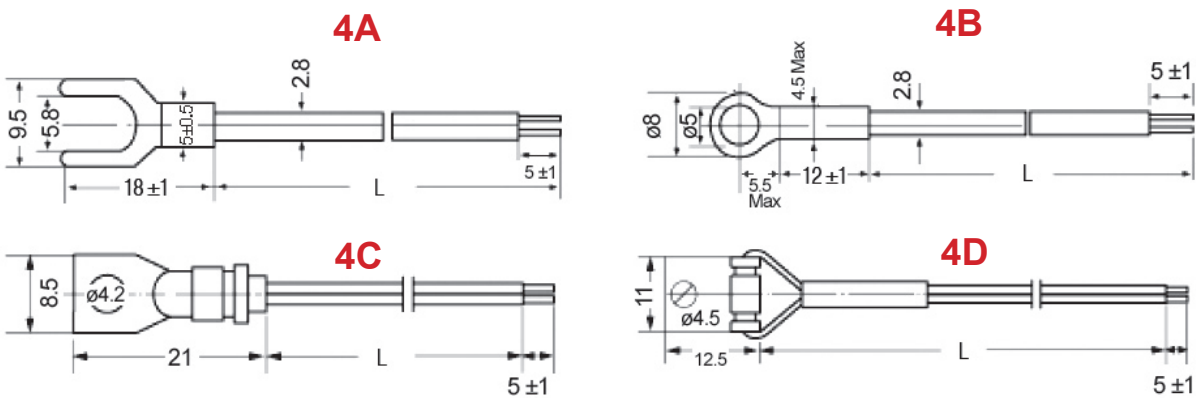
**CWF3** (Plastic body)  
**Characteristics:** Good dimensional tolerances, good heat resistance and moisture protection, high voltage resistance.  
**Available Wire Types:** AWG 24#, 26#, 28#,30#, PVC  
**Applications:** Air-conditioning, refrigeration, and more.

**Applications**

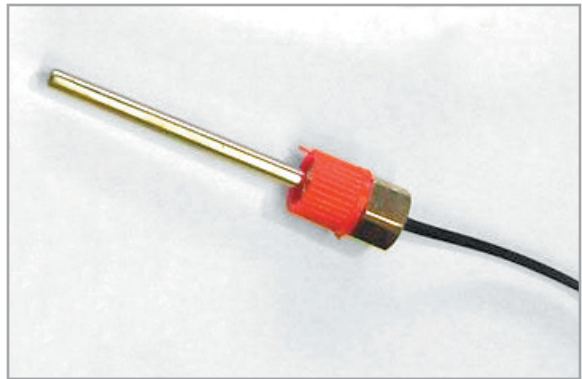
- Heating, ventilation & air conditioning
- Temperature regulation and measurement
- Automotive electronics
- Water heaters
- Household appliances such as refrigerators, water coolers, dishwashers and many others

**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**.