

## Portable Measuring Instrument HMG 510

Two-line LCD display  
Two sensors can be connected  
(incl. HYDAC SMART sensors)  
Automatic sensor recognition

### Description:

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

Thanks to its compactness and ease of handling, the HMG 510 is an ideal companion for employees in maintenance, commissioning and service.

Up to two sensors with HYDAC Sensor Interface (HSI) can be connected. 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 of 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 measured data stored in the SMART sensors can be displayed on a PC screen in the form of a graph, then analysed, edited, processed and saved. The HMG has a standard integrated USB port to enable this data transfer.

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



### Special features:

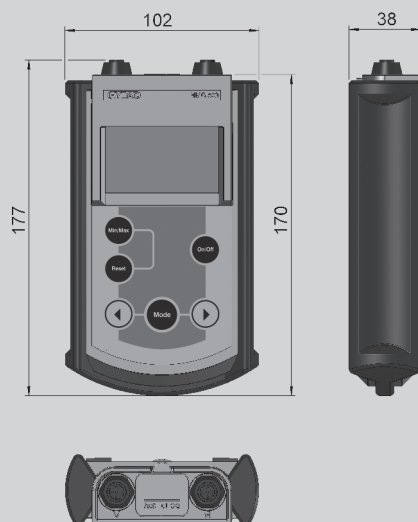
- Hand-held 2-channel portable measuring instrument
- Simple and user-friendly key operation
- Large LCD display including battery status indication
- 2 sensor inputs, automatic sensor recognition
- Specially designed to display measured values from Condition Monitoring sensors (SMART sensors).
- USB port

## Technical data:

<b>Measurement inputs</b>	2 analogue inputs for HYDAC measurement transmitters with HSI interface and SMART sensors
<b>Accuracy<sup>1)</sup></b>	≤ ± 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 the measuring channels</li> <li>● Display of the current measured value</li> <li>● Min/max value display</li> <li>● Reset of min/max values</li> <li>● Measured values differential channel A-B</li> <li>● Unit display, 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> (dependent on connected sensors)	Selectable for: Pressure: bar, psi, MPa Temperature: °C, K, °F Flow rate: l/min, gallon/min (1 US gallon = 3.7853 l) Fixed for SMART sensors
<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>Supply voltage</b>	9 V battery, operating life: approx. 10 h (with 2 sensors) <sup>2)</sup> Power supply unit 230 V AC (available as accessory)
<b>Environmental conditions</b>	Operating temperature: +5 .. +60 °C Storage temperature: -40 .. +70 °C Rel. humidity: 0 .. 70 %
<b>Weight</b>	410 g

Note: <sup>1)</sup> FS (Full Scale) = relative to complete measuring range  
<sup>2)</sup> Not applicable to SMART sensors, as they require an power supply.

## Dimensions:



## Ordering Details:

### HMG 510 - 000

#### Scope of delivery

- Case for HMG 500/510
- HMG 510
- Operating manual D/E/F
- 9 V battery
- USB cable
- Y-adapter blue (for HLB 1400)
- Y-adapter yellow (for CS 1000)
- ZBE 30-02, sensor cable M12x1, 2 m
- Software CD with "CMWIN"

#### Accessories:

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

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, 0 .. 1000 bar
- **Temperature transmitter**  
ETS 4000 with HSI interface  
Measuring range: -25 .. 100 °C
- **Flow rate transmitter**  
EVS 3000 with HSI interface  
Measuring 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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