

HE1200N

Portable Temperature Source



Extremely small and light temperature source

- Quick check of pyrometers 100 up to ca. 1130 ±70°C
- Use in infrared measurements on site without pyrometer removal
- Determination of optical losses in infrared measurements through windows or lenses and automatic compensation in conjunction with an M3 or H3 pyrometer
- Common applications: laser hardening, laser welding, additive manufacturing
- Target temperature reached in a maximum of 3 minutes
- Small and light for fast positioning
- With continuous temperature adjustment between approx. 100 and max. 1200°C or with control pyrometer for high temperature stability
- Measuring opening with adjustable aperture and support for light power measuring device (power meter)
- For Sensortherm pyrometers with fast single-point calibration to a target temperature

Ready in only 3 Minutes

The HE120020N is an unsurpassed fast and very small temperature source that can be used to check pyrometers in a few minutes, for example directly at the furnace. Also, optical losses in measurements through windows or lenses can be quickly determined, e.g. when coupling the pyrometer into a processing optics.

Technical Data

Temperature	Adjustable to approx. 100-1130 ±70°C	Pyrometer con-
Warm-up / cool-down	ca. 3 min / ca. 5 min	nections / SUB-D
Operating	no continuous operation, only in inicial	socket
	setup mode	Housing
Measuring area	ca. 10 mm / 0,4"	Weight
Front meas. opening	Adjustable aperture 0.9-12 mm	Ambient tempera-
Rear meas. opening	12 mm for fiber optics OL12	ture
Power supply	230-240 V AC, 800 W max.	Rel. humidity
Connection cable	2 m power supply cable,	CE label
	2 m connection cable to heating unit	

Pyrometer con-	Pyrometer / control pyrometer, each
nections / SUB-D	connected to the SUB-D socket for
socket	RS485 connection.
Housing	Aluminum, heating unit black anodized
Weight	4.3 kg (9.48 lb.)
Ambient tempera-	Heating unit: 0–70°C
ture	Control unit: 0–40°C
Rel. humidity	Non-condensing conditions
CE label	According to EU directives

Application

Comparison measurement

Heating unit with control pyrometer for quick comparison measurement on site at the plant.
 Advantage: it is not necessary to remove time-consuming mounted optical fibers and optics.

Optics Optics

Measurement with single-point adjustment

- Use METIS M3 or H3 pyrometer, connect to PC and start standard software SensorTools.
- Align the HE1200N to the pyrometer's measuring point and heat to application temperature (= adjustment temperature).
- Start the single-point adjustment function, enter the adjustment temperature and start the procedure.
 After a short time the pyrometer is adjusted to the
- After a short time the pyrometer is adjusted to the optical system.
- A light power measuring device (power meter) can be connected via a slot.

Optics

Optics

system

Reference Numbers

HE1200N HE1200N consisting of control and heating unit.

AL12-02 Pyrometer connection cable, 2.5 m, straight 12-pin plug to control unit, straight 12-pin socket for pyrometer. AL07-02 Pyrometer connection cable, 2.5 m, straight 12-pin plug to control unit, straight 17-pin socket for pyrometer.

DK4000 Interface converter RS485⇔USB.

M3 pyrometer If necessary: Fiber optic control pyrometer of your choice. It is recommended to use a control pyrometer with the

same spectral range as the pyrometer used.

UM8000-01 90° deflection mirror for optics connection when using a fiber optic control pyrometer.



Sensortherm reserves the right to make changes in scope of technical progress or further developments.

Sensortherm-Datasheet HE1200N PortableTemperatureSource (April 02, 2024)

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