



Series "ZF"

High Temperature Strain Gauge



Compatible adhesive & Operational temperature
 NP-50: - 20~ + 300°C
 C-1: - 20~ + 200°C CN: - 20~ + 120°C

Operational temperature -20~+300°C
 Temperature compensation range +10~+100°C

GENERAL USE

| Gauge pattern | Type | Gauge size | | Backing | | Resistance in Ω | |
|--|--|-------------------------------------|-----|---------|------|-----------------|-----|
| | | L | W | L | W | | |
| <p>This is a foil gauge having a polyimide resin backing. Owing to the use of Ni-Cr alloy and special grid design for the strain sensing element, creep characteristics in high temperature has been much improved.</p> <p>●Single-element (G.F. 2.1 approx.)</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> ZFLA-1 </div> <div style="text-align: center;"> ZFLK-2 </div> </div> <div style="margin-top: 10px;"> ZFLA-6 </div> <p>●90°2-element Cross (G.F. 2.1 approx.)</p> <p>Plane type</p> <div style="display: flex; align-items: center;"> ZFCA-1-350 <div style="margin-left: 20px;"> (x3) </div> </div> <p>●45°/90°3-element Rosette (G.F. 2.1 approx.)</p> <p>Plane type</p> <div style="display: flex; align-items: center;"> ZFRA-1-350 <div style="margin-left: 20px;"> (x3) </div> </div> <p>Stacked type</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> ZFCAL-1 </div> <div style="text-align: center;"> ZFRAL-1 </div> </div> | | | | | | | |
| | | L : length W : width (Unit : mm) | | | | | |
| | ZFLK-2-11 | 2 | 0.5 | 5.4 | 1.4 | 120 | |
| | ZFLA-1-11 | 1 | 1.8 | 7.0 | 3.0 | 120 | |
| | ZFLA-3-11 | 3 | 1.8 | 10.5 | 3.5 | 120 | |
| | ZFLA-6-11 | 6 | 2.5 | 15.5 | 4.5 | 120 | |
| | ZFLA-3-60-11 | 3 | 0.7 | 7.7 | 2.6 | 60 | |
| | ZFLA-1-350-11 | 1 | 1.7 | 6.6 | 3.2 | 350 | |
| | ZFLA-3-350-11 | 3 | 3.2 | 10.2 | 5.1 | 350 | |
| | ZFLA-6-350-11 | 6 | 2.8 | 16.0 | 5.5 | 350 | |
| | 90° 2-element Cross, Plane type 350Ω | ZFCA-1-350-11 | 1 | 1.7 | 8.5 | 8.5 | 350 |
| | | ZFCA-3-350-11 | 3 | 1.4 | 10.5 | 10.5 | 350 |
| | Stacked type | ZFCAL-1-11 | 1 | 1.0 | φ5.4 | 120 | |
| | 45° /90° 3-element Rosette, Plane type 350Ω | ZFRA-1-350-11 | 1 | 1.7 | 8.5 | 8.5 | 350 |
| | | ZFRA-3-350-11 | 3 | 1.4 | 10.5 | 10.5 | 350 |
| | Stacked type | ZFRAL-1-11 | 1 | 1.0 | φ5.4 | 120 | |

For self-temperature-compensated (S-T-C) gauge, other linear thermal expansion coefficient is also available such as for stainless steel and aluminium alloy.

Each package contains 10 gauges.

Leadwire-integrated ZF series (made-to-order)

Operational temperature range varies with different materials of lead wire outer sheath. Before use, be sure the temperature range for lead wire.

| Lead wires | Operational temperature range | Gauge type exemplified | Colors of Lead wire |
|--------------------------------|---|----------------------------|--|
| 2-wire Parallel vinyl wire | -20~+80°C | L: ZFLA-3-350-11-3LJC | Grey |
| 3-wire Parallel vinyl wire | -20~+80°C | LT: ZFLA-3-350-11-3LJCT | Blue stripe |
| Crosslinked vinyl sheath wire | -10~+100°C | LJRT: ZFLA-3-350-11-3LJRTA | Red-Green-Black |
| 3-wire strand FEP sheath wire | -269~+200°C | 6F: ZFLA-3-350-11-6FA-3LT | Red-Green-Blue (7-core 0.18mm-dia.) |
| | | 6F: ZFLA-3-350-11-6FB-3LT | Red-Green-Blue (Single-core 0.2mm-dia.) |
| 3-wire strand PTFE sheath wire | -269~+200°C (+300°C usable for short time measurement) | 4F: ZFLA-3-350-11-4FA-3LT | Red-Black-White (7-core 0.16mm-dia.) |
| | | 4F: ZFLA-3-350-11-4FB-3LT | Red-Black-White (Single-core 0.2mm-dia.) |

* Red is independent wire.

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