

# HPM5000

## Hydraulic data logger

The HPM5000 is mid-range portable hydraulic data logger for use on mobile and industrial machinery. It is ideal for fault-finding, preventative maintenance, pre-dispatch inspection, Research and Development testing, and mounting on hydraulic test benches. It is capable of measuring up to 14 channels from 6 WEBTEC CAN sensors (12 channels) and 2 aux. analogue sensors PLUS 2 calculated channels. It is simple to use and ideal for technicians of all experience levels.

The 4.3-inch colour touch display is suitable for use with gloves and has large tactile buttons to the right of the screen to ensure operation even in adverse conditions. The screen can be configured to display the readings in numerical and graphical display mode.

Analysis of measurements, all data can be exported to a PC running Webtec's free-to-download software HPMComm 7.6 for further analysis or storage off the unit.

Connecting to a PC via USB allows the unit to live stream to a PC or laptop and allow for the connection of additional storage.

### Specifications

<b>Ambient Temperature Range:</b>	-20 to 50 °C, -4 to 122 °F
<b>Ports:</b>	USB-C (fast charging and data transmission between device and PC, cable supplied), USB-A host (data storage via USB memory stick supplied)
<b>Battery:</b>	Lithium-Ion pack, 7.2 V / 3500 mAh / 25.44 Wh
<b>Degree of Protection:</b>	IP65 (EN 60529:1989 + A1:1999 + A2:2013)
<b>Material:</b>	ABS/PC (thermoplastic)
<b>Body Material:</b>	ABS/PC (thermoplastic elastomer)
<b>Body Protective Material:</b>	Folding Stand and VESA standard 75 x 75 mm / M4 metric
<b>Mounting:</b>	0.85 kg, 1.87 lb
<b>Weight:</b>	



### Features

- Complete range of sensors - pressure, flow, temperature, RPM, contamination.
- Webtec CAN sensors for plug and play functionality.
- AUX connection to connect external analogue sensors.
- Data analysis with HPMComm 7.6 – Fast data transfer and charging via USB C.
- Calculated Channels: Subtraction, addition, multiplication, power, power differential and volume
- Illuminated and anti-glare 4.3-inch touch screen colour display.
- IP65 and rubberized case surround for protection in harsh environments.
- Foldable stand and VESA-standard points on the back for wall mounting on fix installations (e.g. Test Benches)



## Sales Order Code

Please contact our technical sales team to discuss any special order requirements.

MODEL NUMBER	INPUTS (NUMBER AND TYPE OF SENSORS)
HPM5140-CAN-A	6 Intelligent Digital (CAN) sensors, 2 Aux. Analogue sensors – up to 14 channels PLUS 2 calculated channels, data logger only (no sensors or cables)
HPM5140-CAN-A-KIT	6 Intelligent Digital (CAN) sensors, 2 Aux. Analogue sensors – up to 14 channels PLUS 2 calculated channels, see Kit Contents below
HPM5140-CAN-A-KIT-MAX	6 Intelligent Digital (CAN) sensors, 2 Aux. Analogue sensors – up to 14 channels PLUS 2 calculated channels, see Kit Contents below

### Notes

Some sensors, such as the PTT pressure transducers that include a temperature sensor built-in, are one sensor that uses two channels.

## Additional Specification/Functional Specification

CAN Sensor Input:	1 CAN bus network, 6 CAN Sensors with maximum of 12 channels
Connector Type:	M12 x 1, 5pin built in plug (male)
Sampling Rate:	Up to 4 sensors 1 ms, 5 or 6 sensors 2 ms
Input for External Sensors:	1 connection with 2 inputs (analogue) for measuring current and voltage
Connector Type:	M12 x 1, 5pin socket
Sampling Rate:	1 ms = 1,000 measured values/sec. FAST-MODE 0.1 ms = 10,000 measured values/sec
Voltage Measuring Range:	-10 to 10 V d.c
Current Measuring Range:	0/4 to 20 mA
Supply for external sensors:	+24...+24 V d.c/max. 100 mA (for both inputs)
USB memory stick:	4 GB supplied
Power supply:	In accordance with IEC 62680-1-3, USB PD 3.0, 5 V, 12 V, 20 V, Current
Connector Type:	For fast charging a USB-C compatible charger with min. 45 W is required, alternatively via USB-A/C cable (included in delivery) 5 V max. 2 A

## Definitions

Sensor:	A physical device (e.g. Pressure Transducer, Turbine Flow Meter, etc.).
Channels:	Number of variables that a sensor is capable to measure (e.g. Webtec Turbine Flow Meters with CAN output measure flow and temperature therefore two channels are used).

## HPM5000 Dimension

W x D x H: 215 x 60 x 154 mm, 8.46 x 2.36 x 6.06 Inches

## Kits Contents

### HPM5140-CAN-A-KIT

MODEL NUMBER	DESCRIPTION	QTY
HPM-5000-CASE	Case with foam inserts	1
HPM5140-CAN-A	HPM5140 data logger	1
SR-CBL-02-MF-CAN	Cable 2 m	1
SR-CBL-0.05-Y-CAN	Connector 'Y'	1
SR-CBL-000-R-CAN	Terminating resistor	1
SR-PTN-600-05-0C-CAN	Pressure transducer 0 to 600 bar	1



### HPM5140-CAN-A-KIT-MAX

MODEL NUMBER	DESCRIPTION	QTY
HPM-5000-CASE	Case with foam inserts	1
HPM5140-CAN-A	HPM5140 data logger	1
SR-CBL-02-MF-CAN	Cable 2 m	1
SR-CBL-05-MF-CAN	Cable 5 m	2
SR-CBL-0.05-Y-CAN	Connector 'Y'	2
SR-CBL-000-R-CAN	Terminating resistor	1
SR-PTN-060-05-0C-CAN	Pressure transducer 0 to 60 bar	1
SR-PTN-600-05-0C-CAN	Pressure transducer 0 to 600 bar	2



## PC Software HPMComm7.6

- Compatible with Windows 10 & Windows 11 (32- and 64-bit)
- Zoom functions
- Compare by superimposing measurement curves on top of each other
- Cursor functions
- Export function
- Extensive filter function
- Remote connection/remote control of the HPM5000
- Freely definable calculation channels
- Online measurement
- Easy operation

Recorded measurements can be effectively represented using diagrams. Manipulating the curves in these diagrams allows for accurate hydraulic analysis. Performance curves can be generated to evaluate pump functions, with pressure losses and leaks detected by analysing the differences in pressure curves.

Using the cursor, hydraulic procedures can be examined over time, providing comprehensive information for each curve. Adjustments to scale factor and units can be reflected in the diagrams, and the smoothing of measurement curves alongside mathematical operations are crucial for detailed hydraulic system analysis.

Each measurement includes documented date, time, and notes, facilitating easy allocation and reference. Consequently, documentation and certificates can be quickly and cost-effectively generated using the HPMComm software, which leverage's all features and benefits of Windows. These measurements can be exported in CSV format.

Current findings, such as pressure peaks, are viewable in real-time (Online Measurement function). For preventive maintenance, test results from different times can be imported, overlaid, and compared to identify performance deterioration.

Creating certificates is streamlined with tools that allow for the creation and saving of templates (e.g., company name, logo, and address in the header or footer), which can be reused across multiple measurements or test results.