



Digilance V

Handheld Temperature Measurement Instrument
for Molten Metal

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Introduction

Digilance V is the latest most advanced handheld temperature instrument for molten metal applications available today.

- Using platinum-based immersion thermocouples, the instrument can **measure temperatures up to 1820°C (3308°F)** in all ferrous and non-ferrous applications.
- Ready (green), Measure (yellow), and Complete (red) **LEDs signal the measurement status**, with a buzzer on completion.
- The **temperature result is locked on the display** after a typical measurement time of 5-8 seconds and the **last 500 measurements are internally stored**.
- **Standard configuration** ensures that the instrument is plug and play.
- Available as a **Standard Measure-and-Display model** and a **Wireless model**, which incorporates real-time wireless data transfer.

Standard Features

Rugged, Shop-Floor Construction

- Sealed, Cast-Aluminum Housing
- Impact Protecting Rubber Cover

Large, Highly Visible Display

- Temperature Result (°C or °F)
- Battery Level Indicator
- Date and Time

Advanced Power System

- Long life Lithium Ion Battery – 40 hours usage per charge
- Integrated Battery Charger
- Motion Activated Power Management

Reliable Measurement Technology

- Temperature Accuracy within 1°C (1.8°F)
- Advanced Detection Method that captures the most accurate temperature result
- Thermocouple types S, R, B, and K

Wireless Communication

The Digilance system has the **optional capability to wirelessly transmit measurement results**. After each measurement is taken, the instrument transmits the measurement result to a Receiver Box. The signal is then further transmitted by a USB connection to a computer, where the data is stored for further process analysis.

Advanced configuration allows for the input of Heat Number and Measurement Location information to track measurement results in the production process. This information can be entered directly on the Digilance keypad.

The portability and versatility of Digilance Wireless enables the operator to use the instrument at several measuring locations while maintaining measurement traceability.

System Information

Software

- Included software can receive live measurement results and export data from the instrument.
- Installation with optional MeltControl Foundry system provides plant-wide measurement data storage capabilities.
- Programmable Data Telegram can be used to communicate with additional systems, such as wall mounted displays.

Hardware

- USB-Connected Receiver Box used for transmitting data to a computer.
- Additional communication interface Receiver Box options are available.
- Up to 8 Digilance instruments can be connected to each Receiver Box.
- Wireless Range of up to 100m

Typical Wireless Setup



Typical Digilance Assembly



Technical data

Dimension	Description
Measurement application	Single or Multi-dip temperature measurement
Measurement Range According to IEC 60584	Type S (Pt 10%Rh / Pt): 400 to 1768°C (752 to 3214°F) Type R (Pt 13%Rh / Pt): 400 to 1768°C (752 to 3214°F) Type B (Pt 30%Rh / Pt 6%Rh): 400 to 1820°C (752 to 3308°F) Type K (Ni-Cr / Ni): 400 to 1372°C (752 to 2502°F)
Thermocouple Tables	IPTS 48 / IPTS 68 / ITS 90
Thermocouple Accuracy	Better than +/- 1°C (1.8°F) between 0°C (32°F) and 50°C (122°F) ambient temperature
Result Display	Resolution: configurable 1° or 0.1° Units: °C or °F
Data Storage	Up to 500 measurements
Operating Ambient Temperature Range	-20°C (-4°F) to 60°C (140°F), max 90% RH non-condensing
Size and Weight	140 x 170 x 230 mm (without lance installed) - 1.9kg (4.2lbs)
Power Supply	Lithium Ion Battery Pack (3.5Ah - 7.2V) 12V DC, 2A max charging voltage Battery life of 40 operating hours (nominal)
Wireless Communication (optional)	Range of 100 meters - line of sight Frequency hopping 2.4 GHz ISM unlicensed band technology Max 10 mW transmit power
Receiver Box for Wireless Data Transfer (optional)	Dimensions (mm): length = 108, width = 75, height = 32 Weight: 187 g Power: 12V DC, 1.5A, center pin positive
Memory Software (included)	Live measurements—export data—configure instrument *Windows® XP or above Compatible with Digilance IV
MeltControl Software (optional)	*Windows® 7 SP1 or above
Immersion Lance Options	Lances may be ordered separately—check with your local sales representative

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