

# A COMPREHENSIVE DIGITAL OHMMETER WITH **TEMPERATURE COMPENSATION**

Covering a wide range of measurements from 1 micro ohm to 200 kilo ohm, the DO6 is a comprehensive measuring instrument with many features incorporated as standard. These benefits include manual and automatic range selection; temperature compensation for copper, referencing the measurement of copper to 20°C; voltage limiting facility for those wishing to measure switch contact resistance to International Standards, the measurement voltage is limited to 20mV. An RS232 serial interface gives full talk / listen capability, making it simple to add to an automated measuring system. Hi / Lo limits may be set over the interface with voltage-free contacts being available on the rear panel. For those wishing to measure inductive circuits e.g. motor windings, a special protection circuit may be initiated thus avoiding any problems that may arise due to induced high voltage.

KEY FEATURE	DO6
True 4 wire measurement eliminates lead resistance errors	•
8 push button ranges 20 milli ohm 200 kilo ohm	
Resolution of 1 micro ohm on 20 milli ohm range	
Manual / automatic range selection	
Temperature compensation for copper and brass	
Thermal E.M.F. compensation	
Dry circuit measurement: 18mV limited	
Open circuit lead warning	
RS232 interface	
Hi / Lo limits	



# **D06 SPECIFICATIONS**

Range	Resolution	Typical Current	Accuracy @ 20°C ±5°C 1 year	Temperature Coefficient/°C
20.000mΩ	1μΩ	1A	± (0.05% FS)	< 50ppm
200.00mΩ	10μΩ	100mA	± (0.05% FS)	< 50ppm
2.0000mΩ	100μΩ	10mA	± (0.05% FS)	< 50ppm
20.000Ω	1mΩ	10mA	± (0.05% FS)	< 50ppm
200.00Ω	10mΩ	1mA	± (0.05% FS)	< 50ppm
2.000kΩ	100mΩ	1mA	± (0.05% FS)	< 50ppm
20.000kΩ	1Ω	100μΑ	± (0.05% FS)	< 50ppm
200.00kΩ	10Ω	10μΑ	± (0.05% FS)	< 50ppm

#### Measurement

4 Terminal Kelvin/Thomson, eliminating lead resistance errors

# **Display**

4.5 digit 15mm 7 segment LED with polarity and overload indication. 2 digit 16 segment LED for unit display

#### Ranges

8 ranges manual selection with up/down keys, automatic selection with autorange function

#### **Auto Zero**

Permits the automatic zero of amplifiers and external circuits

# **Temperature Compensation**

Measurement compensated for the following referenced to 20°C:

Copper Cu = 3.93%/K

Brass Ms63 = 1.50%/K

Brass Ms80 = 1.60%/K

Ambient sensed with Pt 100 sensor

#### **Relay Output**

For the pre-selected upper and lower limit values "Too small",

"Correct", "Too large"

Contact load = 30W max 48V 1 Amp

# **Dry Circuit Measurement**

In accordance with DIN 41640 part 4 and IEC - 132-1

Open circuit voltage limited to 18mV

#### Interface

RS232 25 pin D-Bush talk listen function

# **Terminals**

4mm safety sockets

#### **Working Temperature**

0°C to 50°C rel. humidity 90% max. non-condensing

# **Storage Temperature**

-20°C to +60°C

# **Mains Supply**

230 Volts +6% - 10%

45Hz to 65Hz approx. 30VA

# Safety

IEC 1010 Protective Class 1

### **Dimensions**

255mm x 90mm x 263mm (W D H) approx

# Mass

5kg approximately

CODE -	DO6 OPTIONS
HS01-P	Duplex handspikes with 3 metre lead length
HS02-P	Duplex handspikes with 3 and 15 metre lead length
LS03-P	Lead set with 3 metre leads and terminated with large Kelvin clips type KC3
LS04-P	Lead set with 3 metres and 15 metres lead length terminated in large Kelvin clips type KC3
LS05	Lead set with 4 x 1 metre leads terminated with banana plugs, 4 x Crocodile clips, 4 x test probes and 2 x Kelvin clips type KC1
LS06-P	Lead set with 1 metre leads terminated in miniature Kelvin clips type KC2
PT02-D06	Temperature probe with 2 metre lead length
RSL-03	RS232 Cable





