Affordable, high temperature short wavelength pyrometer for non-contact temperature measurement of metals between 250 and 1800°C

IGA 15 *plus*

$C\epsilon$

- 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* (option)

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

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

The instrument has a maximum value storage, minimum value storage, average and difference function as well as an acoustic alarm.
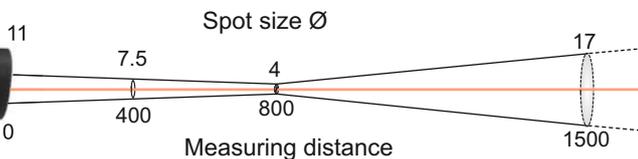
The high quality optics enables the measurement of small objects from 4 mm, in combination with the close-up lens even from 1.25 mm.

With the short exposure time of only 20 ms even fast moving objects can be measured exactly.
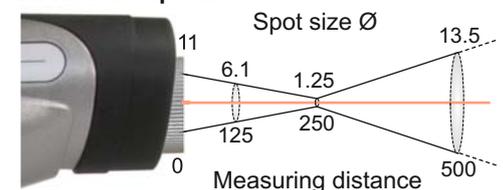
Typical applications:
- preheating, tempering, hardening, normalizing
- forging, brazing
- sintering
- welding, rolling
- founding

Standard optics

Spot size Ø

11
7.5
4
17
0
400
800
1500

Measuring distance

All dimensions in mm

With close-up lens

Spot size Ø

11
6.1
1.25
13.5
125
250
500
0

Measuring distance

Technical Data

Temperature range:	250 - 1800°C
Spectral range:	1.45 - 1.8 µm
Detector:	InGaAs detector
Accuracy:	0.6% of measuring value ($T_{amb.}$ = 23°C, ε = 100%)
Repeatability:	0.2% of measuring value
Temperature coefficient:	0.01% of measuring value in °C per °C deviation of ambient temperature of 23°C
Exposure time t_{90}:	20 ms (with dynamical adaptation at low signal levels)
Emissivity ε:	10 - 100%, adjustable in 1% steps
Temperature display:	3 values / s
Temperature resolution:	On the display: 0.1°C (°F) from 250 to 999.9°C (482...999.9°F), 1°C from 1000 to 1800°C (1000...3272°F) via interface: 0.1°C or 0.1°F
Display illumination:	automatically adjusting to ambient light conditions
Measuring unit:	°C / °F, switchable
Measuring functions:	Display of maximum or minimum or average or difference value (MAX, MIN, AVG, DIF)
Alarm function:	Adjustable acoustic alarm (HI)
Data logger:	750 values; readable at pyrometer: temp. value with storage number; readable via interface: value with storage number, time, date, emissivity, unit, max. and min value of the measurement series
Storage function:	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
Serial interface:	USB 2.0
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)
Charging connector:	For IMPAC battery charging unit 3 858 490
Laser targeting light	Laser class 2, max. laser power level < 1 mW, λ = 650 nm
Operating temperature:	0 - 60 °C
Storage temperature:	-20 - 70 °C
Rel. humidity:	Non condensing conditions
Housing:	ABS
Weight:	340 g
Fixing thread:	Photo tripod thread 1/4" - 20 UNC
Protection class:	IP20
CE-label:	According to EU directives about electromagnetic immunity

Reference numbers

3 887 520   IGA 15 *plus*   (scope of delivery: instrument, battery, carrying case, inspection sheet, user manual.)

Accessories:

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

Overview Accessories
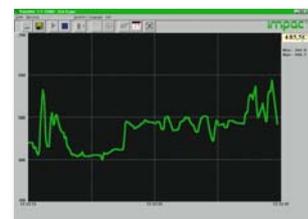

Belt bag   Close-up lens   Battery charger for the charging connector of the pyrometer   CD *PortaWin* and USB cable   Screenshot *PortaWin*

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