HYDROTECHNIK UK
TEST ENGINEERING LTD

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




## OPERATING MANUAL (ENGLISH)

DISCOVER MORE AT
HYDROTECHNIK.CO.UK/WLB-DDPG

Please keep this operating manual for future reference.
If the device is resold, please provide the operating manual along with it.
Technical changes reserved.
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Cert. 00007

# TABLE OF CONTENTS

Copyright notice ..... 3
0. About this operating manual ..... 3
*0.1 Hazard signs and other symbols used ..... 3*
1. Device overview ..... 4
*1.1 Versions ..... 4*
*1.2 Type plate ..... 4*
*1.3 Delivery, unpacking and accessories ..... 5*
*1.4 Unpacking ..... 5*
*1.5 Scope of delivery ..... 5*
*1.6 Intended use ..... 5*
*1.7 Exclusion of liability ..... 6*
2. Safety instructions ..... 7
*2.1 Qualified personnel ..... 7*
*2.2 General safety instructions ..... 7*
*2.3 Special safety instructions ..... 7*
3. Construction, function and measuring process ..... 8
4. Connection and battery replacement ..... 9
*4.1 Connection ..... 9*
*4.2 Battery Replacement ..... 10*
5. Gauge operation and settings ..... 11
*5.1 LCD Display ..... 12*
*5.2 Gauge settings ..... 13*
*5.3 Datalogging with the DDPG Status ..... 13*
*5.4 Downloading & Opening Test Data ..... 13*
*5.5 Watchlog Visualizer ..... 13*
*5.6 Status Codes ..... 14*
*5.7 Errors and troubleshooting ..... 14*
*5.7.1 Hard Reset ..... 14*
*5.7.2 Clear Data ..... 15*
6. Watchlog Bluetooth live view and datalogging app ..... 16
7. Maintenance and cleaning, storage and transport ..... 17
*7.1 Maintenance ..... 17*
*7.2 Cleaning ..... 17*
*7.3 Return shipment to the manufacturer ..... 18*
8. Disconnection and disposal ..... 19
*8.1 Before disconnection ..... 19*
*8.2 Disassembly ..... 19*
*8.3 Disposal ..... 19*
9. Technical data ..... 20
*9.1 Dimensions ..... 20*
*9.2 Technical specifications ..... 21*
10. EC Declaration of conformity ..... 22

## COPYRIGHT NOTICE

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## 0. ABOUT THIS OPERATING MANUAL

- The operating manual is aimed at specialists and semi-skilled personnel.
- Before each step, read through the relevant advice carefully and keep to the specified order.
- Thoroughly read and understand the information in section 2. Safety instructions.

If you have any problems or questions, please contact your supplier or contact us directly.

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### 0.1 HAZARD SIGNS AND OTHER SYMBOLS USED



WARNING! / CAUTION! Risk of injury!
This sign indicates dangers that cause personal injuries that can lead to health defects or cause considerable damage to property.




CAUTION! Risk of injury in the case of excessive pressure!
This sign indicates dangers which could arise from excessive pressure in a piece of equipment.



CAUTION! Material damage!
This sign indicates actions which could lead to possible damage to material or environmental damage.



ADHERE TO OPERATING MANUAL!



NO DOMESTIC WASTE!
The device must not be disposed of together with domestic waste.



Pay attention to and comply with information that is marked with this symbol.



Follow the specified instructions and steps.
Adhere to the given order.



NOTICE!
This symbol indicates important notices, tips or information.



Check the specified points or notices.



Reference to another section, document or source.

# 1. DEVICE OVERVIEW

The DDPGs are digital pressure manometers/gauges with actual value and MIN/MAX displays. They are used to measure pressure in permanent installations or for mobile applications.

They have a rugged Cast Zinc housing. The electronics unit, the digital LCD digital display, the control panel and the replaceable batteries are housed inside the device.

The gauges have accuracies of ±0.2% relative to the corresponding full-scale reading (FS).

Used as a pressure reference, they provide an easy way of checking, adjusting and calibrating other items of pressure measuring equipment.

The gauge can also be equipped with optional Bluetooth transmission and internal datalogging.

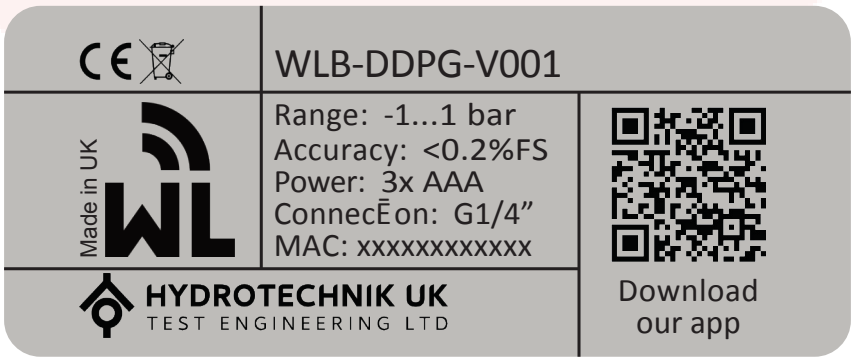
## 1.1 VERSIONS

The DDPG gauge is available for the following pressure ranges.

| *Part code* | *Pressure range* |
|---|---|
| WLB-DDPG-V016 | -1…1 bar |
| WLB-DDPG-0060 | 0…60 bar |
| WLB-DDPG-0250 | 0…250 bar |
| WLB-DDPG-0400 | 0…400 bar |
| WLB-DDPG-0700 | 0…700 bar |
| WLB-DDPG-1000 | 0…1000 bar |

## 1.2 TYPE PLATE

The type plate is located on the back of the DDPG. It contains the most important data.




*Type plate example*

## 1.3 DELIVERY, UNPACKING AND ACCESSORIES

All units have been carefully checked for their operational reliability before shipment.

- ☐ Immediately after receipt, please check the outer packaging for damages or any signs of improper handling.
- ☐ Report any possible damages to the forwarder and your responsible sales representative. In such a case, state a description of the defect, the type and the serial number of the device.

*Report any in-transit damage immediately.*
*Damage reported at a later date shall not be recognised.*

## 1.4 UNPACKING

↳ Carefully unpack the unit to prevent any damage.
↳ Check the completeness of the delivery based on the delivery note.



## 1.5 SCOPE OF DELIVERY

- ☐ 1x DDPG according to the order data.
- ☐ 1x Operating manual.
- ☐ Packaging or transport protection.

**IMPORTANT!**

↳ Use the type plate to check if the delivered unit corresponds to your order.

↳ Do not touch the measuring diaphragm

↳ In particular, for devices with electrical components, check to ensure you have the correct batteries (3 x 1.5Vdc AAA battery supply).

## 1.6 INTENDED USE

The DDPG digital gauge is intended solely for inspecting, adjusting and calibrating pressure measuring equipment.

Do not use the DDPG pressure gauge outside the specifications and do not disregard the operating instructions.

**WARNING! Not a safety component!**
The DDPG pressure gauge is not a safety component in accordance with directive 2006/42/EC (Machine Directive).
↳ Never use the DDPG pressure gauge as a safety component.

The operational safety of the device supplied is only guaranteed when used within the specified limits and for its intended purpose. The specified limits (9. Technical data) may under no circumstances be exceeded. This applies especially to the compliance with the permissible full-scale reading and the permissible temperature range.

Before ordering and installation, check that the gauge is suitable for your application.




**DANGER!**

**Risk of injury or material damage in the case of excessive pressure!!**

Exceeding the maximum overload values can lead to material failure of the digital gauge. At the same time, that can cause serious harm to health.

↳ Make sure that the overload values are never exceeded.

## 1.7 EXCLUSION OF LIABILITY

We accept no liability for any damage or malfunctions resulting from incorrect installation, inappropriate use of the device or failure to follow the instructions in this operating manual.

# 2. SAFETY INSTRUCTIONS



Before you install the DDPG, read through this operating manual carefully. If the instructions contained within it are not followed, in particular the safety guidelines, this could result in danger for people, environment, device and the system it is connected to.

The DDPG contains state-of-the-art technology. This relates to the accuracy, the operating mode and the safe operation of the device. In order to guarantee that the device operates safely, the operator must act competently and be conscious of safety issues.

Hydrotechnik UK provides support for the use of its products either personally or via relevant literature. The customer verifies that our product is fit for purpose based on our technical information. The customer performs customer- and application-specific tests to ensure that the product is suitable for the intended use. With this verification all hazards and risks are transferred to our customers; our warranty is not valid.

## 2.1 QUALIFIED PERSONNEL

⚠ The personnel who are charged for the installation, operation and maintenance of the DDPG must hold a relevant qualification. This can be based on training or relevant tuition.

⚠ The personnel must be aware of this operating manual and have access to it at all times.

⚠ Any electrical connection should only be carried out by a fully qualified electrician.

## 2.2 GENERAL SAFETY INSTRUCTIONS

⚠ In all work, the existing national regulations for accident prevention and safety in the workplace must be complied with. Any internal regulations of the operator must also be complied with, even if these are not mentioned in this manual.

⚠ Degree of protection according to EN 60529.
Ensure that the ambient conditions at the site of use do not exceed the requirements for the stated protection rating (9. Technical data).

⚠ Only use the DDPG if it is in perfect condition. Damaged or faulty devices must be checked without delay and, if necessary, replaced.

⚠ When fitting, connecting and removing the DDPG use only suitable appropriate tools.

⚠ Do not remove or obliterate type plates or other markings on the device, as otherwise the warranty is rendered null and void.

## 2.3 SPECIAL SAFETY INSTRUCTIONS

Warnings that are specifically relevant to individual operating procedures or activities can be found at the beginning of the relevant sections of this operating manual.

# 3. CONSTRUCTION, FUNCTION AND MEASURING PROCESS

## 3.1 SETTING THE DATE AND TIME

- Press and hold (for 2 seconds) both the UNIT MENU (2) and MODE ZERO (3) buttons to enter the time and date settings. Release the buttons when **YEAr** is displayed on the screen.
- In this mode use each button as follows:
  - (1) Cycle through each setting
  - UNIT MENU (2) Decrease the current value
  - MODE ZERO (3) Increase the current value
  - SET REC (4) Save and return to the main screen
- The settings available appear in the following order.

  Cycle through each setting using (1):
  - **YEAr** (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 SET REC (4) to save and return to the main screen.



# 4. CONNECTION AND BATTERY REPLACEMENT

The DDPG digital gauge has a G1⁄4" (BSPP) male thread and is supplied with batteries fitted. The device is ready for operation after it is switched on (5.2 Switching on and off).

**WARNING! Material damage and risk of injury!**
**Comply with the nominal pressure specifications of the measurement point and the adapter!**

The connection (AF 27) is approved up to a nominal pressure of 1,000 bar.

- Observe the nominal pressure specifications of the integrated measurement points and the specified safety factors.
- Comply with the instructions in these operating manual!
  In particular, improper installation of the gauge and the related adapter can lead to the gauge tearing off.

Please observe the following instructions when using the DDPG.

- ☐ Only authorised personnel are permitted to operate and control the device.
- ☐ The deployment location should be sufficiently bright and easy to operate.
- ☐ Take appropriate precautions to protect the device from damage.
- ☐ Pay attention to adequate protection against weather. Observe the degree of protection according to EN 60529 (9. Technical data).

## 4.1 CONNECTION




1. Prepare the measurement setup for connection to the G1⁄4" pressure connection point.
   ⚠ Only use adapters with corresponding nominal pressure specifications.
   ⚠ *Do not install when the device is powered on.*
2. Make sure that the gasket is correctly seated in the pressure connection point.
3. Carefully turn the reference by hand into the measurement setup thread.
4. Tighten the pressure connection point with an open-end
   ⚠ wrench (AF 27).
   *Recommended assembly torque 40Nm.*
   ⚠ Do not over-tighten the gauge.
5. Carefully rotate the gauge body by hand, within the 330° rotation limits, to a suitable position.
   ⚠ Only rotate the dial after installation.

IMPORTANT! Check for free turning.

The housing of the DDPG can be carefully rotated on the pressure connection point. During direct assembly, make sure that no attachments interfere with the free turning.

## 4.2 BATTERY REPLACEMENT

**CAUTION! Observe the battery type and polarity!**
Damage can be caused if a different type of batteries is used or the batteries are in- correctly inserted during replacement.
- Use only new AAA batteries of the same brand when replacing.
- Pay attention to correct the polarity when inserting.

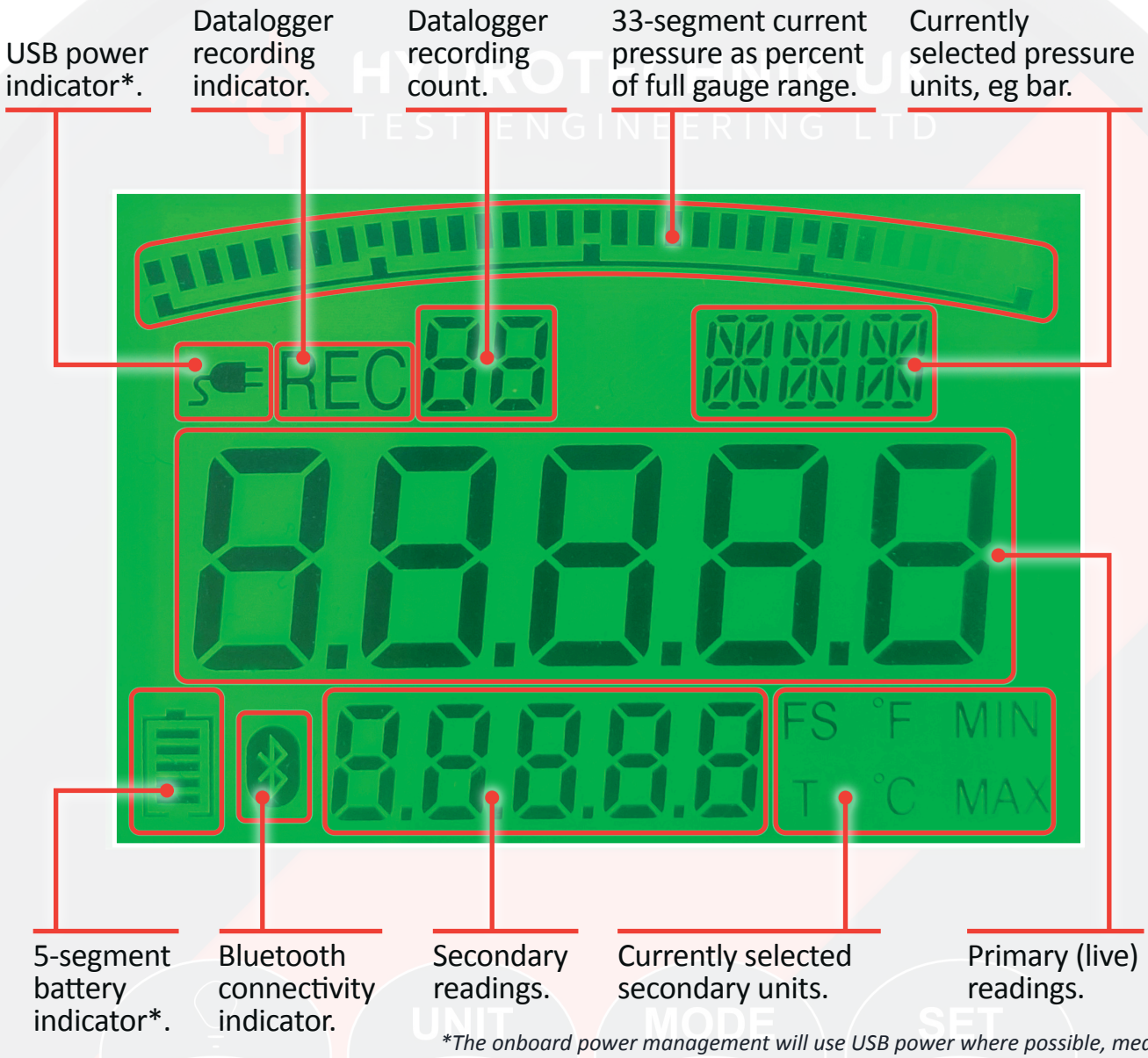
Comply with the following instructions when replacing the batteries.

1. Switch off the device.
2. Removal of the gauge from the pressure connection point is recommended to minimise the risk of damage to the gauge. Isolate the gauge from the pressure line and remove the gauge, where possible (8.1-8.2 Disconnection).
3. Open the housing by loosening the three large retainer screws from the rear cover. The screws are attached to the rear cover.
   Set the rear cover aside.
4. Remove the depleted batteries.
   ⚠ No domestic waste!
   ⚠ The batteries must be disposed of safely and in accordance with local regulations.
5. Insert the new batteries.
   **Pay attention to the polarity!**
6. Carefully reattach the rear cover to the housing with the retaining screws.
7. If the gauge was removed from the hydraulic line, carefully reattach following the included guidelines (4.1 Connection).
8. After powering on the gauge a zero reset may be required.



# 5. GAUGE OPERATION AND SETTINGS

## 5.1 LCD DISPLAY




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

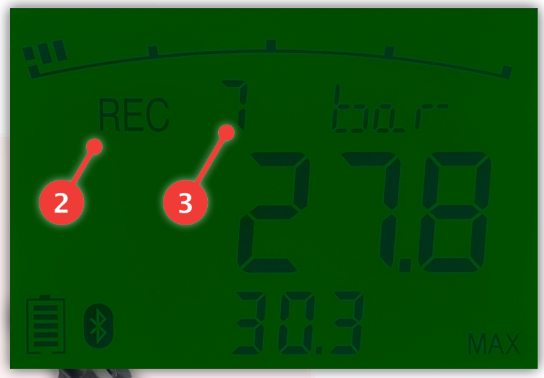
## 5.2 BASIC GAUGE USE

| Button | Short press | Press and hold (for 3 seconds) |
|---|---|---|
| | Backlight on (when gauge is powered on).<br>Power on (when gauge is powered off). | Power off (when gauge is powered on). |
| UNIT MENU | Toggle between pressure units.<br>*PSI, mH20, inHg, Mpa, ATM, kgf, or bar.* | Enter settings menu (see settings page). |
| MODE ZERO | Change displayed secondary readings. *Full Scale (FS), Temp (T) °C, Temp (T) °F, Pressure (MIN) or Pressure (MAX).* | Set the tare point to be considered zero system pressure and zero the min/max values. |
| SET REC | Confirm selected settings (when in settings menu). | Start or stop datalogging. |

## 5.3 DATALOGGING WITH THE DDPG

1. Press and hold (for 3 seconds) the SET REC 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.

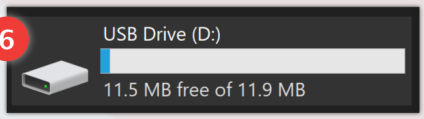
*The WLB-DDPG automatically assigns a scanning rate from 100ms up to 6.4s depending on the duration of the log (max 48h, 27000 records), please refer to the product datasheet for further detail.*

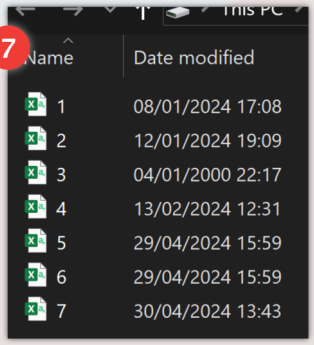


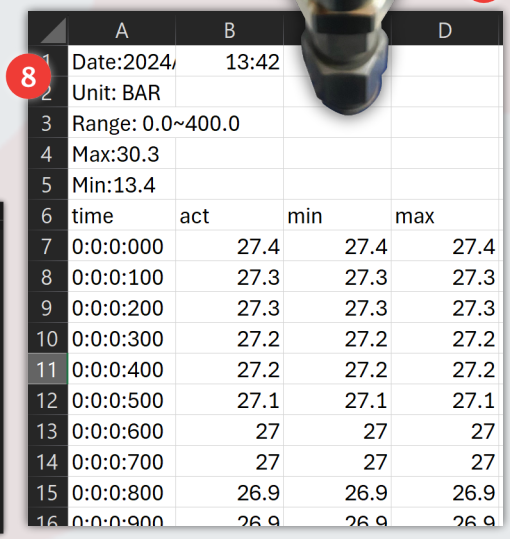

## 5.4 DOWNLOADING & OPENING TEST DATA

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).



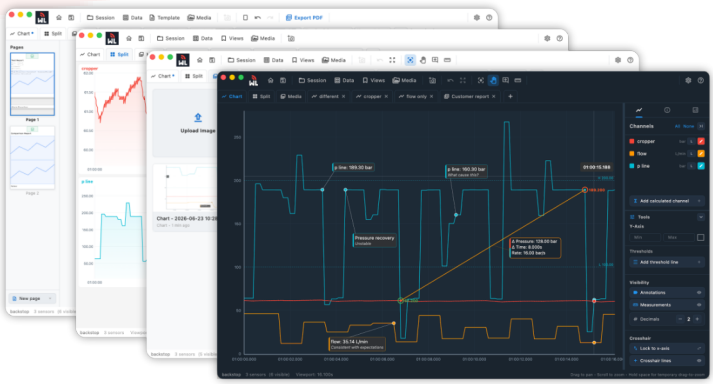




## 5.5 WATCHLOG VISUALIZER

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

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

**HYDROTECHNIK.CO.UK/VISUALIZER**



## 5.6 STATUS CODES

- Press and hold (for 3 seconds) the UNIT MENU (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:
  - UNIT MENU (2) Cycle through each setting
  - MODE ZERO (3) Increase/toggle the current value
  - SET REC (4) Save and return to the main screen
- Note that you cannot decrease the current value. Instead, MODE ZERO (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 UNIT MENU (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 SET REC (4) to reset all settings | |
| dEl | Clear all data stored | Press SET REC (4) to clear all stored test data | |
| SEPAr | Decimal separation | Comma / Decimal point | Comma |
| tEnnP | Temperature unit | °C/°F | °C |

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

**Important note:** deleting files is far more reliable when carried out using your computer. After copying the files to your Windows or Mac computer, simply delete the files as you would with any external hard drive. *On a Mac you must also remove the file from trash after deletion to free up the available space.*

## 5.7 ERRORS AND TROUBLESHOOTING

The following table may help to diagnose errors with your gauge.

| Symptom | Potential cause | Proposed solution |
|---|---|---|
| Dark backlight | Low battery. | Replace battery. |
| Flickering display | | |
| Pressure value is incorrectly displayed as zero | The ZERO button has been pressed when the gauge is under pressure, setting the reading to zero. | Press the ZERO button with no pressure load to set the zero pressure correctly. |
| Pressure value not changing | Pressure hole is blocked. | Check, and clear the pressure hole. |
| | Sensor is damaged. | Contact Hydrotechnik UK. |
| E–H displayed on display | Pressure overload. | Do not use the sensor for pressures outwith the sensor range. |
| | Sensor is damaged. | Contact Hydrotechnik UK. |
| Pressure value updating too slowly | The display update rate is incorrectly or unsuitably set. | Adjust the display update rate (**FILt**). See gauge settings on page 3. |
| Pressure value updating too quickly | | |
| Frequent pressure shocks / spikes | Leakage. | Add pressure snubber. |
| | Expected high pressure changes. | |
| | Sensor is damaged. | Contact Hydrotechnik UK. |
| High temperature | High system temperature. | Add radiator tube. |
| | Sensor is damaged. | Contact Hydrotechnik UK. |
| Lo DSH displayed on display | Memory is full . | Follow 'Clear Memory, Instruction below (5.7.2). |

### 5.7.1 HARD RESET

For guidance on how to hard reset the device, please click to view the video below or scan the QR code.



## 5.7.2 CLEARING MEMORY

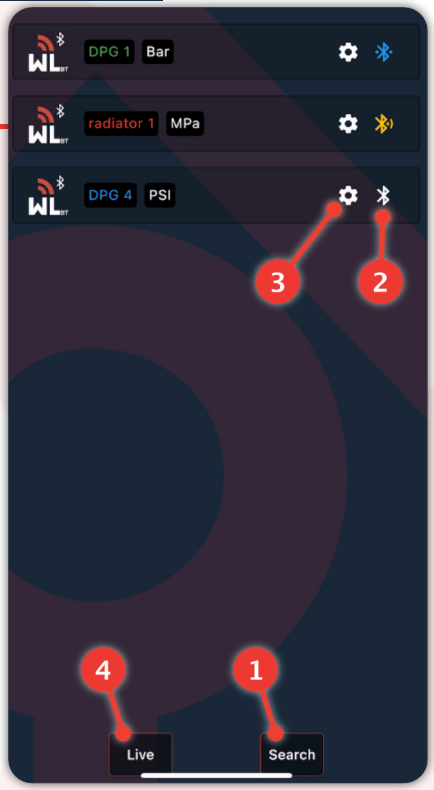
1. Hold ‘unit/menu’ button until menu shows
2. Press ‘unit/menu button’ 7 times to cycle through until ‘del data’ show
3. Press ‘mode/zero’
4. ‘Del data’ will change to ‘del on'
5. Pressure ’set/rec’ button - ‘C- -L’ will show and revert to home display
6. All files will be cleared.

# 6. WATCHLOG BLUETOOTH LIVE VIEW AND 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.

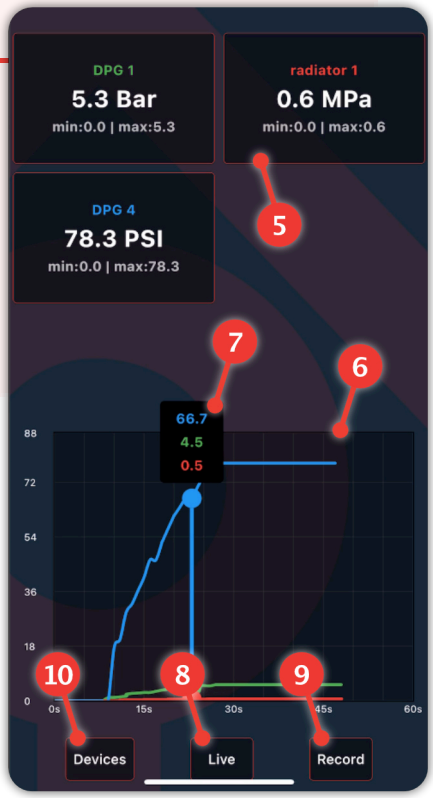
To download the Watchlog Bluetooth app or watch a video overview of app use scan the QR code to the right with your mobile device or visit **hydrotechnik.co.uk/ddpg**.

## 6.1 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.

## 6.2 Viewing and recording 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).

# 7. MAINTENANCE AND CLEANING, STORAGE AND TRANSPORT

**CAUTION! Material damage and loss of warranty!**
If the customer makes changes or intervenes in the device, important parts or components can be damaged.
Such intervention leads to the voiding of any warranty and the manufacturer's responsibility!
↳ Never modify the device or perform any repairs yourself.

## 7.1 MAINTENANCE

The digital pressure gauge DDPG is maintenance-free and cannot be repaired by the user. In case of a defect, the device must be replaced or returned to the manufacturer for repair.

The only thing that needs to be regularly replaced is the batteries. We recommend replacing them with new ones every 2 years or sooner (4.2 Battery Replacement).

## 7.2 CLEANING

Clean the DDPG with a dry or slightly damp lint-free cloth. Do not clean with sharp objects or aggressive agents.

**PROCEED CAUTIOUSLY! Electronic Component!**
The device contains sensitive electronic components.
↳ Use the original packaging or comparable for transport or shipping.
↳ Avoid shocks and strong vibration.
↳ Protect the device against humidity.

**IMPORTANT! Remove the batteries!**
If the device will not be used for longer periods, the batteries should be removed from the device to preclude any leaking damage.

## 7.3 RETURN SHIPMENT TO THE MANUFACTURER

Due to legal requirements placed on environmental protection and occupational safety and health and to maintain the health and safety of our employees, all units returned to Hydrotechnik UK for repair must be free of toxins and hazardous substances. That also applies to cavities in the devices. If necessary, the customer must neutralise or purge the unit before return to Hydrotechnik UK.

Costs incurred due to inadequate cleaning of the device and possible costs for disposal and/or personal injuries will be billed to the operating company.



**WARNING! Risk of injury due to insufficient cleaning!**
The operating company is responsible for all damages and harm of any kind, in particular physical injuries (e.g. caustic burns or toxic contaminations), decontamination measures, disposal etc. that can be attributed to insufficient cleaning of the measuring instrument.

↳ Comply with the instructions below before returning the unit.

The following measures must be taken before sending to Hydrotechnik UK for repair.

- ↳ Remove the batteries before shipping. Do not ship the batteries with the DDPG.
- ↳ Clean the device thoroughly. This is of extreme importance if the medium is hazardous to health, i.e. caustic, toxic, carcinogenic or radioactive etc.
- ↳ Remove all residues of the media and pay special attention to sealing grooves and slits.
- ↳ Attach a note describing the malfunction, state the application field and the chemical/physical properties of the media.
- ↳ Please contact your vendor for the procedure for sending returns and please specify a point of contact in case our service department has any questions.

The customer must confirm that the measures were taken to ensure any returned product is free from any harmful substances or product.

# 8. DISCONNECTION AND DISPOSAL



**CAUTION! Risk of injury!**
Never remove the device from a plant in operation.
↳ Make sure that the plant is shut down professionally.

## 8.1 BEFORE DISCONNECTION

Prior to disassembly, ensure that the equipment

- ☐ is switched off.
- ☐ is in a safe and de-energised state.
- ☐ is depressurised and has cooled down.

## 8.2 DISASSEMBLY

↳ Watch out for any leaking media. Take appropriate precautions to collect them.
↳ Loosen the pressure connection shank with an open-end wrench (AF 27).
↳ Manually turn the DDPG out of the measurement setup.

## 8.3 DISPOSAL

In conformance with the 2011/65/EU (RoHS) and 2012/19/EU (WEEE) directives, the device must be disposed of as electrical and electronic waste. Observe the legal regulations of the country in which the device is marketed.

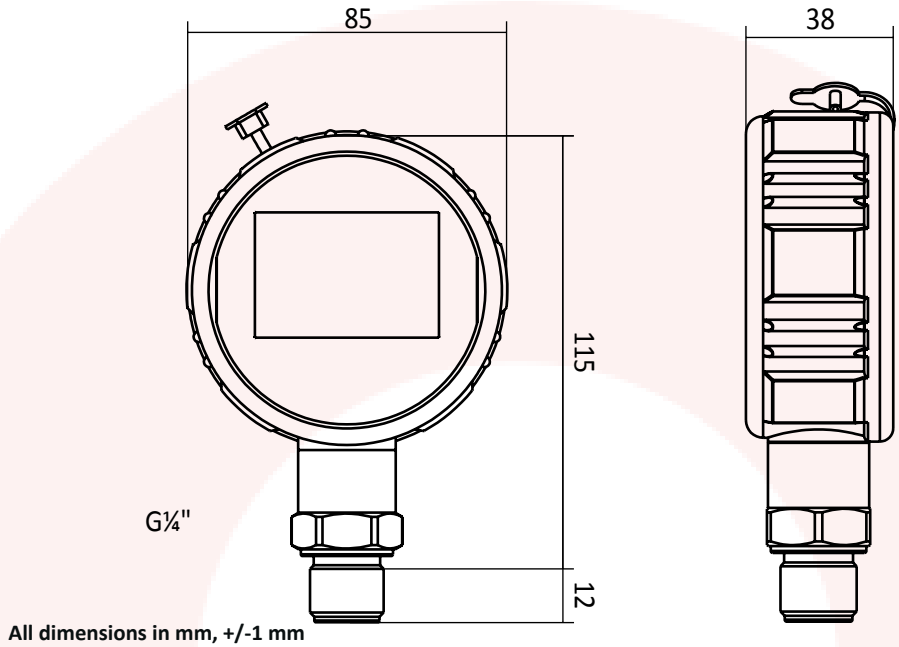


**NO HOUSEHOLD WASTE!**
The DDPG consists of various different materials.
It must not be disposed of with household waste.

↳ Take the DDPG to your local recycling plant or send the DDPG back to your supplier or Hydrotechnik UK.

# 9. TECHNICAL DATA

## 9.1 DIMENSIONS




**All dimensions in mm, +/-1 mm**

## 9.2 TECHNICAL SPECIFICATIONS

| | |
|---|---|
| **Pressure ranges** | Between -1...1000 bar |
| **Accuracy ±(% of full scale pressure value)(FS)** | 0.2% (0.1% and 0.05% accuracies available on request) |
| **Pressure units** | bar/mbar, kPa/MPa, PSI, kg/cm2, mH2O, inH2O, ATM |
| **Display type** | Multifunctional LCD, 4 1⁄2 digit, with background lighting |
| **Display functions** | Bar graph, pressure unit, display filter, MIN/MAX value, Overpressure indicator 110% of full scale pressure value (FS) |
| **Pressure measuring cell** | ≤ 10 bar piezo resistive, ≥ 20 bar thin film strain gauge |
| **Temperature compensation** | 0...50°C |
| **Temperature error** | 0.005% of full scale pressure value (FS) / K |
| **Measuring rate actual value** | 10ms |
| **Measuring rate bar graph** | 50ms |
| **Thread ISO 1179-2** | G1⁄4 with NBR gasket, AF27 |
| **Process connection material** | Stainless steel 1.4404 |
| **Medium temperature** | -20...80 °C |
| **Housing connection** | 270° axially rotatable |
| **Degree of protection DIN EN 60529** | IP65 |
| **Dimensions** | Ø 90 mm, D=45mm H=120mm with protection cap |
| **Materials** | Sensor Body 304L, Measuring Cell 316L |
| **Ambient conditions** | 0...50 °C with air humidity ≤85 % r.h. |
| **Weight** | 357g without 3xAA batteries fitted |
| **Vibration resistance IEC 60068-2-6** | 5g up to 500Hz |
| **Shock resistance IEC 60068-2-29** | 25g for 11ms |
| **Auto-off function** | Selectable switch-off time 5 minutes |
| **Battery type** | 3x 1.5 V AAA (Lithium batteries are recommended for full battery life performance) |
| **Battery operation** | 1500h |
| **Datalogger max. data sets** | 27000 per recording series |
| **Datalogger record series** | 1...10 |
| **Storage rate** | 0.1...6.4 s - automatic depending on recording duration |
| **Max. recording duration** | 48 h |
| **Data set information** | time / actual pressure / MIN/MAX value |
| **Digital data transmission** | serial USB 2.0 via USB-C port |
| **PC software** | Detection as USB data storage device, spreadsheet program (Excel) |
| **File format** | .csv |
| **Mobile device software** | Compatible with Watchlog Bluetooth iOS and Android apps for display and datalogging |
| **Linearisation** | The factory linearisation is changed via OFFSET and INCREASE.<br>A special programming adapter is required. Communication between PC/laptop and digital pressure gauge is via TTL level by means of a PC terminal program |
| **Certificate (optional)** | UKAS traceable certificate, works test certificate |



**CAUTION! Material damage!**
Exceeding the maximum overload values can lead to malfunctions and result in the digital gauge being destroyed.

# 10. EC DECLARATION OF CONFORMITY

In accordance with European Parliament and Council
Decision No 768/2008/EC Annex III

1. ***Product:***

| | |
|---|---|
| Product | Bluetooth enabled Pressure Gauges and Sensors |
| Model/types | DDPG, DPG, WLB-PT, WLB-TT |

2. ***Manufacturer:***

| | |
|---|---|
| Name | Hydrotechnik UK Test Engineering Ltd |
| Address | 1, Central park, Lenton Lane, Nottingham, NG7 2NR |

*Authorised Representative*

| | |
|---|---|
| Name | Hydrotechnik UK Test Engineering Ltd |
| Address | 1, Central park, Lenton Lane, Nottingham, NG7 2NR |

*Authorised Representative Service*

77, Camden Street Lower, Dublin, D02 XE80, Ireland

3. ***This declaration is issued under the sole responsibility of the manufacturer.***
4. ***Object of the declaration:***

| | |
|---|---|
| Product | Pressure gauges and Pressure sensor for reading hydraulic or pneumatic pressures from -1 up to 1,000 Bar |
| Specification | -1 up to 1,000 Bar |

5. ***The object of the declaration described above conforms with the relevant Union harmonisation legislation:***

| | |
|---|---|
| 2014/35/EU | The Low Voltage Directive |
| 2014/30/EU | The Electromagnetic Compatibility Directive |
| 2014/53/EU | Radio Equipment Directive |

6. ***References to the relevant harmonised standards used or references to the other technical specifications in relation to which conformity is declared:***

| **Reference & Date** | |
|---|---|
| EN 61326-1:2013 | EN 300328 V1.9.1 |
| EN 61326-2-3:2013 | |

7. ***Additional information***

*The SPBTLE-RF Bluetooth module has been certified according to the following standards:*

EN62479:2010

ETSI EN 301 489-1 V1.9.2:2011

ETSI EN 301 489-17 V2.2.1

ETSI EN 300 328 V1.8.1:2012

ETSI EN 300 328 V1.9.1: (2015)

EN 60950-1:2006 + A11:2009 + A12:2011 + A1:2010 + A2:2013 + AC:2011

| | |
|---|---|
| Signed for and on behalf of: | Hydrotechnik UK Test Engineering Ltd |
| Place of issue: | Nottingham, United Kingdom |
| Date of issue: | 26th June 2024 |
| Name: | John Richard Price |
| Position: | Managing Director |
| Signature: | |



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