005/6/8

VERY HIGH ACCURACY DECADE BOXES WITH VERSATILE WIDE OHM RANGE

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).

KEY FEATURE	005/6/8
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	■
Gold-plated switch contacts and solid copper input terminals	■
Negligible thermal E.M.F.'s	■
Light weight / small size	■
With certificate of conformity	■
In-house test figures optional	■

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005/6/8 SPECIFICATIONS

008-C	008-B	008-A	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 Ω
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	—	—	70mΩ
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

Size

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