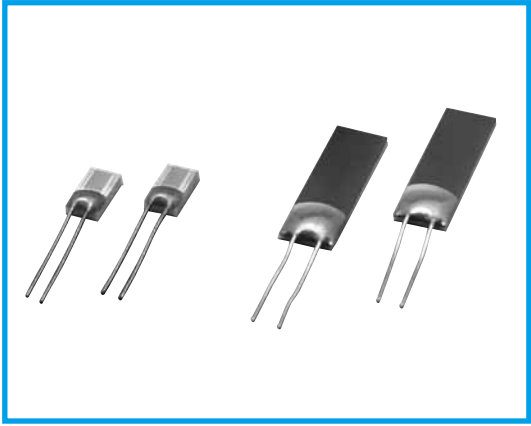


白金薄膜温度センサ  
Platinum Thin-Film Temperature Sensor

PF series



- 抵抗温度係数が白金バルクと同等で極めて安定しています。
- Its resistance temperature coefficient is same as platinum bulk, an attribute which makes the sensor extremely stable.
- リニアリティー 熱応性に優れています。
- Excellent linearity sensibility
- 経時変化が小さく安定性、信頼性に優れています。
- The sensor remains stable even with a long elapse after a certain time. High stability and reliability guaranteed

■計測対象 ・温度・湿度・風量・風速・熱量・液面

The sensor can be used to measure the following: temperature, humidity, wind volume, wind speed, heat capacity and liquid level.

- 家電製品 (エアコン, ファンヒーター, 電磁調理器)  
Home appliances (air conditioner, fan heater, electromagnetic cooking device)
- OA機器 (複写機, ファクシミリ, プリンター)  
Office automation equipment (copy machine, facsimile, printer)
- 自動車 (吸気温, 排気温, 冷却水温, 流量センサ)  
Automotives (in-take air temperature, exhaust temperature, cooling water temperature, discharge sensor)
- 医療機器  
Medical equipment
- 産業機器  
Industrial equipment

■特性 Characteristics

項目 Item	P F R	P F S
抵抗値 (at 0 °C) Resistance	100Ω 500Ω 1kΩ	100Ω
抵抗値許容差 Resistance tolerance	±0.5%(D) ±1%(F)	±1%(F)
抵抗温度係数 (at 0°C~100°C) Resistance temperature coefficient	3850±24ppm/°C	3850±24ppm/°C
使用温度範囲 Operating temperature	-40~600°C	-40~600°C
熱放散定数 (空气中 In -air) Dissipation constant	5.0mW/°C	1.5mW/°C
熱応答性 (水中 In -water) Heat response	0.4 seconds (90%)	0.2 seconds (90%)

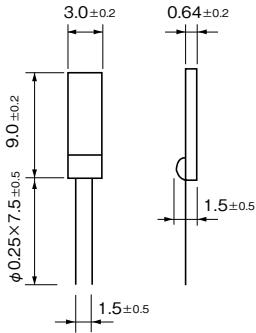
■環境特性 Characteristics

熱衝撃 Thermal shock	常温 — 500°C — 常温 Room temperature Room temperature	4000cycles	△R/R ≤ ±(0.2%+0.05Ω)
温度衝撃 Heat shock	- 40°C — 常温 — 125°C — 常温 Room temperature Room temperature	2000cycles	△R/R ≤ ±(0.2%+0.05Ω)
温湿度サイクル Excess temperature cycle	- 30°C — 40°C — 65°C at 95% RH	10cycles	△R/R ≤ ±(0.2%+0.05Ω)
高温露出 High temperature exposure	at 600°C 2000 h		△R/R ≤ ±(0.2%+0.05Ω)
低温露出 Low temperature exposure	at - 40°C 2000 h		△R/R ≤ ±(0.2%+0.05Ω)
塩水噴霧 Neutral salt spray test	JIS-Z-2371 72 h		△R/R ≤ ±(0.2%+0.05Ω)
耐湿負荷 Load Life in humidity	at 60°C 95% RH 2mA 2000 h		△R/R ≤ ±(0.2%+0.05Ω)

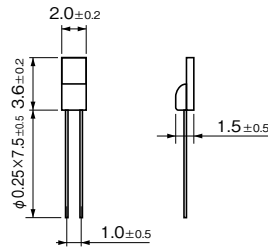
■規格 Standards

●形状・寸法 configuration (mm)

■ PFR (Radial type)

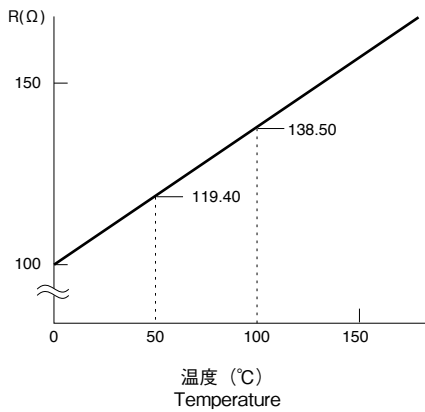


■ PFS (Small type)



●抵抗-温度特性 Resistance - Temperature

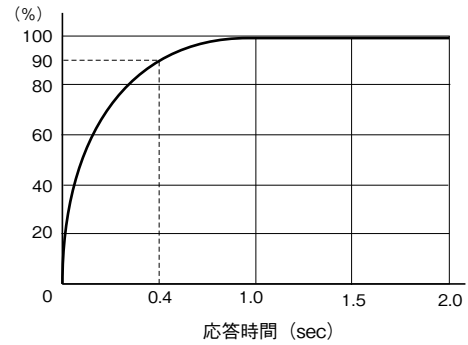
Characteristic



●熱応答特性 Heat response

( PFR を 0°C から 100°C 沸騰水 に入れた例 )

Example in which PFR is put in the water, and the water temperature changes from 0°C to 100°C (boiling point).



■標準抵抗値 (Ω) Standard resistance values

( )内 抵抗値コード Resistance code

抵抗値 (Ω)	100	500	1k
(抵抗値コード)	(101)	(501)	(102)

■受注生産品 Products by order

■品番コード Explanation of Part Number

PFR 501 D

