#### **TECHNICAL SPECIFICATION:**

		MODEL SERIES						
TECHNICAL DATA QUICK REFERENCE*		80 100 200 280Pro 600 680Pro 1000XY						
								1 1 1 1 1 1 1 1 1
Туре		Pocket-Size	Module	Torpedo	Waterproof	Heavy Duty	Waterproof	2-Axis Post
Measurement range	(Single Axis)				±0° ~ ±90°			
Measurement range (Dual Axis)								±0° ~ ±45°
Resolution	0.1° (1.745mm/M)	DWL80E		DWL200				
	0.05° (1.0mm/M)	DWL80Pro	DWL130 / DWL180	DWL280	DWL280Pro	DWL600F	DWL680Pro	DWL1000XY
Accuracy	0.1°	DWL80E		DWL200				
	0.05°	DWL80Pro	DWL130 / DWL180	DWL280	DWL280Pro	DWL600F	DWL680Pro	DWL1000XY
(°) Degree, % slope		•	•	•	•	•	•	•
in/Ft, mm/M			•	DWL280	•	•	•	
Dual Axis XY measurement								•
Buzzer sound			•	•	•	•	•	•
HOLD function to freeze reading		•	•	•	•	•	•	•
Built in vials		•		•	•	•	•	•
Magnet		•		•	•			•
Backlight					LED	•	OLED	•
Alternate Zero (Set a	nny angle to 0)	•	•	•	•	•	•	
Inverted reading dis	play	DWL80Pro	•	DWL280	•	•	•	
Auto shut off (Power saving)		•	•	•	•	•	•	•
User self calibration		•	•	•	•	•	•	•
Dimension** L x H x	W (mm)	105 x 55 x 18	95 x 48 x 43	200 x 43 x 18	230 x 57 x 28	600 x 60 x 27	600 x 60 x 27	610 x 121 x 52
Operating temp.	0° ~ +50° (Celcius)	•	•	•	-20° ~ +60°	•	-20° ~ +60°	•
Storage temp	-10° ~ +60° (Celcius)	•	•	•	-30° ~ +70°	•	-30° ~ +70°	•
Waterproof rating					IP67		IP65	
Batteries			2 x CR2032		3 x AAA	2 x AAA	4 x AAA	2 x AAA

Note: \* Product Specification and appearance are subjected to change for product improvement without prior notice.

\* \* Dimension stated in this chart is approximation.

Blank Space - indicate this feature is not available for this model.

Dot "●" - indicate this feature is available for this model.

## **Applications:**

















Structure Alignment

Authorised Distributor:

Manufacturer

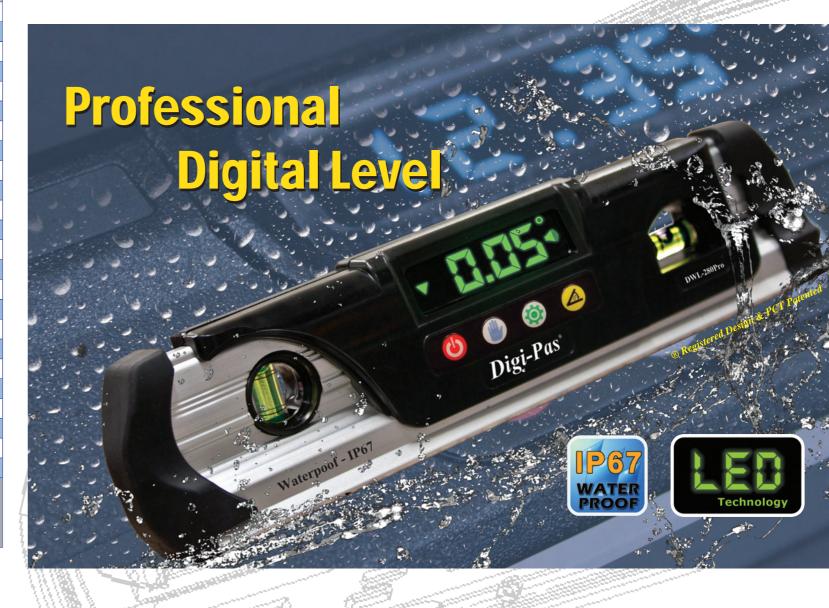
www.digipas.com





© 2013 DIGIPAS USA LLC. All Rights Reserved.

# Digi-Pas R A division of VENTURA group of companies



Innovation & Technology Driven™

## **Advanced Digital MEMS Technology**







Products tested by TÜV SÜD, SGS accredited body to comply with CE, FCC & RoHS, and traceable to UKAS, JIS, NIST & DIN, and manufactured under SGS certified ISO quality sta





























## PROFESSIONAL DIGITAL LEVEL

Innovation & Technology Driven<sup>TM</sup>

## **Pocket Size Digital Level - DWL 80 Series**



DWL 80 series is an aesthetic & innovative pocket-size digital level having a resolution of 0.1°/0.05°. The impact resistance ABS-PC polymer material case is moulded to tough aluminium based with built-in magnet.

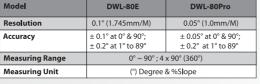
The high quality yet affordable price of DWL 80 series is suitable for entry DIY & professional users seek to have an amazing experience of precision digital levelling technology which the traditional spirit level is unable to











Features				
Handy pocket size				
Alternate Zero Function Yes Yes				
Inverted display	No	Yes		
User self calibration	Yes	Yes		
Automatic Shut off	Yes	Yes		







DWL 600 advanced electronic modules, with a resolution of 0.05°, is designed to be fitted into rugged aluminium structure of 600mm length to meet most challenging heavy duty applications. Calibration certificates obtained from USA, Japan, UK & Germany on product specification conformance are available for reference.

The digital level can withstand Impact & shock, making this series ideal for professional uses in tough working conditions.

Model	DWL-600F	
Resolution	0.05° (1.0mm/M)	
Accuracy	± 0.05° at 0° & 90°; ± 0.2° at 1° to 89°	
Measuring Range	0° ~ 90° ; 4 x 90° (360°)	
Measuring Unit	(°) Degree, %Slope, in/Ft & mm/M	

Features				
Illuminated Display	Backlight LCD			
Alternate Zero Function	Yes			
Inverted display	Yes			
User self calibration	Yes			
Automatic Shut off	Yes			





**Heavy Duty Digital Level - DWL 600 Series** 







Accuracy

Measuring Range

Measuring Unit







DWL-280Pro



0.05° (1.0mm/M)

± 0.05° at 0° & 90°: ± 0.2° at 1° to 89

0° ~ 90°; 4 x 90° (360°)

(°) Degree, %Slope, in/Ft & mm/M

DWL-680Pro

## **Digital Level Module - DWL 100 Series**



DWL 130 & DWL 180 modules having a resolution of 0.05° are primarily designed for user convenience application. These modules can be attached onto traditional spirit levels to INSTANTLY convert these spirit levels into highly accurate digital levels.

These modules can either CLIP-ON or SCREW-ON to various length & width conventional spirit level.

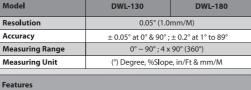












Features				
Adjustable Clip Width	Yes	No		
Alternate Zero Function	Yes	Yes		
Inverted display	Yes	Yes		
User self calibration	Yes	Yes		
Automatic Shut off	Yes	Yes		
Automatic Shut off	Yes	Yes		













## **Waterproof Digital Level Series**



DWL 280Pro & DWL 680Pro is a waterproof digital level embedded with advanced LED/OLED technology allowing for the brightest display. It is also designed to the stringent specification of IP65/67 - water, shock, dust & freeze proof, and wide operating temperature range allowing for high performance and reliability in the toughest working environment.

Both models have all the features necessary to make them indispensable levelling tool for the professional and tradesmen.

Features			
Illuminated Display	LED	Organic LED (OLED	
Wide Operating Temperature	-20°C ~ +60°C		
Waterproof TÜV SÜD Certification	IP67	IP65	
Inverted display	Yes		
User self calibration	Y	es	
Alternate Zero Function	Y	es	

















## **Torpedo Digital Level - DWL 200 Series**



DWL 200 & DWL 280 is a compact-size torpedo digital level having resolution of 0.1°/0.05°. The strong impact resistance ABS plastic material is moulded with a tough aluminium base to form the rugged yet elegant body

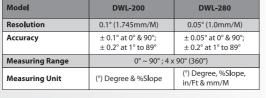
Built in strong magnets to hold on to metal work piece when measuring.











Features					
Compact Design					
Inverted display	No	Yes			
User self calibration	Yes	Yes			
Alternate Zero Function	Yes	Yes			

## 2-Axis Digital Post Level - DWL 1000XY Series



DWL 1000XY is a 2-Axis digital post level, having a resolution of 0.05°, designed for professional & tradesmen to achieve speedy and accurate means of putting up post, fences/guttering, pipe, window, and door frames.

It is ideally used for site inspection works especially to measure & guide for erecting a post in both vertical and horizontal axis concurrently.









Resolution	0.05° (1.0mm/M)
Accuracy	$\pm0.05^{\circ}$ at 0° & 90°; $\pm0.2^{\circ}$ at 1° to 89°
Measuring Range (Single Axis)	0° ~ ±90°
Measuring Range (Dual Axis)	0° ~ ±45°
Measuring Unit	(°) Degree & %Slope
Features	

2-Axis display (X & Y)	0° ~ 90° X & Y ±90° simultaneously
Illuminated Display	Backlight LCD
Alternate Zero Function	No
Inverted display	No
User self calibration	Yes





























































#### **TECHNICAL SPECIFICATION:**

Model	DWL2000XY	DWL3000XY	DWL3500XY
Measurement Range (Single Axis Mode)	$0.00^{\circ} \text{ to } \pm 90.00^{\circ}$	0.00° to ± 90.00°	0.000° to ± 20.000°
Measurement Range (Dual Axis Mode)	$0.00^{\circ} \text{ to } \pm 3.00^{\circ}$	$0.00^{\circ}$ to $\pm 15.00^{\circ}$	0.000° to ± 10.000°
Resolution	0.01° (175μm/M) (0.002 in/Ft)	0.01° (175μm/M) (0.002 in/Ft)	0.001° (18µm/M) (0.0002 in/Ft)
Accuracy	± 0.02° at 0.00° ~ ± 2.00° (349 μm/m) (0.004 in/Ft) (72 arcsec.) ± 0.04° at other angles	± 0.01° at 0.00° ~ ± 10.00° (175μm/M) (0.002 in/Ft) (36 arcsec.) ± 0.03° at other angles	$\pm 0.001^{\circ}$ at $0.000^{\circ} \sim \pm 2.000^{\circ}$ (18µm/M) (0.0002 in/Ft) (3.6 arcsec.) $\pm 0.003^{\circ}$ at other angles
Repeatability	0.01° (175μm/M) (0.002 in/Ft)	0.01° (175µm/M) (0.002 in/Ft)	0.001° (18μm/M) (0.0002 in/Ft)
Measurement Speed	≤3 Sec.	≤3 Sec.	≤ 5 Sec.
Vibrometer (Relative g)	-	1.0	2.0
Magnet	No	Yes	No
Display	Colour TFT LCD		
Power Supply*		4 x AAA 1.5V Batteries / USB	
Material	PC ABS / A	luminium	PC ABS / Cast Iron
Connectivity	USB 2.0 Cable (≤ 5 Meter)	USB 2.0 Cable (≤ 5 m Bluetooth Industrial C	etre) lass 1 (≤30 metre) (Optional)
PC SYNC Software	Professional Edition (Optional)	Basic Edition (Included) Professional Edition (Optional)	Basic Edition (Included) Professional Edition (Optional)
Operating Temperature	-10°C to +50°C (Calibrated for the entire temperature range)		
<b>Storage Temperature</b>	-20°C to +60°C		
Dimension (mm)	188 x 62 x 37		
Nett Weight (Approximate)	580 gram		1100 gram
User Self Calibration	Yes		
Note:  * Alternative device power can be obtained.	ed from External USB Power Source		

### **Applications:**

Authorised Distributor:









CMM Levelling (Metrology)



Laboratory



Production Machines



Aerospace & Defence



www.digipas.com





© 2013 DIGIPAS USA LLC. All Rights Reserved.

## Digi-Pas A division of VENTURA group of companies



Innovation & Technology Driven ™

## **Advanced Digital MEMS Technology**





































## PROFESSIONAL PRECISION DIGITAL LEVEL

Innovation & Technology Driven

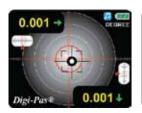
DWL-3000XY and DWL-3500XY is a 2-Axis High Precision Digital Level & Machinist Level with built-in Vibrometer. These digital levels are embedded with advanced MEMS sensor technology, designed for professional & trade specialist to achieve high accuracy and simultaneous display of angular & vibration measurements. DWL-2000XY is an affordable model introduced with basic features.

These digital levels are capable of remote real-time data acquisition, logging & analysis when in sync with PC. It is highly effective when used for installation, setting up and maintenance of high precision CNC machines, test and measuring equipment.

## **Device Overview**

- 2-Axis colour graphic display of angular & vibration measurements
- Real-time digital & analogue display for data logging & analysis
- High resolution of  $0.01^{\circ}(175 \,\mu\text{m/M})$  or  $0.001^{\circ}(18 \,\mu\text{m/M})$  (3.6 arcsec.)
- Built-in Vibrometer for real-time vibration measurement.
- Wireless/USB connectivity for remote data logging & analysis.

## **Device TFT LCD Displays**









## **Device Features & Icons**

#### ANGLE METER

Real-time colour graphic display for Single/Dual Axis digital & analogue angle measurements & data acquisition, logging on device screen/PC monitor.



#### VIBRO METER

Real-time colour graphic display for vibration measurement and data logging on device screen/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



#### SETTING MENU

Enable User to define various parameters on the device functions.



#### WIRELESS SYNC (Optional)

Wireless Sync to computer/tablet/smartphone for remote measurement data acquisition, logging & analysis.



#### TEMPERATURE COMPENSATED

These instrument/device are temperature calibrated for the entire specified operating temperature range



3-Points Contact Base

## **PC Sync Software / Mobile Sync Apps**

# **DUAL AXIS ANGLE GRAPH VIBROMETER**



## **Software Features**

**SMART BULL'S-EYE** 

- User-Friendly "Plug & Play" USB Connection for angle & vibration remote measurement, data acquisition, logging & analysis in computer.
- Bluetooth Connectivity (Optional) for wireless remote data acquisition, monitoring & logging.
- Digi-Pas Mobile Sync Apps in Android Tablet and Smartphone.



**Smartphone / Tablet** 

## Advantages of 2-Axis Digital Level

#### SPEED & PRECISION

Instant 2-Axis simultaneous digital display of high resolution & accuracy providing a comprehensive solution for levelling, alignment & vibration measurements resulting in time saving and quality professional works.

#### CLARITY

Digital colour graphic & numeric display to enable real-time collection & storage of digital angle/levelling/alignment data for machine commissioning accountability & analysis.

#### EFFECTIVE

The remote reading Wireless/USB Cable capability via PC/Tablet/Smartphone providing advantages that traditional single axis spirit level is difficult or unable to match. i.e. effectively, only one person is required to level/align a machine.

#### ACCREDITATION

Instrument accuracy is verified by accredited 3rd party Calibration & Test Service Providers in USA, Japan, UK & Germany and traceable to NIST, JIS, UKAS & DIN under ILAC & A2LA.



**Digi-Pas**® 2-Axis levelling Utilizing Advanced Digital MEMS Technology



Traditional single axis levelling method















































## **Features Comparison**

#### **PC Sync Software**

Feat	ures	PC Sync Free Edition	PC Sync Pro Edition
	SMART 2D BUBBLE®		
	DWL-2000XY		✓
	DWL-3000XY		✓
	DWL-3500XY		✓
	Single-Axis Angle Meter		
	DWL-2000XY	✓	<b>*</b>
	DWL-3000XY	<b>~</b>	<b>*</b>
	DWL-3500XY	✓	<b>*</b>
	Dual-Axis Angle Meter		
	DWL-2000XY	✓	✓
	DWL-3000XY	<b>✓</b>	<b>*</b>
	DWL-3500XY	<b>*</b>	<b>*</b>
	Single-Axis Angle Graph		
	DWL-2000XY	✓	<b>*</b>
	DWL-3000XY	<b>*</b>	<b>*</b>
	DWL-3500XY	✓	✓
	Dual-Axis Angle Graph		
	DWL-2000XY		
	DWL-3000XY		<b>*</b>
	DWL-3500XY		<b>*</b>
	Vibrometer Graph		
	DWL-2000XY		
	DWL-3000XY		✓
	DWL-3500XY		<b>*</b>
	USB Connectivity		
	DWL-2000XY	<b>✓</b>	<b>✓</b>
	DWL-3000XY	<b>~</b>	<b>*</b>
	DWL-3500XY	<b>~</b>	✓
	Bluetooth Connectivity		
	DWL-2000XY		
	DWL-3000XY		✓
	DWL-3500XY		✓
		•	

#### **Mobile Sync Apps**

Features	Mobile Sync Free Edition	Mobile Sync Pro Edition
SMART 2D BUBBLE®		
DWL-3000XY		✓
DWL-3500XY		✓
Single-Axis Angle Meter		
DWL-3000XY	✓	✓
DWL-3500XY	<b>*</b>	✓
Dual-Axis Angle Meter		
DWL-3000XY		✓
DWL-3500XY		✓
Bluetooth Connectivity		
DWL-3000XY	<b>*</b>	✓
DWL-3500XY	✓	✓

Note: Only Bluetooth connectivity available for Mobile Sync Apps

## **PC System Requirements**

User's PC is recommended the following items to be installed for using the PC Sync Software:

- Microsoft framework 3.5 for 32bit Windows OS or
- Microsoft framework 4.0 for 64bit Windows OS
- Windows XP service pack 3 / Windows Vista / Windows 7

The following item are required:

- At least 1 GB Ram
- At least 100MB free disk space on hard drive
- Microsoft Excel 2007 and above
- USB 2.0 Port
- Bluetooth adapter (For Bluetooth Connection)

#### **Applications:**















Authorised Distributor:

www.digipas.com



© 2013 DIGIPAS USA LLC. All Rights Reserved.

## PC Sync Software & Android Apps



## Software Icon













Digi-Pas® PC Sync Software & Android Apps enable wireless Bluetooth/USB connectivity and empower machine installers to perform 2-axis simultaneous levelling, alignment tasks and vibration measurements with speed and precision that conventional single-axis level is unable to match.

Innovation & Technology Driven TM



For 2-Axis Precision Digital Level

















## Professional PC Sync Software

Digi-Pas® Professional PC Sync is a 'plug & play' user-friendly interface software (embedded with National Instrument software) that supports remote real-time measurement, user-definable data acquisition & logging features through wireless Bluetooth/USB cable with Diai-Pas®2-Axis Precision Diaital Machinist Levels. It serves as an effective solution for continuous reading of levelling, angle measurement & vibration status of precision machines and equipment.

## PC Sync Software Features



#### SMART 2D BUBBLE®

This unique feature enables user to view and record 2-axis angle/levelling measurement simultaneously in graphical bull's eye (with auto range feature) and numeric formats. The Smart 2D Bubble® clearly indicates the elevation point of a plane surface enables user to perform 2D alignment activities efficiently.





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

Single-axis or dual-axis angle/levelling measurement is presented in line graph and numerical readings which enables user to monitor and record machine's levelling status changes over a period of time. Data captured can be saved in Excel file for further analysis.



#### VibroMeter Graph

VibroMeter provides numeric and graphical display of vibration magnitude and pattern/graph that serves as an effective assessment for vibration condition on precision machines/instruments and their surrounding floor. User can easily record and analyze vibration profiles to improve production yield and reduce scraps in precision CNC manufacturing & metrology applications.





#### Single & Dual-Axis Angle Meter

Real-time single-axis or dual-axis angle/levelling measurement is displayed graphically and numerically in degree, mm/M & In/Ft. units concurrently on PC monitor.



#### **Commissioning Report**

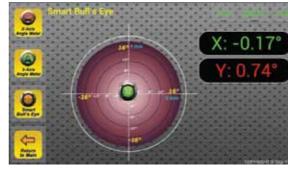
Machine levelling and vibration characteristics can be recorded and stored in PC in the form of Commissioning Report files. This is particularly useful for accountability and historical records on each machine/equipment installation, setup and preventive maintenance requirements.



## **Professional Mobile Sync Apps**

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

## **Android Apps Features**



Smart 2D Bubble®, view on smartphone or tablet screen using mobile sync apps

#### SMART 2D BUBBLE®

This feature enables user to view 2-axis angle/levelling measurement simultaneously in graphical bull's eye (with auto range feature) and numeric formats in degree, mm/M & In/Ft. units.

Quality and productive works can be achieved by completely eliminating the hassles of levelling one-axis-at-a-time (trial-and-error) experienced when using conventional single-axis levels.

#### Single & Dual-Axis Angle Meter

This feature enables user to view single-axis or dual-axis angle/levelling measurement in numerical and graphical display i.e. degree, mm/M & In/Ft. units.



Single & Dual-Axis Angle Meter , view on smartphone or tablet screen using Digi-Pas®

## **Support Android version**

- Android 2.2 Froyo
- Android 2.3 Ginger Bread
- Android 3.0 Honeycomb
- Android 4.0 Ice Cream Sandwich
- Android 4.1 Jelly Bean











































