

**2-Axis**

® U.S. Patent No.: US D692,328 S

Professional Digital Level  
 & VibroMeter

Digi-Pas<sup>®</sup>  
 DWL-3500 XY

**Professional  
 Precision Digital Level  
 with Vibrometer**

*Innovation & Technology Driven™*

Advanced Digital MEMS Technology



Traditional Pendulum/Vial methods



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 standards:



DWL3000XY and DWL3500XY 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. DWL2000XY 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°(175 µm/M) or 0.001°(18 µm/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

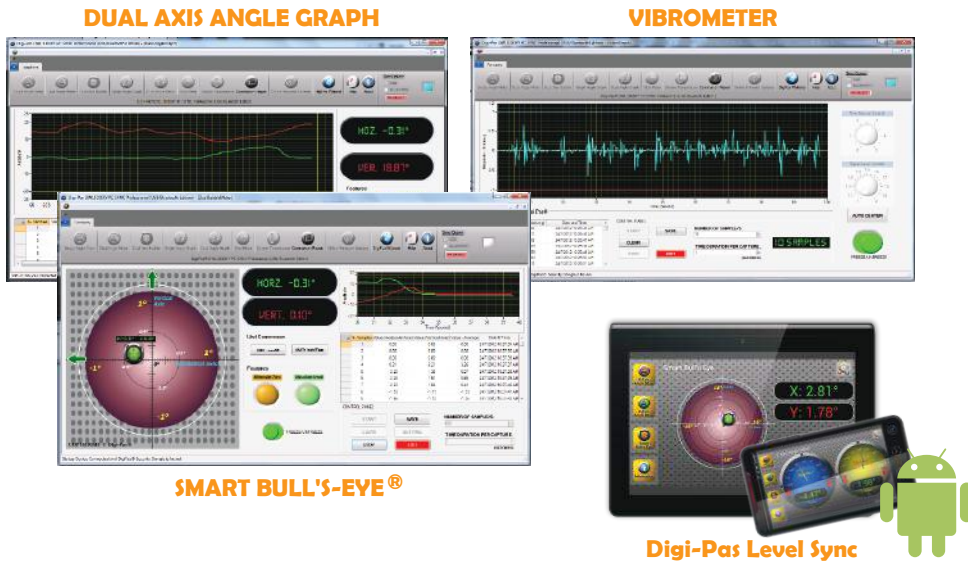
These instrument/device are temperature calibrated for the entire specified operating temperature range.



3-Points Contact Base



**PC Sync Software / Android Apps Sync**



**Bluetooth Connectivity  
Smartphone / Tablet**

**Software Features**

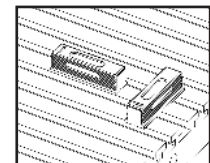
- User-Friendly “Plug & Play” USB Connection for angle & vibration remote measurement, data acquisition, logging & analysis in computer.
- Bluetooth Connectivity (Optional) for wireless remote data acquisition, monitoring & logging.
- Mobile Android Apps “Digi-Pas Level Sync” in Android Tablet and Smartphone.

**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  
(Vial bubble)

**TECHNICAL SPECIFICATION :**

Model	DWL2000XY	DWL3000XY	DWL3500XY
Measurement Range (Single Axis Mode)	0.00° to ± 90.00°	0.00° to ± 90.00°	0.000° to ± 20.000°
Measurement Range (Dual Axis Mode)	0.00° to ± 3.00°	0.00° to ± 15.00°	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	± 0.001° at 0.000° ~ ± 2.000° (18µm/M) (0.0002 in/Ft) (3.6 arcsec.) ± 0.003° 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 / Aluminium		PC ABS / Cast Iron
Connectivity	USB 2.0 Cable (≤ 5 Meter)	USB 2.0 Cable (≤ 5 metre) Bluetooth Industrial Class 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)		
Storage Temperature	-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 from External USB Power Source		

**Applications :**



Biomedical & Pharmaceutical



CNC Machine Alignment



CMM Levelling (Metrology)



Research Laboratory



Semiconductor Production Machines



Aerospace & Defence



Railway & Transportation System

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