

Platinum-Resistance-Temperature-Detector: CREG Series

Platinum-chip temperature sensors of the CREG type can universally use and are suitable for a wide range of applications in low and higher temperature ranges up to 500°C. Short-term use of the sensors at up to 550°C is admissible. The gold-plated connection wires are suitable for all common connection technologies: welding, soldering, and crimping. The operating temperature range is -70°C ... +500°C.

| | | | |
|--|---|------------------|--|
| Type | CREG Series | | |
| Operating temperature range | -70°C ... +500°C (temporarily 550°C) | | |
| Tolerance validity range DIN EN 60751 | 1/3B (F 0.1) | -0°C ... +150°C | |
| | A (F 0.15) | -30°C ... +300°C | |
| | B (F 0.3) | -50°C ... +500°C | |
| Resistance value | Pt100 Pt500 Pt1000 | | |
| Measuring/maximum current | Pt100: 1 mA ... 7 mA Pt500: 0.7 mA ... 3 mA Pt1000: 0.1 mA ... 1 mA | | |
| Measuring point | 2mm from the open end | | |
| Temperature coefficient | 3851 ppm/K | | |
| Long-term stability | max. R0-Drift 0.05 %/year | | |
| Horizontal pull force at wires | ≤8N | | |

| Available models | | | | | | | | | | | |
|--------------------|-------------------|-----|-----|-----|--------------------|-----|----|-------------------------|-----------------|---|---|
| Temperature sensor | | | | | Lead wire | | | | Tolerance class | | |
| Type | R ₀ /Ω | B | L | H | Material | D1 | L1 | R _L in mΩ/mm | 1/3B | A | B |
| CREG-1505-100 | 100 | 1.5 | 5.0 | 1.0 | Gold plated Nickel | 0.2 | 10 | 2.4 | • | • | • |
| CREG-1505-1000 | 1000 | 1.5 | 5.0 | 1.0 | | | | | • | • | • |
| CREG-2003-100 | 100 | 2.0 | 2.5 | 1.3 | | | | | • | • | • |
| CREG-2003-500 | 500 | 2.0 | 2.5 | 1.3 | | | | | • | • | • |
| CREG-2003-1000 | 1000 | 2.0 | 2.5 | 1.3 | | | | | • | • | • |
| CREG-2005-100 | 100 | 2.0 | 5.0 | 1.3 | | | | | • | • | • |
| CREG-2005-1000 | 1000 | 2.0 | 5.0 | 1.3 | | | | | • | • | • |

Dimensional tolerances: ΔB = ±0.2 / ΔL = ±0.5 / ΔH = ±0.2 / ΔS = ±0.1 / ΔD1 = ±0.01 / ΔL1 = ±0.5
Dimensions in mm

| Self-heating coefficients and response times | | | | |
|--|------------------------------------|--|---------------------------|------------------|
| Type | Self-heating coefficient E in K/mW | | Response times in seconds | |
| | Air (v = 3 m/s) | | in Air (v = 3 m/s) | |
| | | | t _{0,5} | t _{0,9} |
| CREG-1505 | 0.30 | | 2 | 6 |
| CREG-2003 | 0.35 | | 3 | 8 |
| CREG-2005 | 0.25 | | 3 | 9 |
| CREG-2010 | 0.15 | | 3 | 10 |

Changes and errors excepted