# CROPICO 005/6/8

NEW

## High Accuracy Resistance Decade Boxes

## 5, 6 & 8 Decades

### Special Models for Pt 100 Simulation

A versatile range of resistance boxes available in 5, 6 & 8 decades. High Accuracy and wide range 0.001 ohm to 11 Megohms are combined in a compact lightweight case. The switches have gold plated contacts to ensure a low contact resistance and negligible thermal emf. Some models are particularly suited to Pt100 simulation with resolution as low as 0.001 ohm (≈0.0025°C).

| Model | N° Decades | Total Resistance | Resolution Ω | Resolution °C When simulating Pt100 | Residual Resistance |
|---|---|---|---|---|---|
| 005-B | 5 | 1,112.10Ω | 0.01 | 0.025 | 1Ω |
| 006-A | 6 | 1,112.11Ω | 0.001 | 0.0025 | 1Ω |
| 006-B | 6 | 11,112.10Ω | 0.01 | 0.025 | 1Ω |
| 006-C | 6 | 111,111Ω | 0.1 | N/A | 70 mΩ |
| 008-A | 8 | 111,112.11Ω | 0.001 | 0.0025 | 1Ω |
| 008-B | 8 | 1,111,112.1Ω | 0.01 | 0.025 | 1Ω |
| 008-C | 8 | 11,111,111Ω | 0.1 | N/A | 80 mΩ |

| 008-C | 008-B | 008-A | 006-C | 006-B | 006-A | 005-B | Decade | Accuracy | Current Max |
|---|---|---|---|---|---|---|---|---|---|
| - | - | ✓ | - | - | ✓ | - | 10 x 0.001 Ω | ±2% | 1.4A |
| - | ✓ | ✓ | - | ✓ | ✓ | ✓ | 10 x 0.01 Ω | ±1% | 1.4A |
| ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | 10 x 0.1 Ω | ±0.5% | 1.4A |
| ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | 10 x 1 Ω | ±0.1% | 300 mA |
| ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | 10 x 10 Ω | ±0.01% | 100 mA |
| ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | 10 x 100 Ω | ±0.01% | 30 mA |
| ✓ | ✓ | ✓ | ✓ | ✓ | - | - | 10 x 1K Ω | ±0.01% | 18 mA |
| ✓ | ✓ | ✓ | ✓ | - | - | - | 10 x 10K Ω | ±0.01% | 5 mA |
| ✓ | ✓ | - | - | - | - | - | 10 x 100K Ω | ±0.01% | 1.8 mA |
| ✓ | - | - | - | - | - | - | 10 x 1M Ω | ±0.01% | 0.5 mA |

**SWITCHES**
Contact material gold plated brass
Contact Resistance <5 m Ω
Insulation Resistance (all paths ≥ $10^{12}$ Ω)
Proof Voltage 1 kV

**RESISTANCE COILS**

**Temperature Co-efficient**
±3ppm/+20°C to +85°C
±5ppm maximum over
-55°C to +125°C
0.1, 0.01 and 0.001 dials
10ppm/°C

**Full Load Stability**
±35ppm/10,000 hours
±50ppm/26,000 hours

**No Load Stability**
±25ppm/10,000 hours
±35ppm/26,000 hours
over full temperature range; -55°C to 125°C

**Power Rating**
0.33 watt (+85°C)
0.25 watt (+110°C)

**Maximum Continuous Working Voltage**
Up to 250V DC

**Noise**
Essentially non-measurable
<1.5µV/µ°C max

**Thermal EMF**
<0.4µV/°C typical

**Encapsulation**
Moulded Epoxy

**Leads**
22 SWG tinned copper

**Windings**
Exclusive 'air cushion' technique provides virtually stressless elements for improved performance. Non inductively wound. Direction of winding reversed at half turns point.

Size 350 x 100 x 80 mm Weight: <1 kg NAMAS Certification Optional

- High Accuracy 0.01%
- High Performance
- Suitable for Pt100 Simulation
- 5, 6 & 8 Decades
- Long Term Stability ±20ppm/year
- Low Temperature Co-efficient ±3ppm/°C to + 85°C
- Gold Plated Switch Contacts
- Gold Plated Solid Copper Input Terminals
- Negligible Thermal e.m.f.s
- Light Weight
- Small Size
- With Certificate of Conformity
- In-House Test Figures Optional