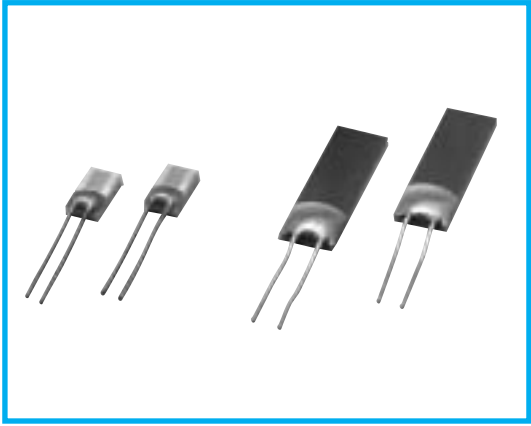


白金薄膜温度センサ
Platinum Thin-Film Temperature Sensor

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	PFR	PFS
抵抗値 (at 0℃) 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℃~100℃) Resistance temperature coefficient	3850±24ppm/℃	3850±24ppm/℃
使用温度範囲 Operating temperature	-40~600℃	-40~600℃
熱放散定数 (空气中 In-air) Dissipation constant	5.0mW/℃	1.5mW/℃
熱応答性 (水中 In-water) Heat response	0.4 seconds (90%)	0.2 seconds (90%)

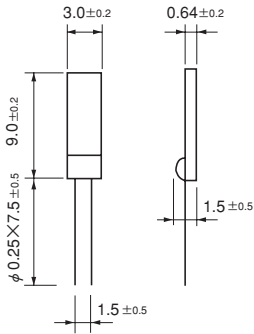
■環境特性 Characteristics

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

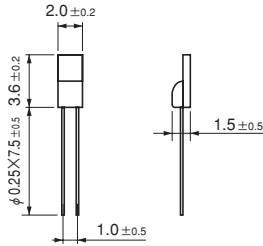
■規格 Standards

●形状・寸法 configuration (mm)

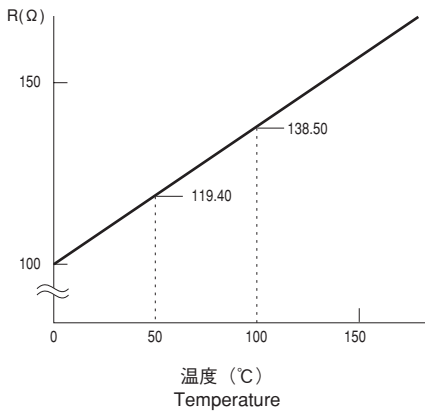
■ PFR (Radial type)



■ PFS (Small type)



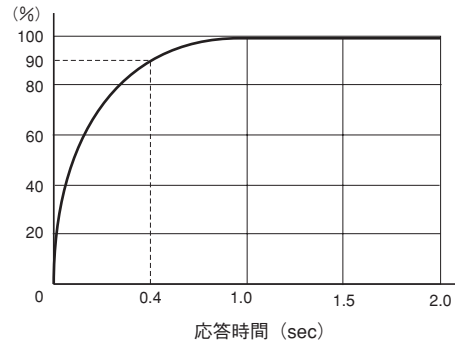
●抵抗—温度特性 Resistance—Temperature Characteristic



●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

