EVO9050A-X Resistance Standards



Technical Data

Applications

- **Transfer Standards**
- Working Standards
- **Reference Resistors**
- Calibration

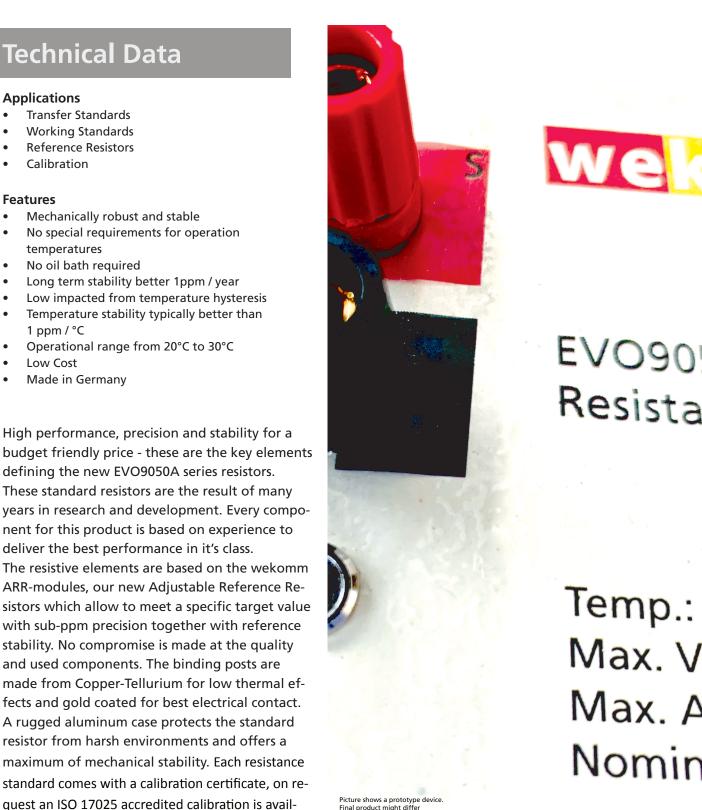
Features

- Mechanically robust and stable
- No special requirements for operation temperatures
- No oil bath required
- Long term stability better 1ppm / year
- Low impacted from temperature hysteresis
- Temperature stability typically better than 1 ppm / °C

High performance, precision and stability for a

- Operational range from 20°C to 30°C
- Low Cost
- Made in Germany

defining the new EVO9050A series resistors. These standard resistors are the result of many years in research and development. Every component for this product is based on experience to deliver the best performance in it's class. The resistive elements are based on the wekomm ARR-modules, our new Adjustable Reference Resistors which allow to meet a specific target value with sub-ppm precision together with reference stability. No compromise is made at the quality and used components. The binding posts are made from Copper-Tellurium for low thermal effects and gold coated for best electrical contact. A rugged aluminum case protects the standard resistor from harsh environments and offers a maximum of mechanical stability. Each resistance standard comes with a calibration certificate, on request an ISO 17025 accredited calibration is available. The issued certificate of calibration is part of delivery. The EVO9050A series is divided into two ranges, the standard range covers the decade values, the extended range allows to offer a broad vari-



ety of non standard values. The EVO9050A series is the perfect workhorse for daily use in laboratory and calibration applications.

Specifications



standard range

| | Nominal value | Adjustment to nominal | | Drift per year*1 | | Resistance change 18°C-28°C from 23°C | | maximum current | maximum voltage | Accredited Cali- bration* ² |
|---------------|------------------|-----------------------|----|------------------|---|--|---|--------------------|--------------------|---|
| | | (μΩ/Ω) | | (μΩ/Ω) | | (μΩ/Ω/°C) | | | | |
| Model | | | | | | | | | | |
| EVO9050A-10 | 10 | 30 | 10 | 10 | 5 | 5 | 3 | 100 | 5 | *2 |
| EVO9050A-100 | 100 | 10 | 3 | 5 | 2 | 2 | 1 | 50 | 10 | *2 |
| EVO9050A-1K | 1K | 10 | 3 | 5 | 2 | 2 | 1 | 50 | 10 | *2 |
| EVO9050A-10K | 10K | 10 | 3 | 5 | 2 | 2 | 1 | 10 | 10 | *2 |
| EVO9050A-100K | 100K | 30 | 10 | 10 | 5 | 5 | 3 | 2 | 50 | *2 |

extended range

| EVO9050A-5 | 5 | 50 | 10 | 10 | 5 | 5 | 3 | 100 | 5 | *2 |
|---------------|------|----|----|----|---|---|---|-----|----|----|
| EVO9050A-20 | 20 | 50 | 10 | 5 | 5 | 5 | 3 | 100 | 5 | *2 |
| EVO9050A-50 | 50 | 10 | 5 | 5 | 2 | 3 | 1 | 50 | 10 | *2 |
| EVO9050A-200 | 200 | 10 | 5 | 5 | 2 | 3 | 1 | 50 | 10 | *2 |
| EVO9050A-2K | 2K | 10 | 5 | 5 | 2 | 3 | 1 | 10 | 10 | *2 |
| EVO9050A-5K | 5K | 10 | 5 | 5 | 2 | 3 | 1 | 10 | 10 | *2 |
| EVO9050A-20K | 20K | 30 | 10 | 10 | 5 | 5 | 3 | 2 | 50 | *2 |
| EVO9050A-50K | 50k | 30 | 10 | 10 | 5 | 5 | 3 | 2 | 50 | *2 |
| EVO9050A-200K | 200K | 30 | 10 | 10 | 5 | 5 | 3 | 2 | 50 | *2 |

*1 After sufficient stabilization time, typical one year

Ordering Information

Model:

EVO9050A-10 10 Ω resistance standard **EVO9050A-100** 100 Ω resistance standard **EVO9050A-1K** 1K Ω resistance standard **EVO9050A-10K** 10K Ω resistance standard **EVO9050A-100K** 100K Ω resistance standard

EVO9050A-5 5Ω resistance standardEVO9050A-20 20Ω resistance standardEVO9050A-50 50Ω resistance standardEVO9050A-200 200Ω resistance standardEVO9050A-2K $2K\Omega$ resistance standardEVO9050A-5K $5K\Omega$ resistance standardEVO9050A-20K $20K\Omega$ resistance standardEVO9050A-20K $50K\Omega$ resistance standardEVO9050A-200K $200K\Omega$ resistance standard

Operation temperature: 20°C to 30°C Storage temperature: 0°C to 40°C repetitive Error (Hysteresis): 30°C to 20°C to 30°C: neglectable Error Size:

10cm (H) x 10cm(W) x 11,5cm(D) Weight:
0,8kg - 1,5 kg
depending on model



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^{*2} Uncertainty depending on CalLab - for specifications or special requirements contact us prior to ordering