

## LSi-, LGAi - Series, Fibre optics pyrometer

Stationary infrared pyrometer with fibre optics cable and optical head. Designed for applications which are difficult to access or locations with high ambient temperatures. For temperatures between 300 and 2500 °C and also the very small spot sizes make the instrument attractive to many industrial processes. The LSi-, LGAi- series comes with an interface plug to operate the instrument online. The IP 10-USB interface module (with software PyroControl) is needed to connect the pyrometer directly to the computer USB-interface. Parameters like emissivity, temperature subrange and response time can be adjusted.

### Typical applications:

Steel industry  
Induction heating  
Machinery solutions

### Scope of delivery:

LSi-, LGAi - type incl. 1.5 m fibre optics and selected vario optics, inspection sheet, user manual, supply in INFRAPOINT-Box  
The connection cable is **not included** in scope of delivery.  
Please order the cable separately!



**300 ... 2500 °C**  
**572 ... 4532 °F**

Air purge unit LVO 25  
Order-No. 4 749 920

Technical Data	LSi-18	LSi-25	LGAi-13	LGAi-18
Measuring range	650 ... 1800 °C	800 ... 2500 °C	300 ... 1300 °C	350 ... 1800 °C
Spektral range	0.8 ... 1.1 µm	0.8 ... 1.1 µm	1.45 ... 1.8 µm	1,45 ... 1,8 µm
Optics	Vario optics, adjustable distance 80 to 300 mm (LVO 25); 250 to 1000 mm (LVO 35)			
Accuracy	0.5 % of measuring range	0.5 % of measuring range	0.5 % of measuring range	0.5 % of measuring range
Repeatability	0.1 % of measuring range in °C + 1 °C	0.1 % of measuring range in °C + 1 °C	0.1 % of measuring range in °C + 1 °C	0.1 % of measuring range in °C + 1 °C
Response time t <sub>90</sub>	20 ms	20 ms	20 ms	20 ms
Emissivity	5 ... 100 %, adjustable	5 ... 100 %, adjustable	5 ... 100 %, adjustable	5 ... 100 %, adjustable
Integ. LED-pilot light	yes	yes	yes	yes
Integ. peak picker mode	yes, adjustable	yes, adjustable	yes, adjustable	yes, adjustable
Power supply	24 V DC ± 25 %	24 V DC ± 25 %	24 V DC ± 25 %	24 V DC ± 25 %
Output	linear, 4 ... 20 mA	linear, 4 ... 20 mA	linear, 4 ... 20 mA	linear, 4 ... 20 mA
Max. Load	700 Ohm (24 V)	700 Ohm (24 V)	700 Ohm (24 V)	700 Ohm (24 V)
Power consumption	max. 0.6 W	max. 0.6 W	max. 0.6 W	max. 0.6 W
Safety class	IP 65 (acc. to DIN 40050)	IP 65 (acc. to DIN 40050)	IP 65 (acc. to DIN 40050)	IP 65 (acc. to DIN 40050)
Operating temperature	0 ... 70 °C	0 ... 70 °C	0 ... 70 °C	0 ... 70 °C
Storage temperature	-20 ... 70 °C	-20 ... 70 °C	-20 ... 70 °C	-20 ... 70 °C
Weight	approx. 700 g	approx. 700 g	approx. 700 g	approx. 700 g
with Optics LVO 25 Order-No.	4 331 250	4 332 250	4 334 250	4 333 250
with Optics LVO 35 Order-No.	4 331 350	4 332 350	4 334 350	4 333 350

Please note: The connection cable is **not included** and must be ordered separately!

### Optical head LVO 25

Distance (mm)	80	100	120	140	160	180	200	220	240	260	280	300
Spot size (mm)	1.6	1.8	2	2.2	2.4	2.6	2.8	3.1	3.4	3.7	4	4.3
Optical head, total length (mm)	63.2	60	58.1	56.2	55.4	54.6	54	53.6	53.1	52.7	52.4	52.1

### Optical head LVO 35

Distance (mm)	250	300	400	600	800	1000
Spot size (mm)	3.5	4.5	5.5	7	9	11
Optical head, total length (mm)	76.3	74.5	71.3	69.1	67.4	66.6

Accessories	Order-No.
Ball- and socket mounting for LVO 25	4 749 930
Ball- and socket mounting for LVO 35	4 749 931
Air purge for LVO 25	4 749 920
Air purge for LVO 35	4 749 921

### Connection cable

2 m	4 749 450
5 m	4 749 460
10 m	4 749 470

### Additional fibre optics total length:

2.50 m	4 749 952
5 m	4 749 954

Special length on request.

Special length on request

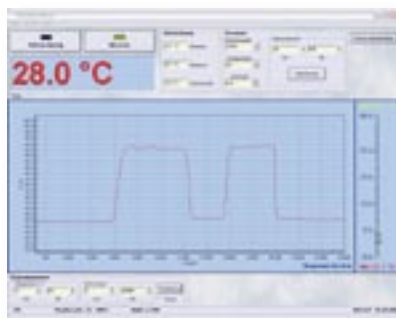


Ball- and socket mounting for LVO 25  
Order-No. 4 749 930

## IP 10-USB with the Software PyroControl

The **IP 10-USB** Interface module comes with the software *PyroControl* as standard. This software enables to configure the INFRAPOINT pyrometers of the series *IKS-Ti*, *-Si* and *-GAI* as well as the fibre optics units *LSi* and *LGAi* via PC or Laptop computer online.

Essential pyrometer type related parameters like response time, temperature subrange or emissivity can set to application specific requirements.



**IP 10-USB** incl. software  
Order-No. 4 749 860

**Scope of delivery:**

**IP 10-USB** incl. software *PyroControl*, inspection sheet, user manual, supply in INFRAPOINT-Box



Fig.: Connection example: *IKS-Ti* - *IP 10-USB* - Laptop

## HP 04 - Hand-held set up unit

This Multi - function hand-held set up unit combines 3 instruments in just on housing:

**The HP 04 to detect the emissivity:**

With a connected probe, the unit reads the temperature of the pyrometer and the probe at the same time and shows that on the screen. In that way an automatic detection of the emissivity is possible. A with the *HP 04* calculated emissivity can be stored and transferred to the pyrometer. A wide range of probes is available at INFRAPOINT's temperature probes to find a suitable surface probe to fit your application.

**The HP 04 for contact temperature measurement:**  
(using a probe)

The *HP 04* comes with a standard thermocouple type K socket to measure in a range between -100 ... 1300°C. Choose between maximum, minimum or average calculation which is also shown on the screen.



**The HP 04 to change instrument parameters at the IKS units:**

All instrument specific parameters of the *IKS* series and also for the fibre optics pyrometers *LSi* and *LGAi* (temperature subrange, emissivity, maximum value storage or response time) can be displayed and changed with this unit. An easy menu guides through the settings of the pyrometer.

Technical Data	HP 04
Display	LCD 2 x 12 chars
Menu languages	german, english, french, italien, spanish
Temperature display	°C/ °F adjustable
Battery	9VIEC 6F22/ IEC 6LR61 (500mAh)
Operating time	~ 18 h
Weight (incl. battery)	~ 220 g
Dimensions	89 x 72 x 37 mm
Order-No.	4 749 165

**Scope of delivery:**

**HP 04** incl. service cable, inspection sheet, user manual, supply in INFRAPOINT-Box  
The probe to detect the emissivity has to be ordered separately! (see *Tastotherm* probe range)

## LED-Display in desktop housing, power supply and two limit switches

LED-Display in desktop housing, power supply for 2-wire instruments, 2 limit switches and pilot light switch.

**Scope of delivery:**

**ID 61**, Power cord, inspection sheet, user manual

Technical Data	ID 61
Display	4-digits, 13 mm, red
Power supply	100 ... 240 V AC, 50 ... 60 Hz
Power supply, sensor	24 V DC, 22 mA
2 limit switches	3 A at 230 V AC; ohmic load
Dimensions	190 x 135 x 93 mm (L x W x D)



**ID 61**  
Order-No. 4 749 311

Fig.: *ID 61* with *IKS* - sensor