

汽车

用于变频器、DCDC变流器、充电器

STS-51



- 电阻值 $R_{25}=10k\Omega \pm 5\%$
- B值(3TV) $B_{25/50}=3820K \pm 3\%$
 $B_{25/85}=3792K$
- 使用温度范围 $-40^{\circ}C \sim +125^{\circ}C$
- 热响应时间常数(铝块上) 27sec.

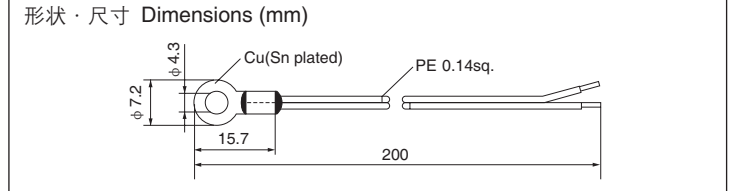
特点

- 安装时可采用螺栓固定。
- 采用金属吸热面，温度响应快。
- ※STS系列的热时间常数是按照以下方法测定，所以测定值受氧化铝的热容量的影响。
- ※首先用螺钉凝固氧化铝(120L×120W×20Tmm)，然后将除温度传感器的部分浸入25度的水中。之后再将氧化铝移之50度的水中。
- ※关于R-T数据，请参阅本公司网站。
- ※有关热敏温度传感器的使用环境条件，请与本公司协商。

Automotive products

For Inverter,DCDC converter,Charger

STS-51



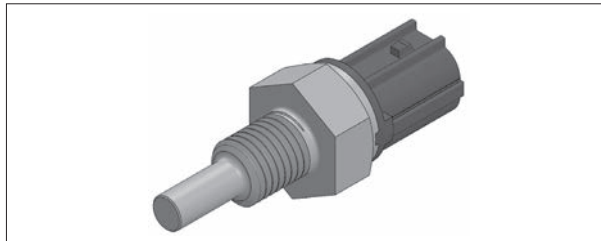
- Resistance $R_{25}=10k\Omega \pm 5\%$
- B value (3TV) $B_{25/50}=3820K \pm 3\%$
 $B_{25/85}=3792K$
- Operating temperature range $-40^{\circ}C \sim +125^{\circ}C$
- Thermal time constant (on Al block) 27sec.

Features

- Can be fastened with a screw.
- Metal contact surface yields fast temperature response.
- ※Thermal time constant of STS series is measured by following method. The data contains the influence of the heat capacity of the aluminum block.
- ※The sensor is screwed up on aluminum block(120L×120W×20Tmm),the block except sensor attached surface is put into 25°C water.From this state when block is moved into 50°C water.
- ※Regarding R-T data, please refer to our web site.
- ※Please consult us regarding the operating conditions of Thermistor sensors.

汽车

油温传感器



- 使用温度范围…………… -30°C ~ +200°C (传感器部位)
- 电阻值…………… R₁₀₀=0.2156kΩ
- B值…………… B_{50/100}=3456K
- 热响应时间常数…………… τ =6sec (搅拌水中)

特性、连接器形状变更等可应对客户要求。

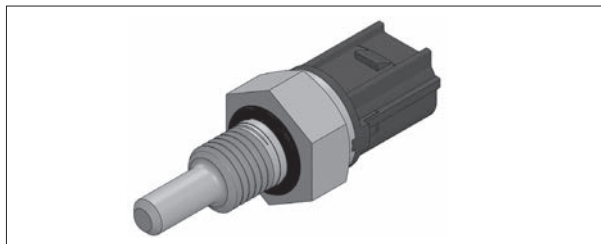
■特点

- 防水连接器一体化传感器
- 温度检测精度高
- 响应快 (6sec)
- 耐热性高 (传感器部位200°C)
- 耐严苛的温度循环冲击和振动
- 双重成形技术实现优异的气密性

■用途

- 使用于控制摩托车、汽车的F1 (电子燃料喷射) 系统
- 检测发动机油的温度
- 使用于检测其他产业、住宅设施的水和油的温度

油温传感器



- 使用温度范围…………… -30°C ~ +120°C (传感器部位)
- 电阻值…………… R₁₀₀=0.156kΩ
- B值…………… B_{50/100}=3824K
- 热响应时间常数…………… τ =6sec (搅拌水中)

特性、连接器形状变更等可应对客户要求。

■特点

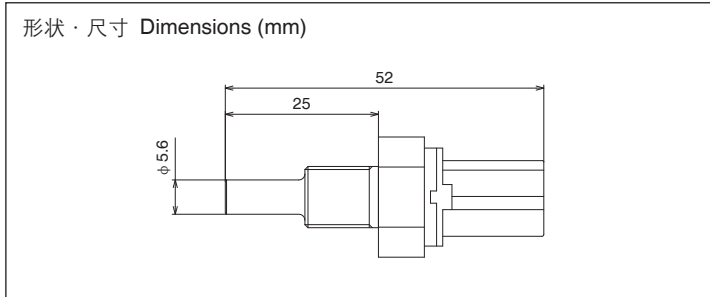
- 防水连接器一体化传感器
- 温度检测精度高
- 响应快 (6sec)
- 耐热性高 (传感器部位200°C)
- 耐严苛的温度循环冲击和振动
- 双重成形技术实现优异的气密性

■用途

- 使用于控制摩托车、汽车的F1 (电子燃料喷射) 系统
- 检测发动机冷却水的温度
- 使用于检测其他产业、住宅设施的水和油的温度

Automotive products

Oil Temperature Sensor



- Operating temperature…………… -30°C ~ +200°C (sensor portion)
- Resistance…………… R₁₀₀=0.2156kΩ
- B-Value…………… B_{50/100}=3456K
- Thermal constant…………… τ =6sec (in stirred water)

Shape, characteristics, among others is customizable.

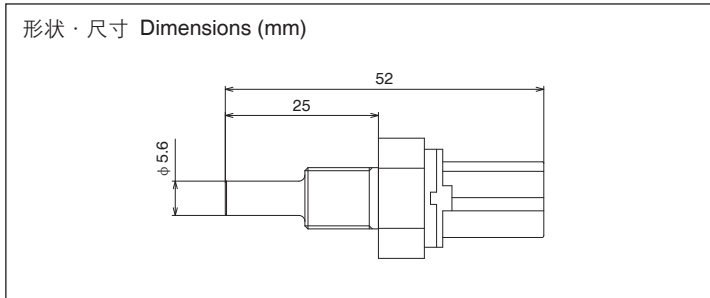
■Features

- Integrated waterproof connector sensor
- Precise temperature measuring
- Quick response (6 sec)
- Durable at high temperature (200°C)
- Tough against extreme heat cycling and vibration
- Double molding makes for airtight construction

■Applications

- Electronic fuel injection for motorcycles or automobiles
- Measuring oil temperature
- Measuring liquid temperature for industrial or household applications

Oil Temperature Sensor



- Operating temperature…………… -30°C ~ +120°C (sensor portion)
- Resistance…………… R₁₀₀=0.156kΩ
- B-Value…………… B_{50/100}=3824K
- Thermal constant…………… τ =6sec (in stirred water)

Shape, characteristics, among others is customizable.

■Features

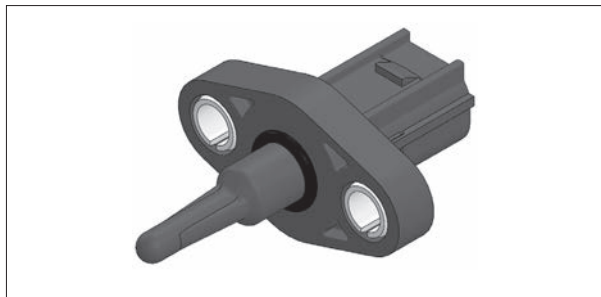
- Integrated waterproof connector sensor
- Precise temperature measuring
- Quick response (6 sec)
- Durable at high temperature (200°C)
- Tough against extreme heat cycling and vibration
- Double molding makes for airtight construction

■Applications

- Electronic fuel injection for motorcycles or automobiles
- Measuring coolant temperature
- Measuring liquid temperature for industrial or household applications

汽车

进气温度传感器



- 使用温度范围 $-30^{\circ}\text{C} \sim +200^{\circ}\text{C}$
- 电阻值 $R_{100}=0.1553\text{k}\Omega$
- B值 $B_{50/100}=3824\text{K}$
- 热响应时间常数 $\tau =6\text{sec}$ (搅拌水中)

特性、连接器形状变更等可应对客户要求。

■特点

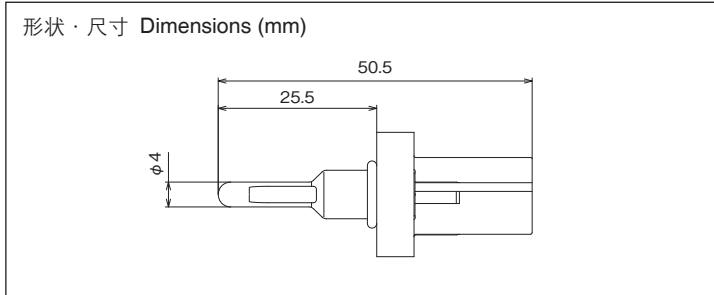
- 防水连接器一体化传感器
- 使用螺丝固定，安装牢固可靠
- 温度检测精度高
- 响应快 (6sec)
- 耐严苛的温度循环冲击和振动
- 双重成型技术实现优异的气密性

■用途

- 用于控制摩托车、汽车的F1 (电子燃料喷射) 系统
- 用于测量吸入空气的温度

Automotive products

Intake Air Temperature Sensor (IAT)



- Operating temperature $-30^{\circ}\text{C} \sim +120^{\circ}\text{C}$
- Resistance $R_{100}=0.1553\text{k}\Omega$
- B-Value $B_{50/100}=3854\text{K}$
- Thermal constant $\tau =6\text{sec}$ (in stirred water)

Shape, electrical characteristics, among others is customizable.

■Features

- Integrated waterproof connector sensor
- Easy and reliable attaching with screws
- Precise temperature measuring
- Quick response (6 sec)
- Tough against extreme heat cycling and vibration
- Double molding makes for airtight construction

■Applications

- Electronic fuel injection for motorcycles or automobiles
- Measuring air intake temperature for industrial or household applications

汽车

用于汽车空调（蒸发器）

CAE-60



- 电阻值..... $R_0=4.852k\Omega \pm 5\%$
- B值(6D)..... $B_{25/50}=3930K \pm 3\%$
 $B_{25/85}=3941K$
- 使用温度范围..... $-30^{\circ}C \sim +100^{\circ}C$
- 热响应时间常数(水中)..... 4sec.

■特点

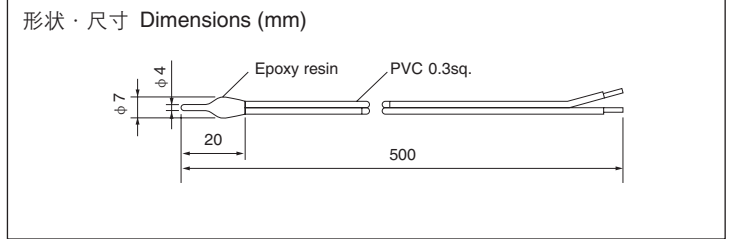
- 防湿性能优异。
- 小型、温度响应快。

※关于R-T数据，请参阅本公司网站。
 ※有关热敏温度传感器的使用环境条件，请与本公司协商。

Automotive products

For car air conditioner (Evaporator)

CAE-60



- Resistance..... $R_0=4.852k\Omega \pm 5\%$
- B value (6D)..... $B_{25/50}=3930K \pm 3\%$
 $B_{25/85}=3941K$
- Operating temperature range..... $-30^{\circ}C \sim +100^{\circ}C$
- Thermal time constant (in water)..... 4sec.

■Features

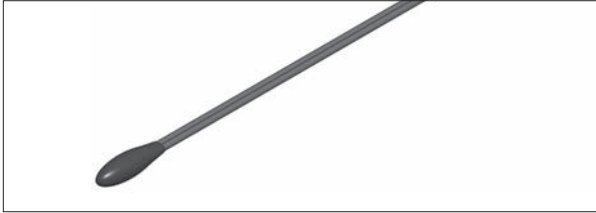
- Moisture resistant.
- Small with quick temperature response.

※Regarding R-T data, please refer to our web site.
 ※Please consult us regarding the operating conditions of Thermistor sensors.

白色家电

用于空调气温

ACA-30



ACA-30

- 电阻值 $R_{25}=5k\Omega \pm 3\%$
- B值(3T) $B_{25/50}=3950K \pm 2\%$
 $B_{25/85}=3989K$
- 使用温度范围 $-30^{\circ}C \sim +100^{\circ}C$
- 热响应时间常数(空气中) 25sec.

ACA-35



ACA-35

- 电阻值 $R_{25}=15k\Omega \pm 3\%$
- B值(3T) $B_{25/50}=3950K \pm 2\%$
 $B_{25/85}=3989K$
- 使用温度范围 $-30^{\circ}C \sim +100^{\circ}C$
- 热响应时间常数(空气中) 50sec.

■特点

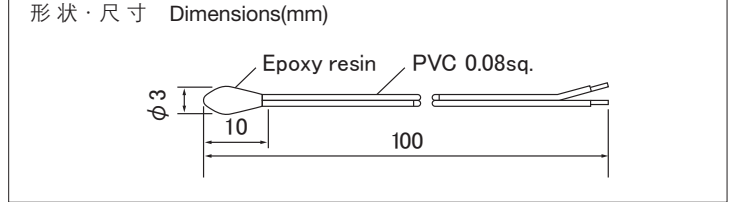
- 防湿性能优异。
- 小型、温度响应快。

※关于R-T数据，请参阅本公司网站。
※有关热敏温度传感器的使用环境条件，请与本公司协商。

Home Appliance

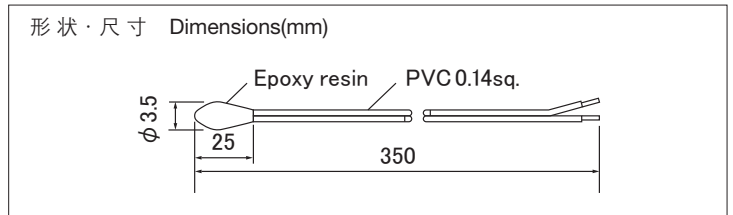
For Air Temp of Air conditioner

ACA-30



- Resistance $R_{25}=5k\Omega \pm 3\%$
- B value (3T) $B_{25/50}=3950K \pm 2\%$
 $B_{25/85}=3989K$
- Operating temperature range $-30^{\circ}C \sim +100^{\circ}C$
- Thermal time constant (in air) 25sec.

ACA-30



- Resistance $R_{25}=15k\Omega \pm 3\%$
- B value (3T) $B_{25/50}=3950K \pm 2\%$
 $B_{25/85}=3989K$
- Operating temperature range $-30^{\circ}C \sim +100^{\circ}C$
- Thermal time constant (in air) 50sec.

■Features

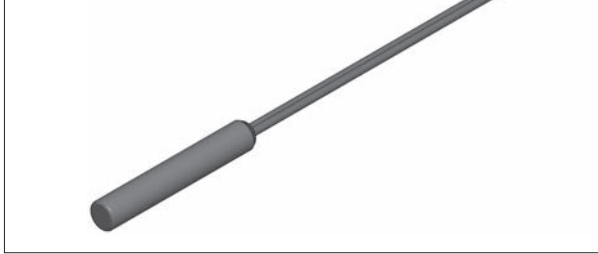
- Moisture resistant.
- Small with quick temperature response.

※Regarding R-T data, please refer to our web site.
※Please consult us regarding the operating conditions of Thermistor sensors.

白色家电

用于空调热交换器

ACH-40/42/45/60



ACH-40/42/45/60

- 电阻值..... $R_{25}=10k\Omega \pm 3\%$
- B值(3T) $B_{25/50}=3950K \pm 2\%$
 $B_{25/85}=3989K$
- 使用温度范围 $-30^{\circ}C \sim +100^{\circ}C$
- 热响应时间常数(水中) ACH-40,42 : 4.5sec.
ACH-45 : 5sec.
ACH-60 : 10sec.

■特点

- 防湿性能优异。
- 小型、温度响应快。

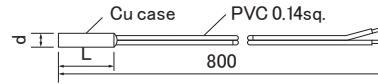
※关于R-T数据，请参阅本公司网站。
※有关热敏温度传感器的使用环境条件，请与本公司协商。

Home Appliance

For Heat Exchanger of Air conditioner

ACH-40/42/45/60

形状・尺寸 Dimensions(mm)



d(mm)	φ4.0	φ4.2	φ4.5	φ6.0
L(mm)	24	25	25	24

- Resistance $R_{25}=10k\Omega \pm 3\%$
- B value (3T) $B_{25/50}=3950K \pm 2\%$
 $B_{25/85}=3989K$
- Operating temperature range $-30^{\circ}C \sim +100^{\circ}C$
- Thermal time constant (in water) ACH-40,42 : 4.5sec.
ACH-45 : 5sec.
ACH-60 : 10sec.

■Features

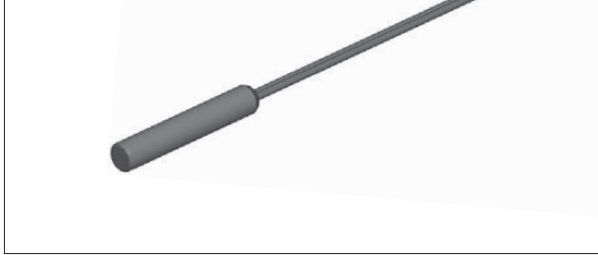
- Moisture resistant.
- Small with quick temperature response.

※Regarding R-T data, please refer to our web site.
※Please consult us regarding the operating conditions of Thermistor sensors.

白色家电

用于空调排气管

ACD-45



- 电阻值 $R_{90}=5k\Omega \pm 3\%$
- B值(6W) $B_{25/50}=3950K \pm 3\%$
 $B_{25/85}=4025K$
- 使用温度范围 $-30^{\circ}C \sim +130^{\circ}C$
- 热响应时间常数(水中) 5sec.

■特点

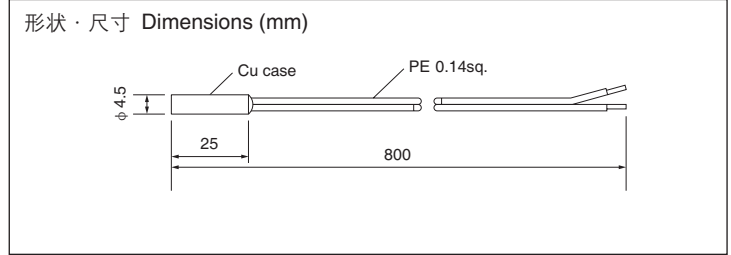
- 防湿性能优异。
- 小型、温度响应快。

※关于R-T数据，请参阅本公司网站。
※有关热敏温度传感器的使用环境条件，请与本公司协商。

Home Appliance

For Delivery pipe of Air conditioner

ACD-45



- Resistance $R_{90}=5k\Omega \pm 3\%$
- B value (3U) $B_{25/50}=3950K \pm 3\%$
 $B_{25/85}=4025K$
- Operating temperature range $-30^{\circ}C \sim +130^{\circ}C$
- Thermal time constant (in water) 5sec.

■Features

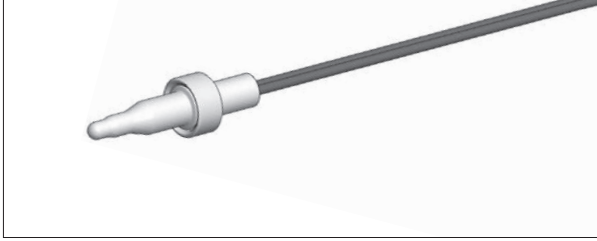
- Moisture resistant.
- Small with quick temperature response.

※Regarding R-T data, please refer to our web site.
※Please consult us regarding the operating conditions of Thermistor sensors.

水暖设备

用于开水器

IBS-25



- 电阻值 $R_{50}=3.485k\Omega \pm 2.5\%$
- B值(6QR) $B_{25/50}=3423K \pm 1\%$
 $B_{25/85}=3468K$
- 使用温度范围 $-30^{\circ}C \sim +105^{\circ}C$
- 热响应时间常数(水中) 0.8sec.

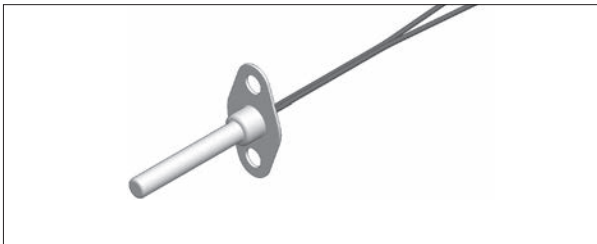
■特点

- 耐热冲击性能优异。
- 温度响应快。
- 不锈钢外壳，耐腐蚀性能优异。

※关于R-T数据，请参阅本公司网站。
※有关热敏温度传感器的使用环境条件，请与本公司协商。

用于热水器

HBS-45



- 电阻值 $R_{25}=11k\Omega \pm 3\%$
- B值(3T) $B_{25/50}=3950K \pm 2\%$
 $B_{25/85}=3989K$
- 使用温度范围 $-30^{\circ}C \sim +100^{\circ}C$
- 热响应时间常数(水中) 3sec.

■特点

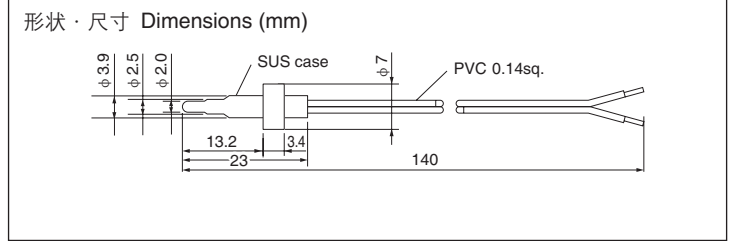
- 防湿性能优异。

※关于R-T数据，请参阅本公司网站。
※有关热敏温度传感器的使用环境条件，请与本公司协商。

Used in Water

For Instant boiler

IBS-25



- Resistance $R_{50}=3.485k\Omega \pm 2.5\%$
- B value (6QR) $B_{25/50}=3423K \pm 1\%$
 $B_{25/85}=3468K$
- Operating temperature range $-30^{\circ}C \sim +105^{\circ}C$
- Thermal time constant (in water) ... 0.8sec.

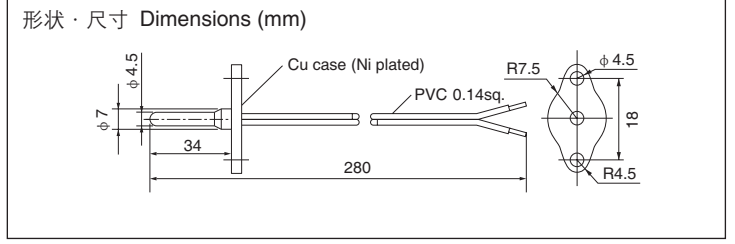
■Features

- Resistant to heat shock.
- Quick temperature response.
- Stainless steel case makes resistant to corrosion.

※Regarding R-T data, please refer to our web site.
※Please consult us regarding the operating conditions of Thermistor sensors.

For Hot boiler

HBS-45



- Resistance $R_{25}=11k\Omega \pm 3\%$
- B value (3T) $B_{25/50}=3950K \pm 2\%$
 $B_{25/85}=3989K$
- Operating temperature range $-30^{\circ}C \sim +100^{\circ}C$
- Thermal time constant (in water) ... 3sec.

■Features

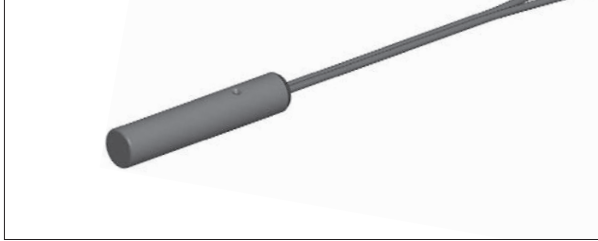
- Moisture resistant.

※Regarding R-T data, please refer to our web site.
※Please consult us regarding the operating conditions of Thermistor sensors.

水暖设备

用于洗衣机

WDS-60



- 电阻值 $R_{100}=3.3k\Omega \pm 3\%$
- B值(6PR) $B_{25/100}=3999K \pm 2\%$
- 使用温度范围 $-30^{\circ}C \sim +150^{\circ}C$
- 热响应时间常数(水中) 10sec.

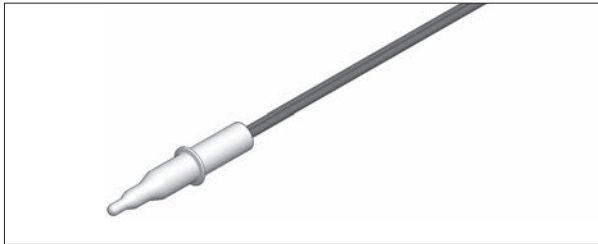
■特点

- 耐热性能优异。
- 防湿性能优异。

※关于R-T数据, 请参阅本公司网站。
 ※有关热敏温度传感器的使用环境条件, 请与本公司协商。

用于智能座便

WTS-15



- 电阻值 $R_{37}=29.46k\Omega \pm 3\%$
- B值(6PR) $B_{25/50}=3948K \pm 1.5\%$
 $B_{25/85}=3984K$
- 使用温度范围 $-30^{\circ}C \sim +105^{\circ}C$
- 热响应时间常数 (水中) 0.5sec.

■特点

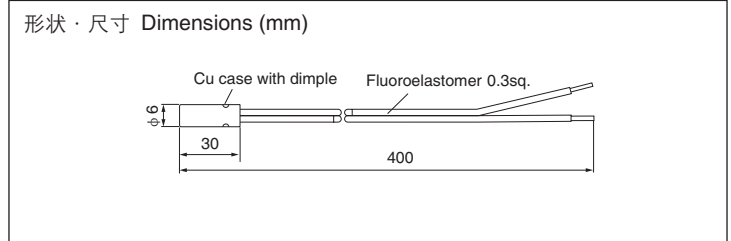
- 热灵敏性极高。
- 不锈钢外壳, 耐腐蚀性能优异。

※关于R-T数据, 请参阅本公司网站。
 ※有关热敏温度传感器的使用环境条件, 请与本公司协商。

Used in Water

For Washing machine

WDS-60



- Resistance $R_{100}=3.3k\Omega \pm 3\%$
- B value (6PR) $B_{25/100}=3999K \pm 2\%$
- Operating temperature range $-30^{\circ}C \sim +150^{\circ}C$
- Thermal time constant (in water) ... 10sec.

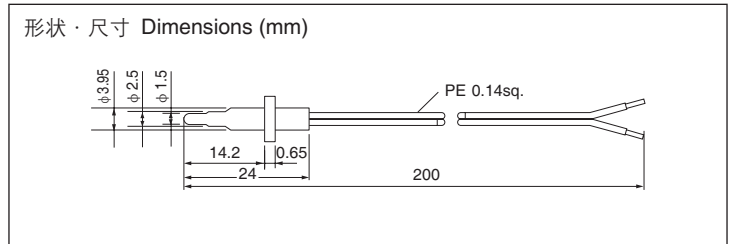
■Features

- Resistance to high temperature.
- Moisture resistant.

※Regarding R-T data, please refer to our web site.
 ※Please consult us regarding the operating conditions of Thermistor sensors.

For Bidet

WTS-15



- Resistance $R_{37}=29.46k\Omega \pm 3\%$
- B value (6PR) $B_{25/50}=3948K \pm 1.5\%$
 $B_{25/85}=3984K$
- Operating temperature range $-30^{\circ}C \sim +105^{\circ}C$
- Thermal time constant (in water) ... 0.5sec.

■Features

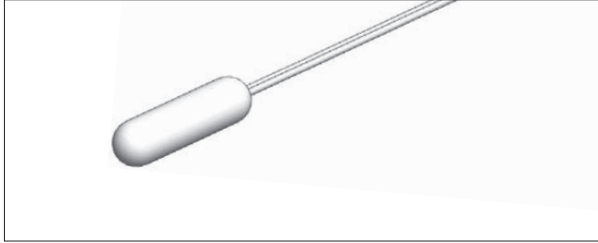
- Ultra quick temperature response.
- Stainless steel case makes resistant to corrosion.

※Regarding R-T data, please refer to our web site.
 ※Please consult us regarding the operating conditions of Thermistor sensors.

白色家电

用于电冰箱

RFG-70



- 电阻值 $R_0=6.4k\Omega \pm 3\%$
- B值(6W) $B_{0/25}=3844K \pm 2\%$
 $B_{-20/0}=3840K$
- 使用温度范围 $-40^{\circ}C \sim +80^{\circ}C$
- 热响应时间常数 (水中) 25sec.

■特点

- 吸湿率小、耐绝缘性、热冲击性优异。
- 精度高、可靠性高 (耐迁移性、热冲击性等)。
- 可在冷藏室、冷冻室使用。

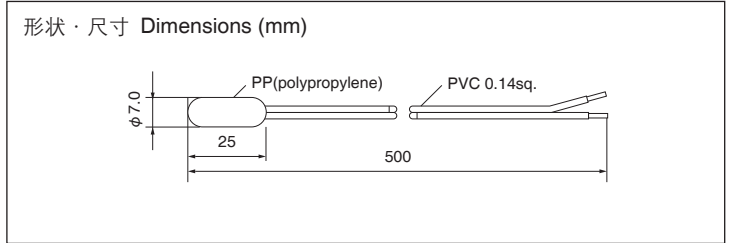
※关于R-T数据, 请参阅本公司网站。

※有关热敏温度传感器的使用环境条件, 请与本公司协商。

Home Appliance

For Refrigerator

RFG-70



- Resistance $R_0=6.4k\Omega \pm 3\%$
- B value (6W) $B_{0/25}=3844K \pm 2\%$
 $B_{-20/0}=3840K$
- Operating temperature range $-40^{\circ}C \sim +80^{\circ}C$
- Thermal time constant (in water) 25sec.

■Features

- Low water absorption rate, superior electrical insulation and thermal shock resistance.
- High accuracy and high reliability (Anti-migration, Thermal shock)
- For refrigerator compartment or freezer compartment

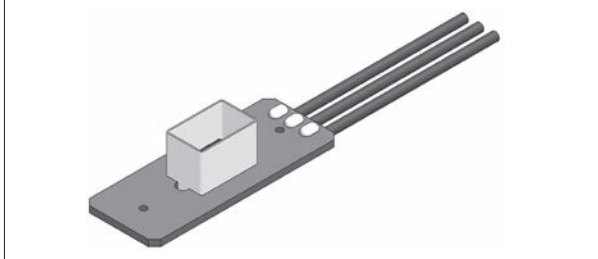
※Regarding R-T data, please refer to our web site.

※Please consult us regarding the operating conditions of Thermistor sensors.

非接触式温度传感器

DNS系列

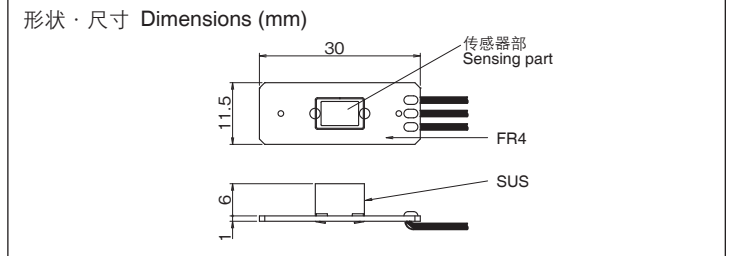
非接触式温度传感器DNS系列产品通过非接触方式检测目标物体温度，是一种采用热敏方式的红外线温度传感器。



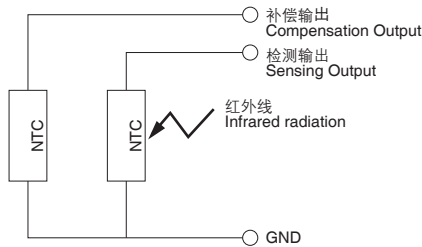
Non-Contact Temperature Sensor

DNS Series

Our DNS Series non-contact temperature sensor measures an objects temperature without touching it by using its infrared radiation.



配电图 Circuit



■特点

- 通过超高精度的热敏电阻，实现了高的检测精度。
- 通过本公司特有的检出部构造，实现了高感度和高速响应性。
- 实现了高耐热性、耐ESD性。
- 实现了传感器的小型化、轻量化。

■特性

- 热敏电阻特性：
 - 零负载电阻值 $R_{25} = 100k\Omega$ (typ.)
 - B值 $B_{25/50} = 4,250K$ (typ.)
- 使用温度范围 $-30^{\circ}C \sim 125^{\circ}C$ *2
- 温度检测范围 $0^{\circ}C \sim 400^{\circ}C$ *3
- 响应速度（热响应时间常数）..... 大约0.6秒*4
- 视角 $89.4^{\circ} \times 107.7^{\circ}$

※1：根据与传感器的距离、目标物体表面材质、面积、形状、空气对流等条件精度会有所变化。

※2：无结露现象。

※3：应在传感器使用范围内使用。

※4：检测温度达到黑体温度63.2%的时间。

■Features

- Our precise thermistor is able to accurately measure the temperature
- Our unique output structure enables high precision and fast response time
- Tough against high temperatures and ESD
- Reduced dimensions and weight

■Specifications

- Thermistor Characteristics $R_{25} = 100k\Omega$ (typ.)
 $B_{25/50} = 4,250K$ (typ.)
- Operating Temperature Range $-30^{\circ}C$ to $125^{\circ}C$ *2
- Detection Temperature Range $0^{\circ}C$ to $400^{\circ}C$ *3
- Response Time (when warm) approximately 0.6 sec.*4
- Sensing Angle $89.4^{\circ} \times 107.7^{\circ}$

※1：Accuracy affected by type of material, area, shape, distance, and airflow

※2：Without any condensation

※3：Sensor unit must be within operating temperature range

※4：When it detects => 63.2% of black body temperature