



## Specialist by Competence Delta OHM – time-tested & innovative

## Delta OHM



Delta OHM is located near Padua, close to Venice. Since its founding in 1978, Delta OHM, with its current staff of more than 60 employees, has established an excellent international reputation in its work on the development and production of electronic measuring devices. The product assortment of Delta OHM comprises a broad spectrum from simple transmitters or handheld measuring devices to independently operating measuring system solutions with remote data transmission. Delta OHM currently exports to over 70 countries.

The quality of the products is assured, among other things, by the in-house calibration laboratories accredited according to ISO 17025 (ilac-MRA ACCREDIA LAT N° 124).

The merger with the GHM Messtechnik Group in 2015 opened up new possibilities for Delta OHM. The company headquarters, sales, marketing and training center of the GHM GROUP is situated in Erolzheim in southern Germany. All members of the GHM GROUP (Greisinger, Honsberg, Martens, Imtron, Delta OHM and Val.Co) operate in their respective locations as centres of competence for product development, production and materials handling.

Delta Ohm products are still handled by international Delta Ohm distribution in Padua and product specialists within the GHM Group.



Temperature - Humidity - Pressure - Air speed Photometry/Radiometry - Acoustics

Delta OHM calibration laboratories are accredited according to ISO 17025 (ilac-MRA ACCREDIA Lat N° 124) for the measurement of the following physical :

- $\circ$  Temperature
- Humidity
  Pressure
- o Air speedo Photo-radiometryo Acoustics



## Markets

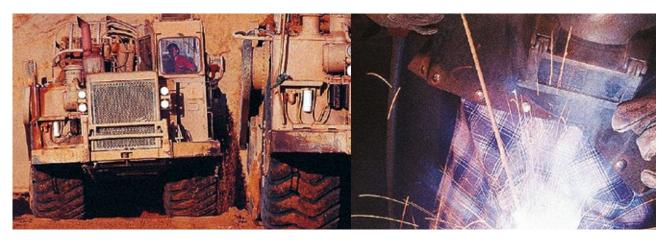


### Our focus markets in which Delta OHM products have been proven for years:

- Environment, labour protection occupational safety and industrial Sound&Vibration
- Alternative energies
  (photovoltaics, wind power)
- Meteorology, geology, hydrology, weather forecasting
- Agriculture,agro-meteorology, animal husbandry, fish breeding
- Ventilation and air conditioning, building automation
- Museums, shopping centers and public places

- Medicine, hospitals, chemical and pharmaceutical laboratories
- o Water analysis, laboratories
- $\circ$  Food
- Infrastructure (roads, railway, airports, harbours)
- o Industrial applications

# Environment, labour protection, occupational safety and industrial Sound & Vibration





e.g. data logger HD 2402 for incoherent optical radiation, sound level meter HD 2110L, photometer/radiometer HD2102.1 and HD2102.2

Comprehensive product range for detection and evaluation of environmental conditions in the workplace regarding temperature, noise, vibration, lighting and room air quality.

The measuring devices are oriented towards current standards – the technical regulations (labour protection) on the topic – "Incoherent optical radiation", in accordance in accordance with European Directive 2006/25/EC.

- Sound level measuring devices (class 1 and 2) according to IEC 61672-1, 2002; IEC 60651and IEC 60804 and acoustic calibrators according to IEC 60942
- Vibration measuring devices and calibrators (ISO 8041, ISO 2631, ISO 5349)
- Photometers and radiometers for detection of lighting strength, UVA, UVB, UVC, etc.
- o Incoherent optical radiation
- o WBGT, PMV, microclimate data logger
- Room air quality CO<sub>2</sub>, CO



## Alternative energies (photovoltaics, wind power)



We offer various measuring solutions specifically for detection and improvement of efficiency of solar and wind power systems:

- o Portable radiometer
- o Pyranometer (all classes)
- o Temperature sensors for solar panels
- o Pyrheliometer
- o Sensors for measurement of sunshine duration
- Sensors for measurement of wind speed and direction

Of course, we also offer the appropriate data logger components for all aforementioned variables.



e.g. 3-axis ultrasonic anemometer HD 2003/HD 2003.1, Pyrheliometer LP PYRHE 16, First Class Pyranometer LP PYRA 02

# Meteorology, geology, hydrology, weather forecasting and agro-meteorology





e.g. Weather Station HD32.35, Ultrasonic Anemometer HD52.3D, Rain Gauge HD 2013

Measurement solutions for exact and reliable detection of nearly all relevant parameters:

- o Portable radiometer
- o Pyranometer (all classes)
- o Albedometer
- o Pyrgeometer
- o Pyrheliometer
- o Rain detector and rain gauge
- o Data logger
- Weather stations
- o 2D/3D ultrasonic anemometer

#### Sensors for measurement of:

- o sunshine duration
- o barometric air pressure
- o temperature (also ventilated) and air humidity
- o leaf wetness
- o soil humidity and temperature
- o UVA/UVB radiation
- o UV index
- o photosynthetically activated radiation (PAR)
- radiation balance ("net radiometer")
- o precipitations



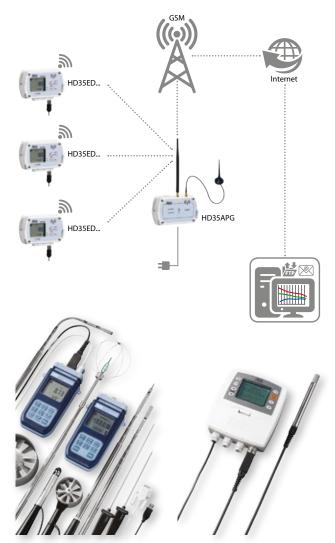
## Ventilation and air conditioning, building automation



A wide spectrum of applications is covered with our portable and industrial measuring technology for temperature, air speed, (impeller, heat wire, pitot dynamic pressure), air humidity, differential pressure, lighting and room air quality ( $CO_2/CO$ ). The applications range from measurement of individual parameters (e.g. differential pressure monitoring of an air filter) to complex wireless data logger systems with which a variety of parameters are automatically detected and documented.

#### Museums, shopping centers and public places

In addition to the aforementioned applications, we offer solutions for special environments, such as the monitoring of light conditions in museums.



e.g. HD 35 series - mobile wireless connection with Access Point HD 35 APG; Thermo-anemometer HD 2103.1, HD 2103.2; Temperature / Humidity data logger indicator / regulator transmitter HD 2817T

# Medicine, hospitals, chemical and pharmaceutical laboratories





In addition to the aforementioned general ventilation and air conditioning requirements, there are additional special requirements, such as the continuous monitoring of cooling or heating cabinets, measurement of inlet flow speed of fume cupboards or differential pressure monitoring of operation rooms and clean rooms.

Delta OHM offers suitable handheld measuring devices, data loggers and wireless data logger systems for these applications.

Software options that satisfy FDA requirements CFR21 part 11 are available for electronic measurement data recording.

We offer the right solution for radiometric applications (UVA, UVB, UVC, UVeff, etc.).



e.g. HD 208 series mini data logger, low-pressure transmitter HD404



## Water analysis, laboratories



For use in the laboratory or in industrial applications and for field use, for the measurement of:

- o pH value
- o Conductivity
- o Redox potential
- o Oxygen concentration
- $\circ$  Turbidity

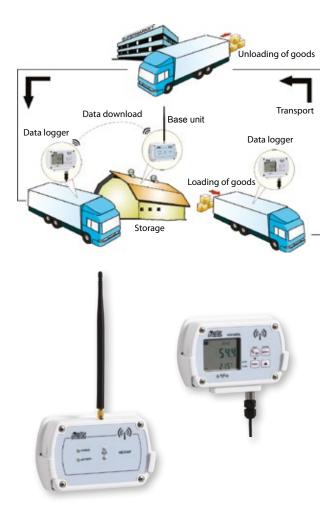
The handheld measuring devices also offer the possibility of simultaneously measuring and reliably storing pH value, conductivity and temperature.



e.g. pH meter HD 3405.2 bench top unit

## Food





Temperature and humidity monitoring is a central topic, e.g. for the production, packaging, transport and storage of foods (cold chain monitoring).

Delta OHM offers a broadly diversified assortment of temperature / humidity measuring technology, starting with the handheld measuring device with temperature sensor, to devices with data logger function and wireless data logger systems with automatic data acquisition.

Our UVC measuring devices are used for pasteurisation/sterilisation applications.

Monitoring of perishable (food, medication, etc.) or fragile goods during transport, e.g. with the wireless Data Logger HD 35.



## Infrastructure (roads, railway, airports, harbours)



Measuring equipment for continuous monitoring of wind speed (bridges, cranes, etc.) and lighting (road lighting, tunnel entrance haze luminance according to standard UNI11095:2005) and general weather parameters (see meteorology).

Our data loggers are frequently used for concrete hardening.

With integrated thermocouples, the temperature in the concrete is continuously monitored and recorded, wherein optimal properties of the end product can be assured.



e.g. Temperature Data Logger for up to 16 measuring points HD32.8/16

## Industrial applications





In addition to the measuring devices and applications shown on the previous pages, we offer additional measurement solutions for special industrial applications.

These includes, for example, sensors for measurement of dewpoint/humidity in compressed air systems or a wide assortment of manometers, barometers and pressure transmitters for numerous tasks.



e.g. RH compressed air probe HP480 - T480.1 - S.TC2.480.2 and relative pressure transmitter HD3604T



## **Physical variables**



Delta OHM offers handheld and industrial measuring devices for measurement of:

- Temperature
- Humidity (rel. humidity / dewpoint)
- Pressure
- Air speed
- Photometric and radiometric variables (such as Lux, UVA, UVB, UVC, UVeff, PAR, PHOT, BLUE, etc.)
- Sound level
- Vibration
- Gas concentration (CO<sub>2</sub>, CO)
- Water Anlaysis

and for a number of derived characteristics and indices.

Delta OHM also offers calibration laboratories that are accredited according to ISO 17025 (ilac-MRA ACCREDIA Lat N° 124) for the measurement of the following physical quantities:

- Temperature
- Air speed
- Humidity
- Photometry/radiometry
- Pressure
- Acoustics

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## **Calibration laboratories**

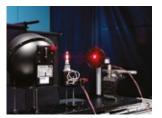




ACCREDIA LAT N° 124 Acoustic measurement laboratory



ACCREDIA LAT N° 124 Humidity measurement laboratory



ACCREDIA LAT N° 124 Photometry and radiometry measurement laboratory



ACCREDIA LAT N° 124 Temperature measurement laboratory



ACCREDIA LAT N° 124 Pressure measurement laboratory



ACCREDIA LAT N° 124 Air speed laboratory

The Calibration Center of Delta OHM is based on six modern laboratories equipped with a state of the art equipment and part of the international circuit ILAC-MRA. The high quality standard is certified by the ISO 17025 accreditation.

- o Temperature
- o Humidity
- o Pressure
- o Air speed
- Photo-radiometry
- o Acoustic

The Calibration Center offers:

- o ILAC ACCREDIA Certificates
- o Calibration Reports ISO 9001 recognized
- internal support to R&D for testing new high quality products and speeding up development
- factory calibration for high quality Delta OHM products



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...and more than 100 qualified distributors!

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