

HD 2402



HD2402 INCOHERENT OPTICAL RADIATION MONITORING

The **HD2402** is a portable photo-radiometer data logger for the measurement of **non-coherent optical radiation in compliance with the European Directive 2006/25/EC and the legislative decree n. 81 of April 9th 2008.**

The instrument is equipped with a series of sensors to cover different spectral portions and a small laser suitable to indicate the analyzed source.

The various sensors work in the following spectral ranges:

- Photometric sensor for measuring illuminance (lux meter) in the spectral range 380...780 nm.
- Radiometric sensor for the UV band (220...400 nm) with spectral weighting factor $S(\lambda)$.
- Radiometric sensor for UVA band (315...400 nm).
- Radiometric sensor for the band 400...700 nm (blue) with spectral weighting factor $B(\lambda)$.
- Radiometric sensor for the IR band (700...1300 nm) with spectral weighting factor $R(\lambda)$.
- Thermopile sensor for the measurement of irradiance in the infrared spectral range 400...2800 nm.

The **HD2402** can be power supplied either by the connection to a PC, receiving power supply directly from the USB port of the PC, or by an external power supply with USB output (code **SWD05**). The connection cable **CP24H** is equipped with an M12 connector on the instrument side and a USB type connector for the PC side or to the power supply **SWD05** side.

By using the **software DeltaLog13 from the version 1.0.1.0** and a PC, the **HD2402** can be configured (calendar, date, time, starting time and duration of the logging) as well as performing the download and the analysis of the data stored and the acquisition of data in real time. Once configured, the data logger can be disconnected from the PC and connected to its external power supply for the acquisition and storage of data according to the programmed settings.

Instrument specifications

Instrument

Dimensions

(Length x Width x Height)

69x69x155 mm
74x74x155 mm with protective shell

Weight

500 g

Materials

Aluminium alloy

Protective shell

Rubber

Operating conditions

Working temperature

-5 ... 50°C

Storage temperature

-25 ... 65°C

Working relative humidity
Protection degree

0 ... 85% RH no condensation
IP 64

Power supply

Power adapter (cod. SWD05)

5Vdc/1A

Stored data security

unlimited

Serial interface:

output for connection to the PC by using the USB cable CP24H

Storage capacity:

96,000 recordings, corresponding to approximately 26 hours of continuous data acquisition.

Storage interval:

fixed at 1 second.

Measuring ranges

Measurement of the illuminance in the spectral range 380...780 nm

1.0 ... 399.9 lux
0.010·10³ ... 3.999·10³ lux
0.10·10³ ... 39.99·10³ lux
1.0·10³ ... 399.9·10³ lux

Measurement of the radiation in the spectral range 400...700 nm (blue) with spectral weighting factor $B(\lambda)$

1.0·10⁻³ ... 399.9·10⁻³ W/m²
0.010 ... 3.999 W/m²
0.10 ... 39.99 W/m²
1.0 ... 399.9 W/m²

Measurement of the UV radiation in the spectral range 220...400 nm with spectral weighting factor $S(\lambda)$

0.10·10⁻³ ... 39.99·10⁻³ W/m²
1.0·10⁻³ ... 399.9·10⁻³ W/m²
0.010 ... 3.999 W/m²
0.10 ... 39.99 W/m²

Measurement of infrared radiation in the spectral field 700...1300 nm, with spectral weighting factor $R(\lambda)$

0.010 ... 3.999 W/m²
0.10 ... 39.99 W/m²
1.0 ... 399.9 W/m²
0.010·10³ ... 3.999·10³ W/m²

Measurement of the ultraviolet radiation in the spectral UVA range (315...400 nm)

0.010 ... 3.999 W/m²
0.10 ... 39.99 W/m²
1.0 ... 399.9 W/m²
0.010·10³ ... 3.999·10³ W/m²

Measurement of infrared radiation, spectral range 400...2800 nm

0.010·10³ ... 3.999·10³ W/m²

ORDERING CODES

HD2402: Multi-sensor instrument, data logger, for measuring noncoherent optical radiation. Equipped with: **DeltaLog13 software (version 1.0.1.0)** downloadable from Delta OHM website, to download, monitor and process the data on a personal computer, hardware key **CH20-ROA** to enable the software, **CP24H connection** cable, **SWD05** external power supply, **VTRAP20** tripod, manual, carrying case.

Accessories:

CH20-ROA: Hardware key for PC with Windows® operating systems. Inserted into a USB port enables the use of PC software DeltaLog13 with the instrument HD2402.

CP24H: Connection cable to a PC or to the external power supply. M12 connector on the instrument side and USB type A- connector on the PC / Power Supply side.

SWD05: Stabilized external power supply 100...240Vac/5Vdc-1A. Output with USB connector type A.

VTRAP20: Tripod to fix the instrument, maximum height 270 mm.

