# 005/6/8

## VERY HIGH ACCURACY DECADE BOXES WITH VERSATILE WIDE OHM RANGE

RESISTANCE

A versatile range of resistance decade boxes available in 5, 6 & 8 decades. High Accuracy and wide range 0.001 ohm to 11 Mega ohm are combined in a compact lightweight metal case. The switches have gold plated contacts to ensure a low contact resistance and negligible thermal E.M.F. Some models employ the Waidner Wolf technique to eliminate the errors switch contact resistance and are particularly suited to Pt100 simulation with resolution as low as 0.001 ohm (» 0.0025°C).

High accuracy 0.01% and high performance  Suitable for Pt100 and tranducer simulation  5, 6 and 8 Decades  Long term stability ± 20ppm/year  Low temperature co-efficient ± 3ppm/°C to + 85 °C	005/6/8
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ow tomporature co-officient + 3ppm/°C to + 85 °C	
Gold-plated switch contacts and solid copper nput terminals	-
Negligible thermal E.M.F.'s	
ight weight / small size	
Vith certificate of conformity	
n-house test figures optional	
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### **005/6/8 SPECIFICATIONS**

008-C	008-B	A-800	006-C	006-B	006-A	005-B	Decade	Accuracy	Current Max
							10 x 0.001Ω	± 2%	1.4A
							10 x 0.01Ω	± 1%	1.4A
							10 x 0.1Ω	± 0.5%	1.4A
							10 x 1Ω	± 0.2%	300mA
							10 x 10Ω	± 0.01%	100mA
		•					10 x 100Ω	± 0.01%	30mA
•		•					10 x 1kΩ	± 0.01%	18mA
		•					10 x 10kΩ	± 0.01%	5mA
•							10 x 100kΩ	± 0.01%	1.8mA
-							10 x 1MΩ	± 0.05%	0.3mA

Model	No. Decades	Total Resistance	Resolution	Sutable for Pt100 Simulation	Resolution °C when Simulating Pt100	Residual Resistance $\Omega$
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	_	_	$70 \text{m}\Omega$
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	_	_	80mΩ

#### Calibration

Calibration certificates including UKAS traceable are available on request

#### **Switches**

Contact material gold plated brass

Contact resistance = 5 milli ohm

Insulation Resistance (all paths = 10 giga ohm)

Proof voltage 1kV

#### Resistors

#### Temperature Co-efficient:

±3ppm / +20°C to + 85°C ±5ppm maximum over -55°C to

+125°C 0.1, 0.01, & 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:

-50°C to +125°C

#### Power Rating:

0.33 watt (+85°C) 0.25 watt (+110°C)

#### Maximum Continuous Working Voltage:

Up to 250 V dc

#### Noise:

Essentially non-measurable <1.5 mV/°C

#### Thermal E.M.F:

<0.4mV/°C typical

#### Encapsulation:

Moulded epoxy

#### Windings:

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

#### Weight

005 - 0.5kg

006 - 0.6kg

008 - 0.8kg

350mm x 100mm x 80mm (W H D) approx (all models)







