

# Professional Mobile Sync Apps

**Digi-Pas®**  
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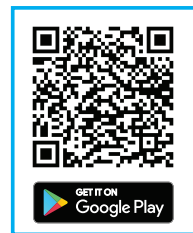
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The user-friendly Digi-Pas® Level Mobile Sync Apps can be easily installed on smartphone or tablet to fully utilize the remote wireless Bluetooth mobile connectivity to the Digi-Pas® 2-axis Ultra Precision Inclinometer, providing an amazing user experience of 'one-man operation' for machine installers to perform remote 2-axis simultaneous leveling & alignment task conveniently and speedily.

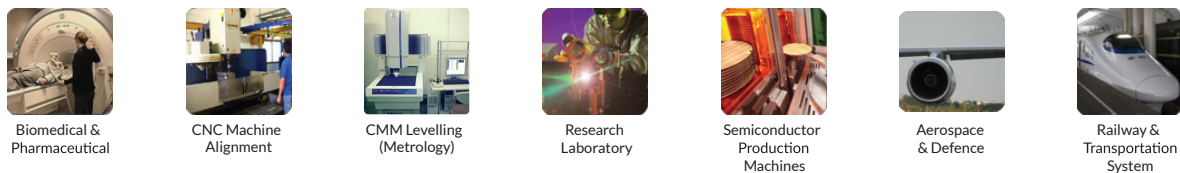
## Benefit

- Dual-Axis Numeric and Graphical Display of Measurement Data**  
 Simultaneous 2-axis angular numerical and graphical measurement readouts display on tablet/smartphone screen via Bluetooth Wireless link.
- Measurement Data Display & User Interface**  
 Built-in user interface employing animated display & visualization tools to interact with the device.
- Advanced Remote Measurement**  
 User interface becomes simple and straightforward using animated vision approaches.
- Real-Time Remote Streaming Measurement**  
 Remote measurement and continuous monitoring on precision Machine, Test and Measurement equipment for Levelling can be achieved via the use of over Bluetooth wireless link.

### Bluetooth Connectivity Smartphone / Tablet



### Applications :



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JCL-2-08590-99-003

# 2-Axis Ultra Precision Inclinometer



RESOLUTION:	
DWL-8500XY	DWL-9000XY
1 arcsec.	0.2 arcsec.
5µm/M	1µm/M

Digi-Pas® DWL-8500XY and DWL-9000XY are 2-Axis Ultra Precision Inclinometer with built-in Vibrometer, these instruments having high precision leveling, tilted-plane angles measurements, 2D surface-plane profiling & precision alignment tasks, and capable of real-time wireless Bluetooth/USB remote measuring & data logging when used with PC Sync Software/ Mobile Sync App.

These instruments are exceptionally engineered to greatly simplifying the task of engineering professionals & scientists in installation, setting up, maintenance and characterization of very large-sized CNC machines, plane-surface flatness profiling, precision test/measuring instruments & 2D alignment-sensitive equipment.

**Innovation & Technology Driven™**



Instrument accuracy is verified by accredited 3rd Party calibration & traceable to UKAS, JIS, NIST & DIN, and manufactured under SGS certified ISO quality standards:



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# 2-Axis Ultra Precision Inclinometer

## Instrument Overview

- 2-Axis colour graphic simultaneous display of leveling reading & surface geometry profile measurements
- Built-in Vibrometer for real-time vibration measurement
- Real-time digital & analogue display
- Wireless Bluetooth/USB connectivity for remote data logging & analysis
- 3-points contact base for stable surface-to-surface contact to prevent "rocking"

## Technical Specification

MODEL	DWL8500XY	DWL9000XY
Measurement Range (Single Axis Mode)	0.0 to 14400 arcsec (0.0000° to ± 4.0000°)	0.0 to 7200 arcsec (0.0000° to ± 2.0000°)
Measurement Range (Dual Axis Mode)	0.0 to 7200 arcsec (0.0000° to ± 2.0000°)	0.0 to 3600 arcsec (0.0000° to ± 1.0000°)
Resolution	1 arcsec (≤ 5µm/M)	0.2 arcsec (≤ 1µm/M)
Accuracy	± 1 arcsec at 0 ~ 1080 arcsec; ±3 arcsec at other angles	±0.6 arcsec at 0 to ±100 arcsec; ±1.2 arcsec at other angles
Repeatability	1 arcsec (≤ 5µm/M)	0.2 arcsec (≤ 1µm/M)
Measurement Speed	≤ 8 Sec	≤ 25 Sec
Response Time	≤ 3 Sec	≤ 3 Sec
Vibrometer (Relative g)	2.0	
Display	Colour TFT LCD	
Power Supply	4 x AAA 1.5V Batteries / USB	
Material	PC ABS / Alloy Steel	
Connectivity	USB 2.0 Cable (≤ 5 metres) Bluetooth Industrial Class 1 (≤30 metres)	
PC SYNC Software	Professional Edition (included)	
Operating Temperature	+10°C to +40°C (Calibrated for the entire temperature range)	
Storage Temperature	-20°C to +60°C	
Dimension (mm)	188 x 62 x 37	
Nett Weight (Approximate)	1150 gram	

Note : Product specification and appearance are subjected to change for improvement without prior notice.

## Instrument Features

- 3D SURFACE GEOMETRY PROFILE GRAPH**  
Enable user to perform 3D surface flatness geometry measurement in 3-Dimensional visual graph when in synchronization with PC using Professional PC Sync software.
- ANGLE METER**  
Real-time colour graphic display for single/dual-axis digital & analogue angle measurements, data acquisition & logging on device LCD screen or PC monitor.
- VIBRO METER**  
Real-time colour graphic display for vibration measurement and data logging on device screen or PC monitor.
- ALTERNATE ZERO SETTING**  
Enable user to measure relative angles at a common plane with respect to a reference angle set to zero.
- ABSOLUTE LEVEL SETTING**  
Enables user to perform absolute symmetry readings for both "front" & "reverse" (180 degrees) positions of any measurement angle to determine zero datum with reference to center of gravity.
- WIRELESS SYNC**  
Bluetooth wireless sync to computer/tablet/smartphone for remote measurement, data acquisition, logging & analysis.
- TEMPERATURE COMPENSATED**  
The instrument/device is temperature compensated for the entire specified operating temperature range.

## Accreditation

DWL-8500XY & DWL-9000XY instrument's accuracy is verified by accredited 3rd party independent calibration & test bodies and National Metrology Centre traceable to SI standard and NIST, JIS, UKAS & DIN under CIPM MRA.

## Advantages of 2-Axis Ultra Precision Inclinometer

### SPEED, PRECISION & EFFECTIVENESS

Precision levelling, angle measurement/alignment and surface flatness profiling tasks essentially involve 2-dimensional planes rather than single-axis. Thus, 2-axis simultaneous display of surface plane angles readings are required to effectively guide engineers in adjusting precision object/machine to a targeted position accurately and speedily.

Digi-Pas® pioneered world's-first 2-axis simultaneous angles display instrument (U.S. patented) embedded with vibrometer which offers superior performance. It empowers engineers in eradicating constraints associated with using traditional single-axis 'bubble' or digital levels that require them to conduct those time-consuming tasks 'one axis at a time' with tedious trial-and-error iterations.

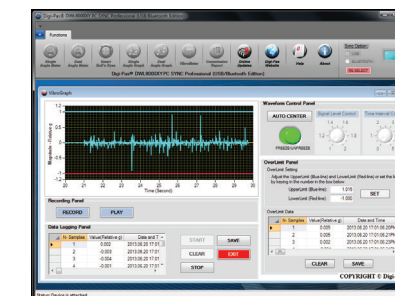
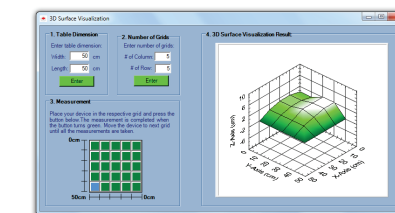
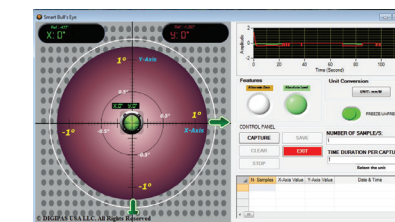
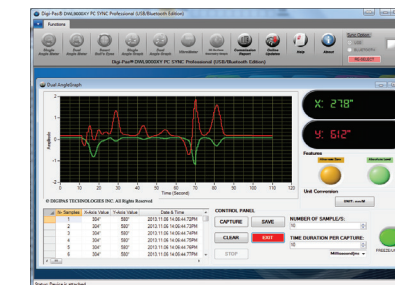
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# Professional PC Sync Software

Digi-Pas® Professional PC Sync is a 'plug & play' user-friendly interface software (embedded with National Instrument software) specifically designed for ultra-precision application to enable remote real-time measurement, user-definable data acquisition & logging through wireless Bluetooth connectivity/USB cable with 2-Axis Ultra Precision Inclinometer.



## PC Sync Software Features



### Single-Axis & Dual-Axis Angle Graphs

- Line graph display and numerical readings for single-axis or dual-axis angle/levelling measurement
- Enables recording of machine's levelling status changes over a period of time

### SMART 2D BUBBLE®

- Simultaneous graphical bull's eye (with auto range feature) and numeric display of 2-axis angle/levelling measurement
- Clear indication of a plane surface's elevation point simplifies 2D alignment tasks

### 3D Surface Flatness Graph

- Enable 3D surface flatness geometry measurement, profiling and characterization
- 3D visual graph and numeric data can be saved in Excel file

### VibroMeter Graph

- Numerical and graphical display of vibration magnitude and pattern/graph for effective assessment of vibration conditions
- Fast sampling rate at 10ms (milliseconds) per data capture
- Vibration data can be saved in Excel file for production yield improvement and scraps reduction analysis

### Single-Axis Angle Meters

- Real-time single-axis angle/levelling measurement in graphical and numerical display
- Large, easy-to-read display with units include arcsecond & mm/M



Online Retailers

