

# Photo-Radiometer

## 2006/25/EC Dosimeter

### HD2402

#### ○ FULLY COMPLIANT WITH THE REGULATIONS

Integral calculation of **allowable limit values** according to 2006/25/EC

#### ○ COVERING THE COMPLETE MEASUREMENT RANGE

Multiple sensors to cover different spectral bands  
**UV - NIR - UVA - LUX - BLUE - NIR/FIR**

#### ○ PORTABLE - EASY TO SET UP - COMPLETE

**Complete integral solution** to measure according to the European regulations.

**No additional cost** for software licences or yearly fee

#### ○ CONFIGURABLE TO YOUR NEEDS

Set up the device exactly **configured to your needs**, start it. Download all data and have all calculated outcomes directly available

### Protect your workers from the risks associated with optical radiation!

Industrial processes such as welding, glass factories, paint drying ovens, smelters; medical equipments such as laser, neonatal phototherapy lamps, sterilization, surgical lights, as well as lamps, display screen or scanners in work environments. All these are considered sources of artificial optical radiation also known as AOR. AOR have a wavelength between 100 nm and 1 mm and include the field of **visible optical radiation**, as well as **ultraviolet radiation** (UVA, UVB and UVC) and **infrared radiation** (IR).

According to the **European Regulations**, the exposure of workers to the risks arising from these light sources need to be strictly measured and controlled. **HD2402** is the instrument that allows the employer to assess and to measure and to calculate the levels of exposure to artificial optical radiation.

Easy to use, the **HD2402** is a portable photo-radiometer data logger equipped with a series of **sensors to cover different spectral portions** and a small laser suitable to indicate the analyzed source.

**Delta OHM**

Member of GHM GROUP



### Main Application

Workers Protection from Artificial Optical Radiation (AOR) sources

Industrial processes  
Medical UV applications  
Steel factories



## Technical Specification

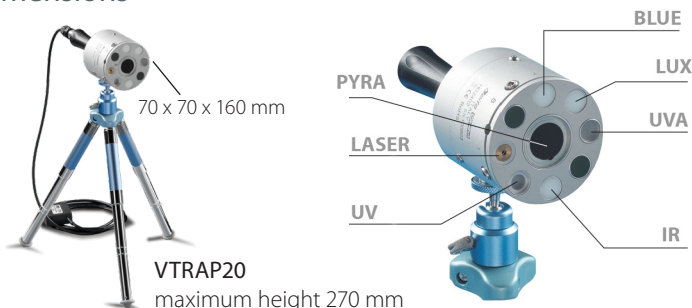
### Measurement ranges

<b>ILLUMINANCE</b> spectral range 380 ÷ 780 nm	0 ÷ 399.9 lux $0 \div 3.999 \cdot 10^3$ lux $0 \div 39.99 \cdot 10^3$ lux $0 \div 399.9 \cdot 10^3$ lux
<b>IRRADIANCE UV</b> spectral range 220 ÷ 400 nm with spectral weighting factor S (λ)	$0 \div 39.99 \cdot 10^{-3}$ W/m <sup>2</sup> $0 \div 399.9 \cdot 10^{-3}$ W/m <sup>2</sup> $0 \div 3.999$ W/m <sup>2</sup> $0 \div 39.99$ W/m <sup>2</sup>
<b>ULTRAVIOLET IRRADIANCE</b> spectral range UVA 315 ÷ 400 nm	$0 \div 3.999$ W/m <sup>2</sup> $0 \div 39.99$ W/m <sup>2</sup> $0 \div 399.9$ W/m <sup>2</sup> $0 \div 3.999 \cdot 10^3$ W/m <sup>2</sup>
<b>IRRADIANCE BLUE</b> spectral range 400 ÷ 700 nm with spectral weighting factor B (λ)	$0 \div 399.9 \cdot 10^{-3}$ W/m <sup>2</sup> $0 \div 3.999$ W/m <sup>2</sup> $0 \div 39.99$ W/m <sup>2</sup> $0 \div 399.9$ W/m <sup>2</sup>
<b>INFRARED IRRADIANCE</b> spectral range 700 ÷ 1300 nm with spectral weighting factor R (λ)	$0 \div 3.999$ W/m <sup>2</sup> $0 \div 39.99$ W/m <sup>2</sup> $0 \div 399.9$ W/m <sup>2</sup> $0 \div 3.999 \cdot 10^3$ W/m <sup>2</sup>
<b>INFRARED IRRADIANCE</b> spectral range 400 ÷ 2800 nm	$0 \div 3.999 \cdot 10^3$ W/m <sup>2</sup>

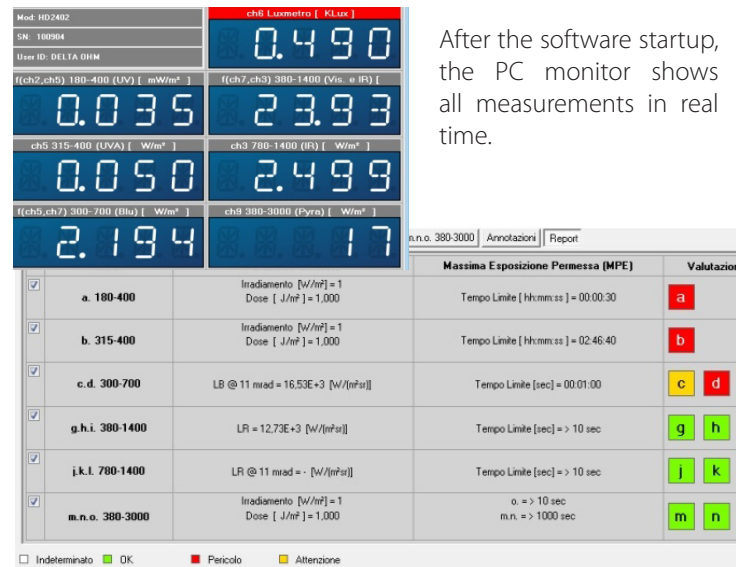
### General Specifications

Power supply	5 Vdc/1A (SWD05 power adapter)
Safety of stored data	unlimited
Serial interface	output for connection to PC USB input (CP24H)
Memory capacity	96000 stored data = about 26 hours of continuous acquisition
Storage interval	fixed at 1 second
Operating conditions	-5 °C ...+50 °C 0...85% RH non condensing
Weight	500 g
Materials	aluminium alloy rubber protection sleeve

### Dimensions



## DeltaLog13 software



After the software startup, the PC monitor shows all measurements in real time.

Through the **DeltaLog13** software downloadable from the Delta OHM website, you can **configure** your HD2402 (calendar, date, time, start time and logging time), **set** that the proper measurement ranges and **perform** your measurement campaign.

The exposure limit values for each risk index are available in a final report table.

Colored boxes in the 'assessment' column ease the reading of the risk index states: a safe situation is indicated by a **green box** while **yellow** and **red boxes** indicate dangerous or risky situations.

### Ordering Codes

#### HD2024

Multi-sensor instrument, datalogger for the measurement of noncoherent optical radiations. It includes: **CH20-ROA** hardware key for software enabling, **CP24H** connection cable, **SWD05** power supply unit, **VTRAP20** tripod, **DeltaLog13 software** downloadable from Delta OHM website, carrying case and compliance report.

#### Accessories

##### VCERT-L2402

Single calibration report for all the sensors. One point only for each sensor.

##### VACCREDIA-L9

ISO 17025 certificate for LUX and UVA measurements and single calibration report for the remaining sensors. LUX accredited range 50÷4000 lux; UVA accredited range 10÷45 W/m<sup>2</sup>.

