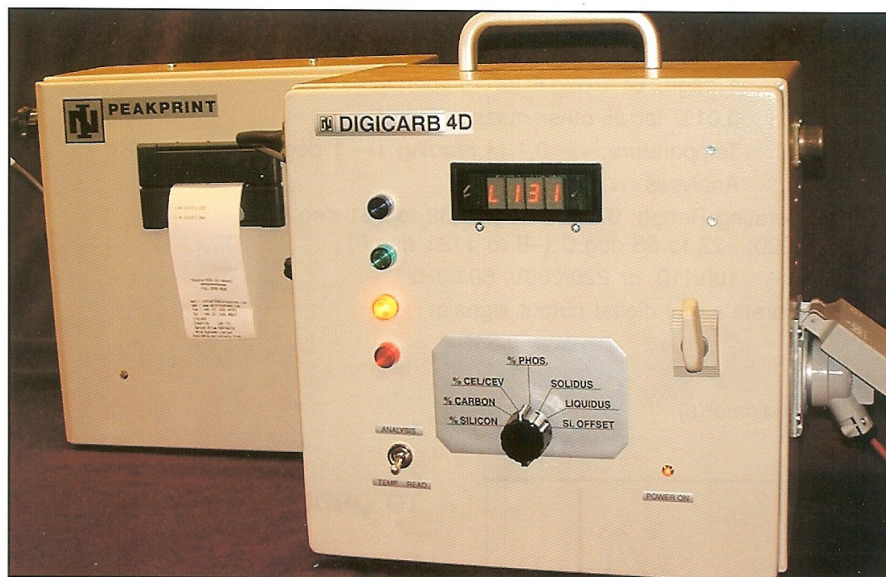


DIGICARB 4D

AUTOMATIC THERMAL ANALYSER FOR MOLTEN IRON



DIGICARB 4D is a microprocessor based digital instrument for the automatic Thermal Analysis of molten iron. It is designed for use with plug-in, fast response, Type 'K' thermocouple sample cups. Digital techniques used ensure maximum accuracy & reliability. It supersedes the original Digicarb 2, Analogue version.

The instrument is housed in a steel, dust-proof case which may be bench, panel or wall-mounted.

A 7-position switch enables selection, for continuous monitoring of:

- Liquidus Temperature
- Solidus Temperature
- Carbon Equivalent Liquidus (CEL) or C.E. Value (CEV) %
- Carbon %
- Silicon %
- Phosphorus % – a preset, adjustable value
- Silicon Offset % – preset, adjustable value

Silicon Offset adjustment allows the effect of residual elements on the Arrest Temperature, to be allowed for: Alternatively, it may be used to enable the Si % reading to be tuned to the Spectrum Analyser value.

A separate 2-way switch overrides the above 'Analysis' selection and allows the cooling curve temperature to be continuously monitored: Computing continues, 'L' & 'S' are momentarily displayed as Liquidus & Solidus temperatures are determined.

Inside Panel switches enable selection of:

- C.E.L. or C.E.V. %
- Degrees Celsius or Fahrenheit
- BCIRA formulae, for Tectip/Carbon Cup or Quik-Cup formulae.
- 'Measure' or 'Calibrate Mode', allows instrument to be used, alternatively, as a Carbon & Silicon calculator.
- UP/DOWN (Increase/Decrease) buttons, when in 'Calibrate Mode', enable P %, Si Offset % and other parameters to be adjusted: DIGICARB 4D can be fine tuned to your Cooling Curve.
- Separate RS232 output sockets enable downloading to remote Printer & Computer.
- A windows 95/98/2000/NT/XP Input/Output Program Disc is provided for your computer.
- An RS485 output socket provide drive for repeat indicator(s).



NORTHERN INSTRUMENTS (LEEDS)

72 ARMLEY LODGE ROAD, LEEDS LS12 2AT
UNITED KINGDOM

Internet: <http://www.northern-instruments.com> Email: info@northern-instruments.com



Telephone: (+44) (0) 113 279 1054
Facsimile: (+44) (0) 113 263 6487

SPECIFICATION

Range: 0 to 1372 deg.C for NiCr/NiAl Type 'K' thermocouple
or 0 to 2500 deg.F for NiCr/NiAl Type 'K' thermocouple
2.50 to 4.80% for C.E.L. or C.E.V.
2.10 TO 4.20% Carbon
0.50 to 3.60% Silicon
0.00 to 0.99% Phosphorus
-0.99 to +0.99% Silicon Offset

Resolution: 1 deg.C or 1 deg.F for Temperatures
0.01% for all other measurements

Accuracy: Temperature: +/- 0.1 of reading +/- 1 deg.C or F
Analyses: +/- 0.1%

Ambient Temperature Operating Range: 0 to 55 deg.C (32 to 131 deg.F) or
Siberian Specification, SS20: -22 to 55 deg.C (-8 to +131 deg.F)

Power Supply: 100/110, or 220/230V, 50/60Hz

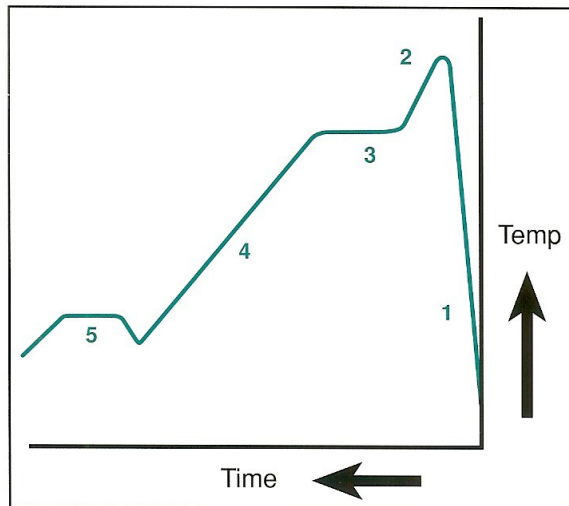
DIGICARB 4D has 3 separate serial digital output signals:

RS232 to Printer

RS232 to Computer

RS485 to Repeat/Slave Indicator(s)

Built-in Real Time Clock



TO ORDER – Specify:

Mains supply voltage and frequency.

Make and Type of plug-in thermocouple to be used for thermal analysis.

- 1) Initial temperature rise
- 2) Subsequent fall from peak
- 3) LIQUIDUS arrest temperature (T_L)
- 4) Second temperature fall to:
- 5) EUTECTIC arrest temperature (T_E) – SOLIDUS or Undercooled Temperature (T_C)

QUALITY ASSURANCE

A Certificate of Conformance is supplied as standard.
A UKAS Traceable Calibration Certificate is charged for additionally.

Instruments are guaranteed for one year, against faulty components or workmanship, provided that the instrument has not been abused.

Our policy is one of continuous improvement of our products. We therefore, reserve the right to amend the specification given in this document without prior notice.

DISTRIBUTED BY:



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