



WLB-DDPG Watchlog Bluetooth digital datalogging pressure gauge & app manual

INTRODUCTION

The WLB-DDPG digital datalogging pressure gauge is an advanced device with a built-in high-precision pressure sensor. Pressure readings are displayed in real-time along with a selected secondary reading: temperature, full-scale pressure, minimum pressure, or maximum pressure.

The datalogging feature allows data to be stored over time and saved to storage housed within the gauge. This data can be transferred from the device in CSV format using the included USB cable. The gauge appears as an external drive on your Windows or Mac computer as if it were a simple external storage device, making the process as simple as copying files from one drive to another.

The gauge is powered by three AAA batteries or the supplied USB-C to USB-A cable (5V, 0.15A). It uses Bluetooth® technology, allowing up to four gauges to connect to the Watchlog Bluetooth app for iOS or Android for reading and datalogging at a transmission rate of up to 100ms. The large backlit LCD screen is easy to read and can be rotated up to 330° for the best angle of operation.



PRECAUTIONS

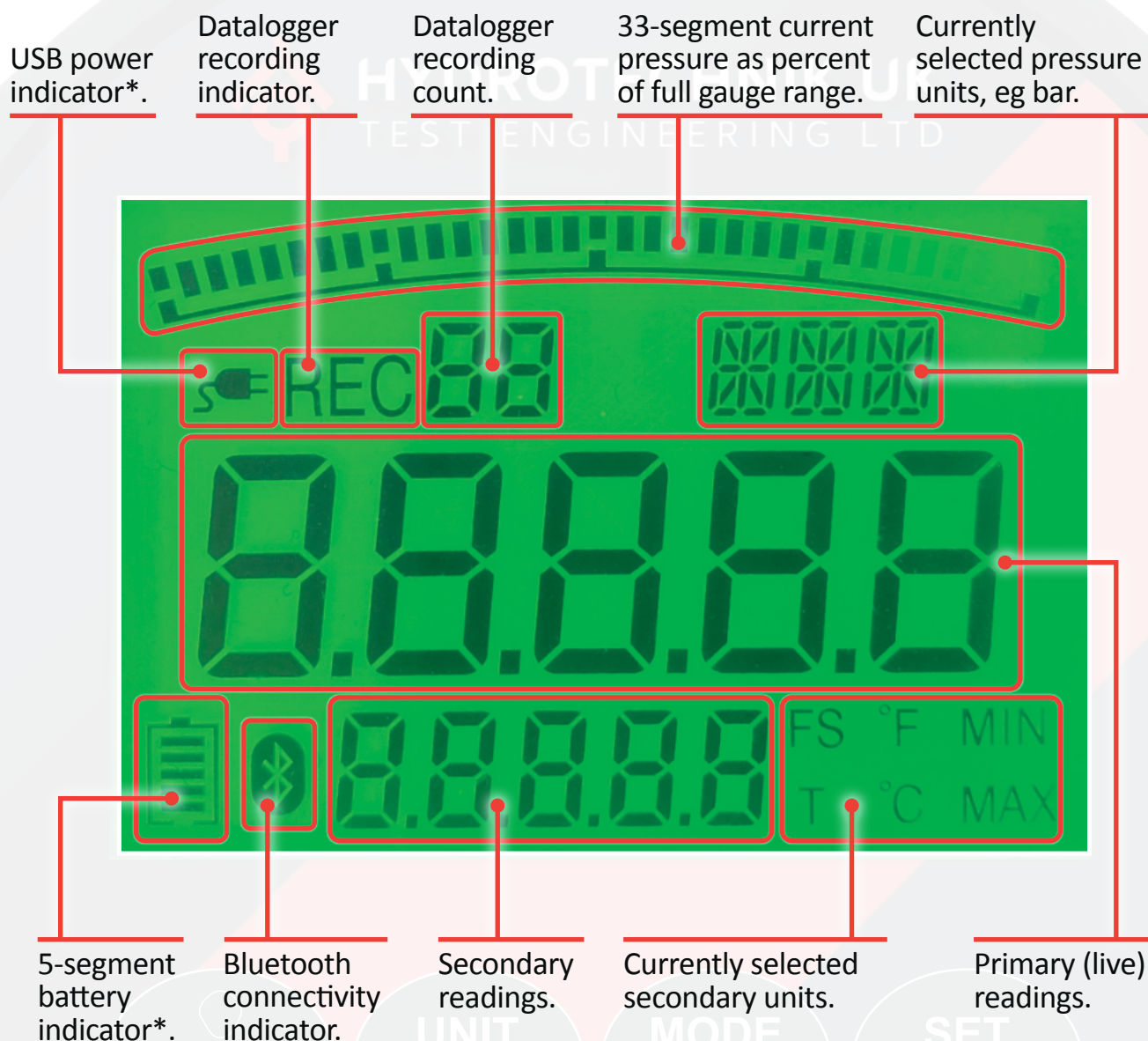
- Operating temperature: -20...+65°C.
- After powering on the gauge a zero reset may be required.
- Do not touch the measuring diaphragm or disassemble the product.
- Take care not to over-tighten the gauge.
- Do not install when the device is powered on.
- Use a correctly sized wrench/spanner to tighten the sensor to the connection port.
- Only rotate the dial after installation, and do not rotate beyond the maximum limit.

For technical information please download the WLB-DDPG datasheet by scanning the QR code to the right or visiting:

HYDROTECHNIK.CO.UK/DDPG



LCD DISPLAY



*The onboard power management will use USB power where possible, meaning USB power may be used without removing the 3x AAA batteries.

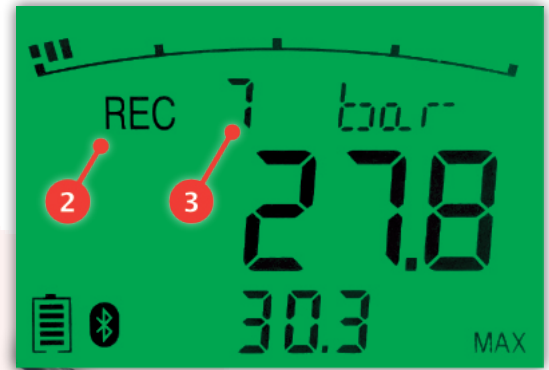
GAUGE USE

Button	Short press	Press and hold (for 3 seconds)
	Backlight on (when gauge is powered on). Power on (when gauge is powered off).	Power off (when gauge is powered on).
	Toggle between pressure units. <i>PSI, mH2O, inHg, Mpa, ATM, kgf, or bar.</i>	Enter settings menu (see settings page).
	Change displayed secondary readings. <i>Full Scale (FS), Temp (T) °C, Temp (T) °F, Pressure (MIN) or Pressure (MAX).</i>	Set the tare point to be considered zero system pressure and zero the min/max values.
	Confirm selected settings (when in settings menu).	Start or stop datalogging.

DATALOGGING WITH THE DDPG

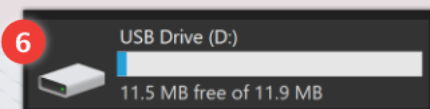
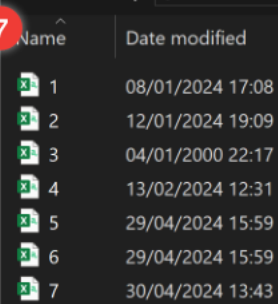
- 1 Press and hold (for 3 seconds) the  button (1) to begin logging data. Another long-press ends datalogging.
- 2 'REC' (2) will be displayed on screen showing that the gauge is now logging measured data.
- 3 The gauge shows a number (3) representing how many recordings are now stored on the device. For example (3) shows that the current recording is the 7th to be saved to the gauge's built-in storage.

The WLB-DDPG automatically assigns a scanning rate from 100ms up to 6.4s depending on the duration of the log (max 48h, 27000 records), please refer to the product datasheet for further detail.



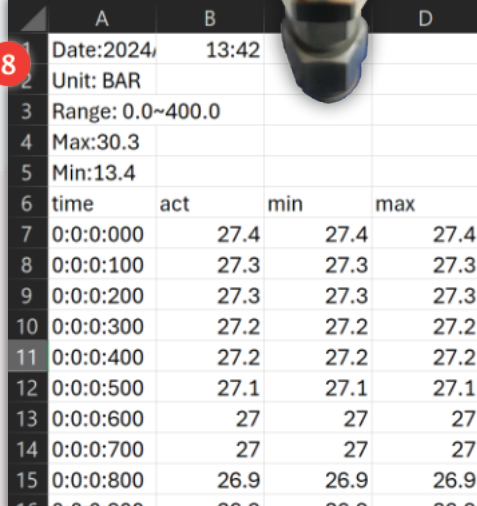
DOWNLOADING & OPENING TEST DATA

- 4 Using the supplied USB-C cable, connect the gauge to a Windows or Mac PC via the USB-C port on top of the device (4).
- 5 When connected to a PC the gauge will display 'PC USB' (5) until disconnected.
- 6 Once connected the gauge will appear as an external drive in Windows Explorer (6) or Mac finder.
- 7 Opening the drive will show all logged data as a series of CSV files (7). These can be dragged or copied and pasted to your desktop or another folder on your PC in the same way you would use a standard USB drive.
- 8 The CSV files can be opened in spreadsheet applications such as Microsoft Excel (8) or for quick and easy, drag-and-drop analysis using Watchlog CSV Visualizer (see below).

A screenshot of a Windows File Explorer window showing a list of CSV files with columns 'Name' and 'Date modified'.

Name	Date modified
1	08/01/2024 17:08
2	12/01/2024 19:09
3	04/01/2000 22:17
4	13/02/2024 12:31
5	29/04/2024 15:59
6	29/04/2024 15:59
7	30/04/2024 13:43



An Excel spreadsheet showing pressure data over time. The table has columns for Date, Unit, Range, Max, Min, time, act, min, and max.

	A	B	D
1	Date:2024/	13:42	
2	Unit: BAR		
3	Range: 0.0~400.0		
4	Max:30.3		
5	Min:13.4		
6	time	act	min max
7	0:0:0:000	27.4	27.4 27.4
8	0:0:0:100	27.3	27.3 27.3
9	0:0:0:200	27.3	27.3 27.3
10	0:0:0:300	27.2	27.2 27.2
11	0:0:0:400	27.2	27.2 27.2
12	0:0:0:500	27.1	27.1 27.1
13	0:0:0:600	27	27 27
14	0:0:0:700	27	27 27
15	0:0:0:800	26.9	26.9 26.9
16	0:0:0:900	26.9	26.9 26.9

WATCHLOG CSV VISUALIZER

The CSV files generated by the digital datalogging gauge are fully compatible with our Watchlog CSV drag-and-drop CSV graphing, analyser, and annotation software for Windows.

Learn more and download your free 7-day trial now by visiting:

HYDROTECHNIK.CO.UK/CSV



SETTING THE DATE AND TIME

- Press and hold (for 2 seconds) both the  (2) and  (3) buttons to enter the time and date settings. Release the buttons when **YEA-** is displayed on the screen.

- In this mode use each button as follows:

-  (1) Cycle through each setting
-  (2) Decrease the current value
-  (3) Increase the current value
-  (4) Save and return to the main screen

- The settings available appear in the following order.

Cycle through each setting using  (1):

- YEA-** (Year)
- nnTH** (Month)
- dAY** (Day)
- HOUr** (Hour, using the 24-hour clock)
- Nit** (Minutes)
- SEC** (seconds)

- After selecting the correct value for each setting press  (4) to save and return to the main screen.



CHANGING CONFIGURATION SETTINGS

- Press and hold (for 3 seconds) the  (2) button to enter the gauge configuration settings. Release the button when **PO** is displayed on the screen.

- In this mode use each button as follows:

-  (2) Cycle through each setting
-  (3) Increase/toggle the current value
-  (4) Save and return to the main screen

- Note that you cannot decrease the current value. Instead,  (3) will continue to loop through all options from low to high. Keep pressing the button until you reach the desired value.

- The settings available appear in the following order. Cycle through each setting using  (2) :

Code	Setting	Range/options	Default value
PO	Automatic power off	On/Off	Off
BLE	Bluetooth on/off	On/Off	On
RATE	Acquisition rate	0.1...0.9, 1...10 seconds	0.3 seconds
FLTR	Filter coefficient	x1...x7	x5
EOOO	Full scale compensation	0.5, 1.01...1.50	1.00
rES	Reset	Press  (4) to reset all settings	
DEL	Clear all data stored	Press  (4) to clear all stored test data	

- After selecting the correct value for each setting press  (4) to save and return to the main screen.

WATCHLOG BLUETOOTH LIVE VIEW & DATALOGGING APP

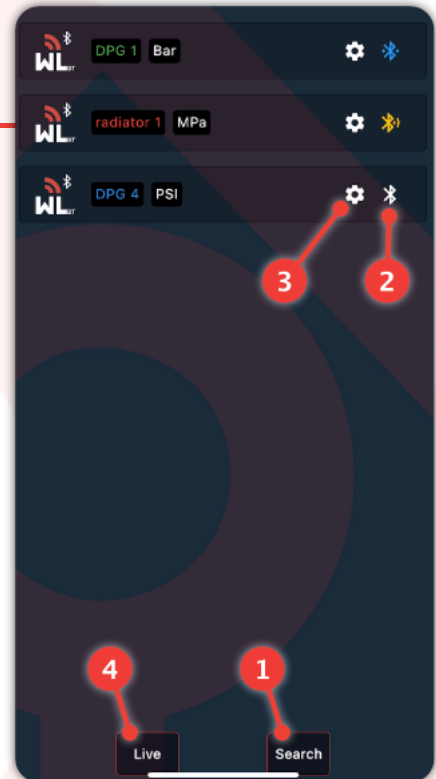
The Watchlog Bluetooth app allows you to numerically and graphically view data from up to four Watchlog Bluetooth sensors at one time as well as log the data over time then share directly from your mobile device.



To download the Watchlog Bluetooth app or watch a video overview of app use scan the QR code to the right with your mobile device or visit hydrotechnik.co.uk/ddpg.

Connecting your devices

- 1 When opening the app for the first time no devices will be present. Press the 'Search' button (1) to scan for any local devices which are powered on.
- 2 To connect to a device, tap the white Bluetooth icon (2) for the relevant device. The icon will turn yellow when a connection is being attempted, then blue once the connection has been established.
The first time a device is connected you will be prompted to enter a name, displayed units and device colour. The chosen colour will be used for this device on the live page graphs. You may connect to up to 4 devices at one time.
- 3 Press the gear cog icon (3) to edit the name, display units and/or colour of a previously connected device.
- 4 When at least one connection has been established press the 'Live' button (4) to move to view numerical and graphical sensor data for all connected sensors.



Viewing live data

- 5 Each connected sensor is represented by a tile (5) containing the sensor name, live pressure, and min/max values.
- 6 Below the tiles, sensor data for all sensors is displayed graphically using the selected colour for each sensor (6).
- 7 Tapping the graph at any point will display the values for all sensors at that point in the time axis (7).
- 8 The graph can be scrolled left and right once at least 60 seconds of data have been displayed. Press the 'Live' button (8) at any time to return to the most recent live point in the graph.
- 9 Pressing the 'Record' button (9) will begin to record all live data from that point. Tap the button again to stop recording. Share options will then be shown allowing the data to be shared with another device or computer.
- 10 You can return to the Devices page to make changes to change your connection and/or device settings by pressing the 'Devices' button (10).

