

Heraeus



Digilance IV
Digilance IV Memory -
Temperature Measurement
in Ferrous and
Non-ferrous Metal



Electro-Nite

Digilance IV and Digilance IV Memory - for Reliable Temperature Measurement in Ferrous

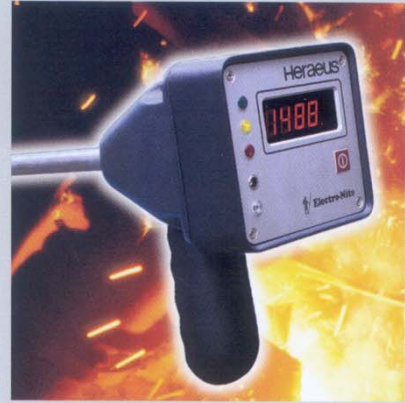
During process control of ferrous and non-ferrous metal, accurate temperature measurement is of vital importance in order to produce products of the desired quality.

Digilance IV

Digilance IV – a portable instrument – is particularly suited for use in small and medium sized melting pots. Its use

is particularly suited to those foundries where it is necessary to measure bath temperature in several locations with one instrument.

The ergonomically designed light aluminium casting housing is easy to handle, yet is characterised by its rugged construction to meet the most demanding conditions on the shop floor. Digilance IV comes equipped with a firmly connected immersion lance. The immersion lance is easy to



Digilance IV



change and can be used with all types of Positherm® probes.

- » Portable, battery operated hand-held measuring instrument
- » Robust metal housing

s and Non-ferrous Metal

Instrument Design Features

Digilance IV is supplied with rechargeable batteries to provide flexible operation.

Thermocouple types S, R, B and K can be used with the same instrument.

User-friendly digital switches are incorporated inside the housing to allow convenient adjustment of instrument functions, measuring ranges and evaluation parameters.

Bath temperature is determined by tolerance comparison and averaging techniques. The measured temperature is displayed on a bright LED display.

- » **Stable precision processor to provide accurate digital interpretation**

- » **Self compensating cold junction to avoid temperature drift errors**

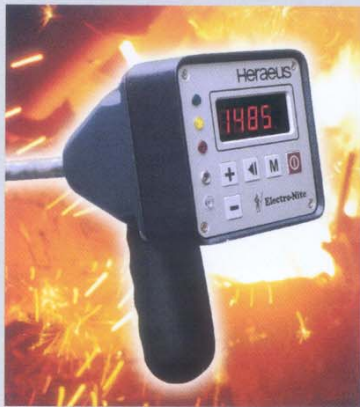
- » **Linearization program for thermocouple types S, R, B and K**

- » **Visual and acoustic measuring sequence signals**

"ready", "measuring" and "complete". The end of measurement is also signalled by the use of an electronic buzzer.

The bright LED display can be seen even when the ambient light conditions are poor. Three coloured LEDs indicate measurement status,





Digilance IV Memory

Digilance IV Memory

The Digilance IV Memory comes equipped with all the features of standard Digilance IV plus the ability to store up to 500 measurement values. In addition, the actual measurement time and

heat number are automatically logged in the memory.

Stored data can be rapidly transferred to a PC via an infrared interface. This digital data transfer eliminates the risk of human errors when copying and transferring temperature data thus providing an extremely reliable measurement system.

The Digilance IV Memory is controlled by an integrated rugged keypad which enables input of heat number. Measurement parameters and re-programming of the instrument can be input by means of a PC via the IR interface. A special PC software for Windows is provided to enable the stored data to be displayed on the customer's PC. The data can then be archived or transferred to other

programs for ongoing process control.

- » 4-digit heat number input
- » Date, time
- » Measuring data storage for 500 measurements
- » Infrared data transfer
- » Instrument programming with PC via infrared interface
- » Windows PC software for data visualization
- » Easy transfer to other programs for ongoing process control

Direct digital data transfer to PC via infrared interface



Technical Data

Digilance IV			
Measuring ranges	four adjustable measuring ranges linearized acc. to IEC 584/ IPTS 68/ ITS 90 and IPTS 48 Dip measurement type S, R, B Continuous measurement type K	type S (Pt 10% Rh/Pt) type R (Pt 13% Rh/Pt) type B (Pt 30% Rh/Pt 6% Rh) type K (NiCr-Ni) type K continuous measurement	400 – 1760 °C (752 – 3200 °F) 400 – 1760 °C (752 – 3200 °F) 400 – 1820 °C (752 – 3308 °F) 100 – 1370 °C (212 – 2498 °F) 100 – 1370 °C (212 – 2498 °F)
Temperature evaluation procedure	plateau computation with tolerance comparison and averaging	continuous type K with/ without hold function (maximum value measurement)	
Reference temperature	0 °C	internal cold junction	
Accuracy	± 1 °C	with ambient temperature 0 °C up to +50 °C	
Temperature display	LED 4-digits height of numbers 14.2 mm	°C/ °F switchable	
Resolution	indicator resolution 1 °C (1 °F)	internal resolution 0.1 °C	
Measuring sequence display	"ready", "measurement", "complete", displayed by colored LED's	signalling of "complete" by electronic buzzer	
Operation	one-key operation	on/ off metal keypad	
Power supply	4 NiMH rechargeable batteries (type AA, 1100 mA) rated voltage 1.2 V	intelligent charging circuit with overloading protection	
Battery load control	visually	over LED	
Operational data	charging voltage power consumption environment operation	12 V, 400 mA 0.5 VA 0 °C up to + 50 °C 90% humidity, not condensing	
Housing	light alloy housing with handle, protection IP 54	dimensions: approx. 215 x 120 x 165 mm weight (without lance) approx. 1,9 kg	

Digilance IV Memory - additional features

Measuring data memory	memory for 500 measurements
Input of heat numbers	numerical, 4-digit
Date, time	battery buffered real time clock
Data interface	infrared (IR)
Operation	5-key metal keypad

Further technical details on request. We reserve the right to modify illustrations and technical data without notice.

Scope of supply

Digilance IV	
incl. plug power supply, input voltage 90 – 264 V AC	output voltage 12 V DC, 800 mA and mains adapter
Digilance IV Memory	
incl. plug power supply unit, mains adapter, infrared adapter for connection to RS 232 interface of PC	PC parameter setting software for Windows® operating system, starting from Win 95

Windows is a trademark of Microsoft Corporation.

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Certified Quality System
DIN EN ISO 9001:2000
DIN EN ISO 14001