

# IMPAC IGA 15 PLUS

Portable digital pyrometers for non-contact temperature measurement of metals, ceramics, and graphite between 250 and 1800°C (482 and 3272°F).



The Impac® IGA 15 plus infrared thermometers are high-quality, battery driven portables for non-contact temperature measurement. The instruments feature a built-in data logger (750 values), a laser targeting light, and a short exposure time. With the high-quality optics, accurate measurements of small objects can be made at a distance of 4 mm (1.25 mm with the close-up lens).

## PRODUCT HIGHLIGHTS

- Easy to handle
- Large illuminated LC display
- Laser aiming
- Built-in data logger
- Long temperature range
- High accuracy
- Fast temperature detection, only 20 ms
- Measurement of smallest objects from 1.25 mm
- Integrated additional functions
- USB interface
- Analyzing software PortaWin (optional)

## TYPICAL APPLICATIONS

- Preheating, tempering, hardening, normalizing
- Forging, brazing
- Sintering
- Welding, rolling
- Founding

## AT A GLANCE

### Temperature Range

250 to 1800°C (482 to 3272°F)

### Spectral Range

1.45 to 1.8  $\mu$ m

### Measurement Uncertainty

0.6% of measuring value

### Repeatability

< 0.2% of measuring value

### Optics

Focusable: 1000 to 12,000 mm

### Field of View

Standard: 4 mm  
Close-up Lens: 1.25 mm

### Alignment

Laser targeting light

# IMPAC IGA 15 PLUS

## OVERVIEW

The IGA 15 plus is a robust, digital, and accurate pyrometer with a built-in data logger (750 values) for non-contact temperature measurement of metals, ceramics, and graphite with a temperature range of 250 to 1800°C.

The instrument is equipped with a laser targeting light. The size of the laser spot has approximately the same size as the measuring spot.

The instrument has a maximum value storage, minimum value storage, average and difference function, as well as an acoustic alarm.

The high quality optics enables the measurement of small objects from 4mm, or when combined with the close-up lense, from 1.25 mm.

With the short exposure time of only 20 ms, even fast moving objects can be measured accurately.



## TECHNICAL DATA

### Measurement Specifications

Temperature Range	250 to 1800°C (482 to 3272°F)
Spectral Range	1.45 to 1.8 µm
Measuring Unit	°C/°F, switchable
Emissivity ε	Adjustable from 10% to 100% in steps of 1%
Measurement Uncertainty	0.6% of measurement value (ε = 100%, T <sub>amb.</sub> = 23°C)
Repeatability	< 0.2% of measurement value
Temperature Coefficient	0.01% of measuring value in °C, per °C deviation of ambient temperature of 23°C
Exposure Time t <sub>90</sub>	20 ms (with dynamical adaptation at low signal levels)
Measuring Functions	Display of maximum, minimum, average, or difference value (MAX, MIN, AVG, DIF)
Alarm Function	Adjustable acoustic alarm (HI)

### Optical Specifications

Laser Targeting Light	Laser class 2, max. laser power level < 1 mW, λ = 650 nm
Optics	4 mm (standard), 1.25 mm (close-up lens)

### Electrical

Power Supply	9 V battery (IEC 6LR61) or 9 V-NiMH rechargeable battery (e.g. Varta type 5622)
Battery Operation Time	50 hours with 9 V battery (without laser and display illumination) 15 hours with 9 V rechargeable battery (without laser and display illumination)

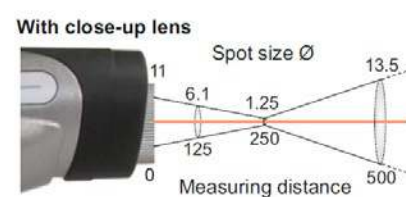
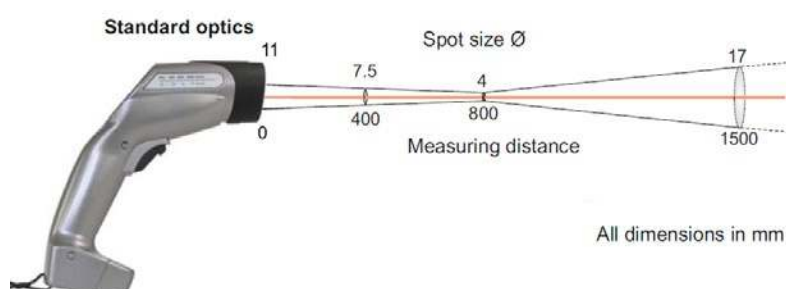
## TECHNICAL DATA (CONTINUED)

Environmental Specifications	
Protection Class	IP20
Operating Temperature	0 to 60°C (32 to 140°F)
Storage Temperature	-20 to 70°C (-4 to 158°F)
Relative Humidity	Non-condensing conditions
Weight	340 g (~0.75 lbs)
Housing	ABS
CE Label	According to EU directives about electromagnetic immunity

Interface	
Display Illumination	Automatically adjusting to ambient light conditions
Detector	InGaAs
Temperature Display	3 values per s
Temperature Resolution	On the display: 0.1°C (°F) from 250 to 999.9°C (482 to 999.9°F), 1°C from 1000 to 1800°C (1000 to 3272°F) Via interface: 0.1°C or 0.1°F

Communication	
Serial Interface	USB 2.0
Response Time $t_{90}$	10 ms
Data Storage	Manual data logging via push button or automatic logging in adjustable time intervals [s]: 0.02, 0.04, 0.1, 0.2, 0.5, 1, 2, 5, 10, 20, 50
Fixing Thread	Photo tripod thread 1/4" - 20 UNC

## OPTICS



## REFERENCE NUMBERS

PN	Description
3 887 520	IGA 15 plus
3 749 150	NiMH rechargeable battery 9 V
3 858 540	Universal battery charger for 9 V batteries
3 858 490	Battery charger with charging connector
3 858 550	Close-up lens
3 858 520	Belt bag
3 858 570	CD with analyzing software PortaWin and USB cable
3 858 580	USB cable

### Scope of Delivery

Instrument, battery, carrying case, inspection sheet,  
and user manual

## ACCESSORIES



Belt bag



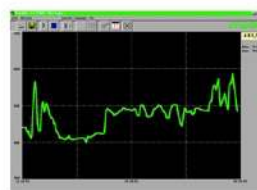
Close-up lens



Battery charger



CD PortaWin and USB cable



Screenshot PortaWin



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### PRECISION | POWER | PERFORMANCE

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