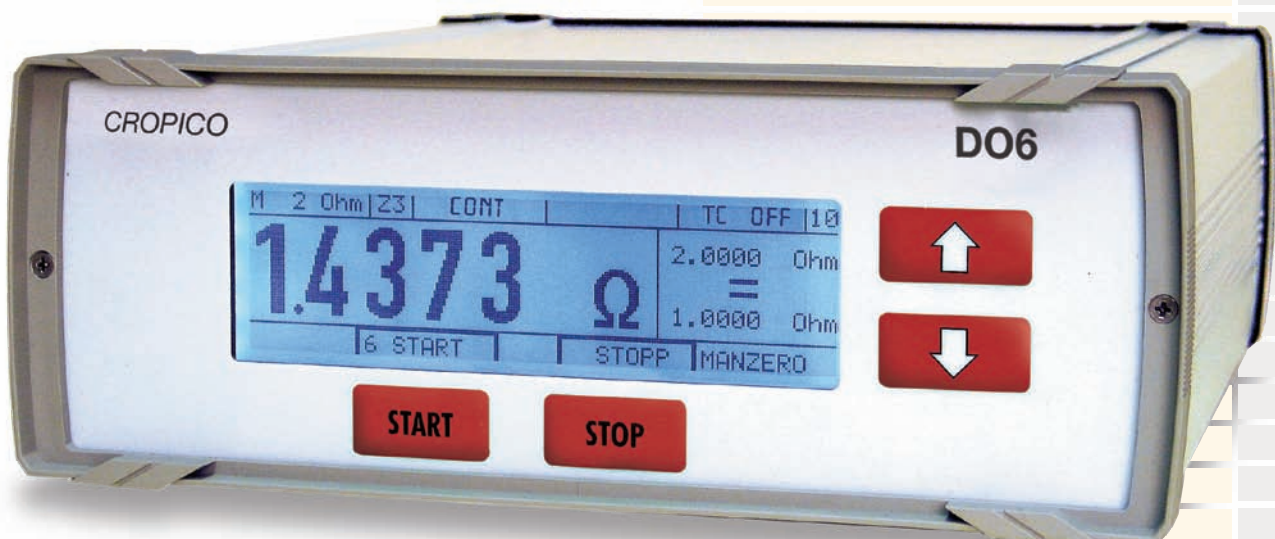


# DO6

## 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	■



# DO6 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	100μA	± (0.05% FS)	< 50ppm
200.00kΩ	10Ω	10μA	± (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 ▾	ITEM ▾	DO6 OPTIONS
C02	1 metre cable clamp with metal base for the precise measurement of 1 metre cable samples 0.1...100mm <sup>2</sup>	
C02A	1 metre cable clamp with metal base for the precise measurement of 1 metre cable samples 1...1000mm <sup>2</sup>	
C03	1 metre cable clamp with water bath for the precise measurement of 1 metre cable samples 1...1000mm <sup>2</sup>	
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-DO6	Temperature probe with 2 metre lead length	
RSL-03	RS232 Cable	