

## Portable Data Recorder HMG 510

### Description:

The HMG 510 is a hand-held instrument for simple measurement tasks on hydraulic and pneumatic systems in mobile and industrial applications.

Compact and simple to use, the HMG 510 is an ideal tool for all those involved in maintenance, commissioning and service.

Up to two sensors with **HYDAC Sensor Interface (HSI)** can be connected to the HMG 510.

Sensors are available to measure pressure, temperature and flow rate as well as sensors for condition monitoring (also known as SMART sensors).

Some examples of SMART sensors are the HYDACLab® Oil Condition Sensor, the AS 1000 AquaSensor and the CS 1000 Contamination Sensor. The HMG 510 automatically recognises these sensors and takes all the necessary basic settings from each sensor.

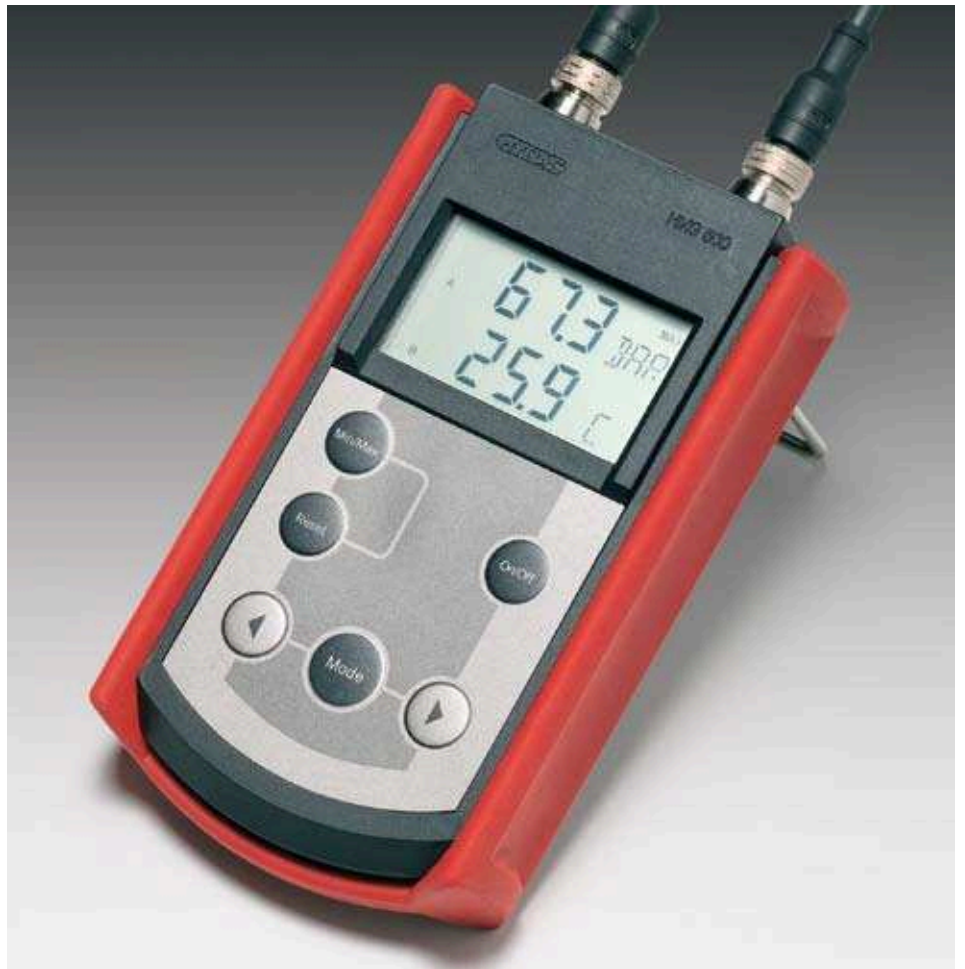
The measurement values and the corresponding physical unit are displayed on an easy-to-read LCD display.

In addition to this, the HMG 510 enables measured values which have been saved in the SMART sensors to be uploaded to a PC.

With the aid of the HYDAC PC software "CMWIN", the measurement data stored in the SMART sensors can be displayed on a PC screen in the form of a graph then analysed, edited and saved.

The HMG 510 has a standard built-in USB port to enable this data transfer.

To further extend the applications range, the HMG 510 has a function for setting mechanical pressure and temperature switches precisely and reliably.



### Special features:

- Portable 2-channel data recorder
- Simple and user-friendly key operation
- Large LCD display including battery status indication
- 2 sensor inputs, automatic sensor recognition
- Specially designed to display measured values from condition monitoring sensors (SMART sensors)
- Measuring range and unit of measurement of the sensors connected to it are recognised automatically
- Zeroing (taring) of the individual measurement channels
- Display of the actual measured values
- Display of the differential (channel A minus channel B)
- Min. or max. value indication, with reset function
- Setting device for mechanical pressure and temperature switches
- USB port

## Technical specifications:

<b>Measurement inputs</b>	2 analogue inputs for HYDAC measurement transmitters with HSI interface and SMART sensors
<b>Accuracy</b>	$\leq \pm 0.1$ % FS max.*
<b>Functions</b>	<ul style="list-style-type: none"><li>● Automatic recognition of measuring range and unit of measurement</li><li>● Taring of measuring channels</li><li>● Display of the actual measured value</li><li>● Min./Max. indication</li><li>● Reset of the min./max. values</li><li>● Measured values differential channel A - channel B</li><li>● Display of units, selectable</li><li>● Setting device for mechanical pressure and temperature switches</li><li>● Communication bridge to a connected PC</li></ul>
<b>Display</b>	4-digit 7 segment LCD display with battery status indication; 2 measured values incl. unit displayed simultaneously
<b>Measurement unit</b> (depending on the sensors connected)	<ul style="list-style-type: none"><li>● Selectable for:<ul style="list-style-type: none"><li>Pressure: bar, psi, MPa</li><li>Temperature: °C, K, °F</li><li>Flow rate: l/min, gallon/min (1 US gallon = 3.7853 l)</li></ul></li><li>● Permanently pre-set on SMART sensors</li></ul>
<b>Sampling rate</b>	0.1 ms
<b>Resolution</b>	12 bit
<b>CE mark</b>	EN 61000-6-1 / 2 / 3 / 4
<b>Safety</b>	EN 61010
<b>Protection class</b>	IP 54
<b>Voltage supply</b>	<ul style="list-style-type: none"><li>● 9 V battery</li><li>Operating time: approx. 10 h (with 2 sensors) **</li><li>● Euro plug mains power lead 230 V AC (available as an accessory)</li></ul>
<b>Ambient conditions</b>	<ul style="list-style-type: none"><li>● Working temperature: +5 .. +60 °C</li><li>● Storage temperature: -40 .. +70 °C</li><li>● Rel. humidity: 0 .. 70 %</li></ul>
<b>Weight</b>	410 g

\* FS (Full Scale) = relative to the full measuring range

\*\* Not applicable to SMART sensors, as they require an external voltage.

## Dimensions:



## Ordering Details:

HMG 510 - 000

### Items supplied

- Case for HMG 500 / 510
- HMG 510
- Operating manual D/E/F
- 9 V battery
- USB cable
- Y adapter blue (for HLB 1000)
- Y adapter yellow (for CS 1000)
- ZBE 30-02, sensor cable M12x1, 2m
- Software CD with "CMWIN"

### Accessories:

Appropriate accessories, such as electrical and mechanical connection adapters, power supply, etc. can be found in the Accessories section.

Examples of main accessories:

- **Pressure transmitter**  
HDA 4000 with HSI interface  
Pressure ranges: -1 .. 9 bar, 0 .. 16 bar, 0 .. 60 bar, 0 .. 100 bar, 0 .. 250 bar, 0 .. 400 bar, 0 .. 600 bar
- **Temperature transmitter**  
ETS 4000 with HSI interface  
Measurement range: -25 .. 100 °C
- **Flow rate transmitter**  
EVS 3000 with HSI interface  
Measurement ranges: 1.2 .. 20 l/min, 6 .. 60 l/min, 15 .. 300 l/min, 40 .. 600 l/min
- **Sensor simulator**  
SSH 1000, ideal for training purposes
- **Electrical connection adapter**  
UVM 3000, for mechanical pressure or temperature switches
- **Hydraulic adapters**

### Note:

The information in this brochure relates to the operating conditions and applications described. For applications or operating conditions not described, please contact the relevant technical department. Subject to technical modifications.

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