

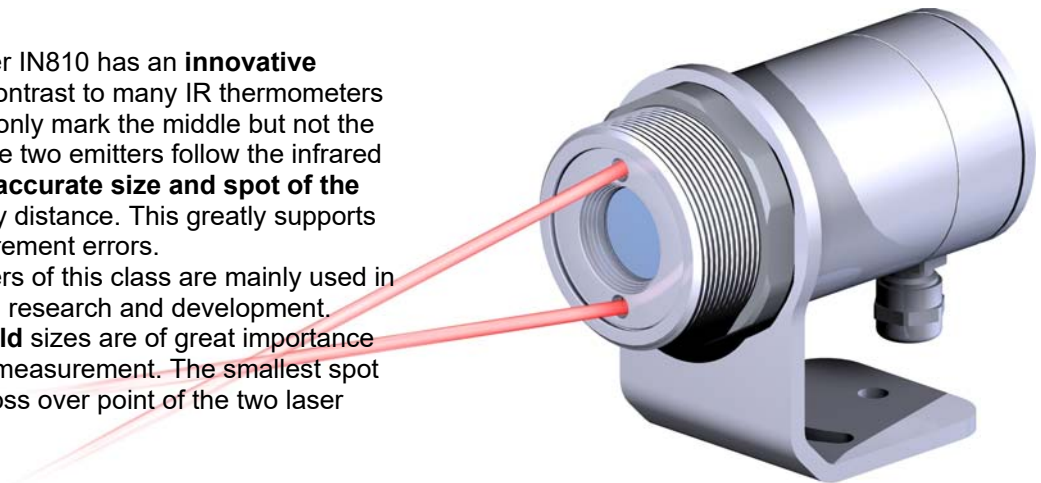
IN810

High performance infrared pyrometer with two-wire output

The infrared thermometer IN810 has an **innovative double laser sight**, in contrast to many IR thermometers with single lasers which only mark the middle but not the size for the spot size. The two emitters follow the infrared optical path to mark the **accurate size and spot of the measuring field** in every distance. This greatly supports the avoidance of measurement errors.

The infrared thermometers of this class are mainly used in industrial area as well as research and development.

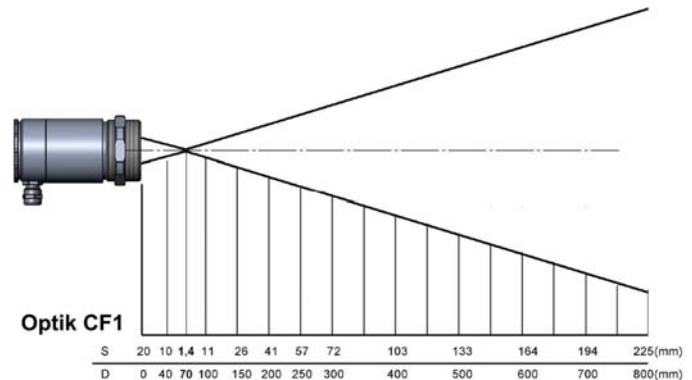
Small measurement field sizes are of great importance for precise temperature measurement. The smallest spot size is marked by the cross over point of the two laser sights



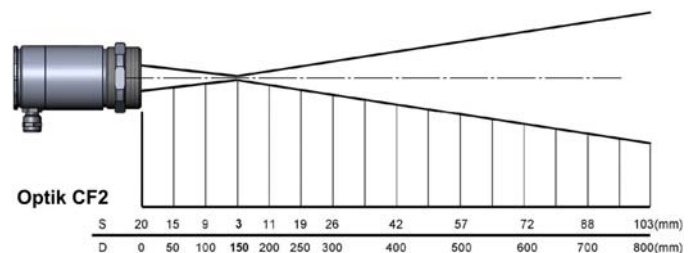
Technical data:

- temperature range: -30°C ... 1000°C (preset to 0 ... 300°C)
- Double laser aiming marks real spot location and spot size at any distance
- spectral range: 8 to 14 μm
- optical resolution: 50 : 1
- response time: 150 ms
- ambient temperature up to 85°C without cooling and automatic laser switch off at 50°C
- scalable 4 ... 20 mA analog output and additional simultaneous alarm output
- wide power range: 5 ... 28 V DC
- RS232 interface for configuration and simultaneous signal recording (Software and USB adapter as optional accessories)
- emissivity adjustable via sensor or software
- short circuit and polarity reversal protection

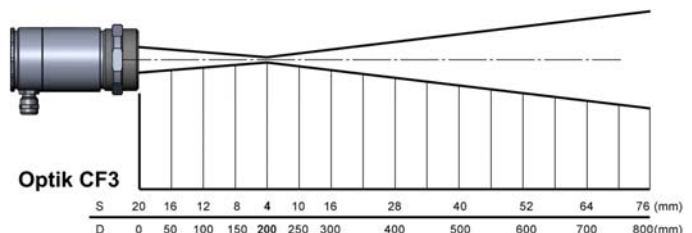
IN 810 with optics CF1
spot size Ø1,4mm at a distance of 70mm
Item-no.: 121811



IN 810 with optics CF2
spot size Ø3mm at a distance of 150mm
Item-no.: 121812



IN 810 with optics CF3
spot size Ø4mm at a distance of 200mm
Item-no.: 121810



S = spot size
D = distance

All prices excl. VAT
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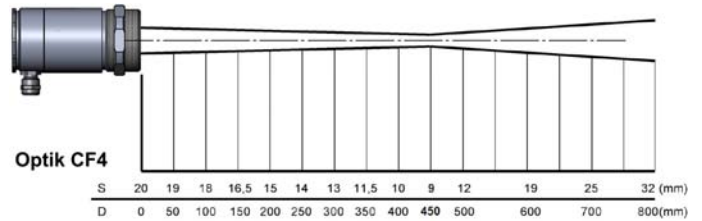
All pictures are approximations
Last update: 30.07.2021

IN810

High performance infrared pyrometer with two-wire output

IN 810 with optics CF4
spot size Ø9mm at a distance of 450mm

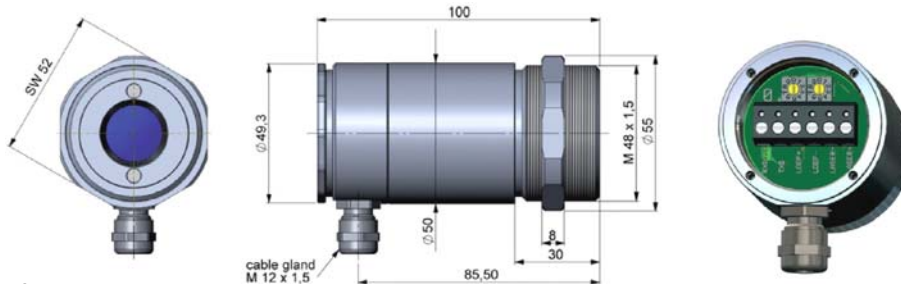
Item-no.: 121813



All devices inclusive fixed mounting bracket
(see picture at the top of the front page).

Temperature range:	-30 ... 1000°C (scalable via software, preset to 0 ... 300°C)
Spectral range:	8 ... 14µm
Optical resolution:	50 : 1
Power supply:	5 ... 28 V DC
Power consumption laser:	45mA bei 5V / 20mA bei 12V / 12mA bei 24V
Laser:	635 nm, 1mW
Analog output:	4 ... 20mA
Loop resistance :	Max. 1000Ω in Abhängigkeit von der Versorgungsspannung
Alarm output:	0 ... 30 V / 500 mA (open collector using RxD pin)
Interface:	RS232, 9.6 kBaud, 0/3V digital level, uni- / bidirectional, USB optional
emissivity:	0.100 - 1.100 (adjustable via switches inside the sensor or via software)
IR window correction:	0.100 - 1.000 (adjustable via software)
Signal processing:	Peak hold, valley hold, average, extended hold function with threshold and hysteresis
Response time (90% signal):	150 ms
Temperature resolution:	0.1° K
System accuracy: ($\epsilon=1$, $t_{90}=1s$; $T_U=23 \pm 5^\circ C$)	$\pm 1\%$ of measured value or $\pm 1^\circ C$ (Whichever is greater.)
Repeatability:	$\pm 0,5\%$ of measured value or $\pm 0,5^\circ C$ (Whichever is greater.)
Ambient temperature:	-20°C ... 85°C (50°C with laser on)
Storage temperature:	-40°C ... 85°C
Relative humidity:	10 ... 95%, non condensing
Protection class:	IP65 (NEMA-4)
Weight:	600g
Dimensions:	100 x Ø50 mm, external thread M48 x 1.5
Material:	Stainless steel
Vibration:	IEC 68-2-6: 3G, 11-200 Hz, any axis
Shock:	IEC 68-2-27: 50G, 11ms, any axis

Dimensions



Accessories

Connection cable 3m

Item-no.: 121822

Additional cable (ea. meter)

Item-no.: 121823

Adjustable mounting bracket, stainless steel

Item-no.: 121820

Air purge, stainless steel

Item-no.: 121824

USB adapterkit incl. software for configuration and simultaneous signal recording

(RS232 to USB converter incl. terminal)

Item-no.: 121830

All prices excl. VAT

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