



Innovation & Technology Driven TM



**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:













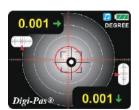
DWL3000XY and DWL3500XY is a 2-Axis High Precision Digital Level & Machinist Level with built-in Vibrometer. These digital levels are embedded with advanced MEMS sensor technology, designed for professional & trade specialist to achieve high accuracy and simultaneous display of angular & vibration measurements. 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.

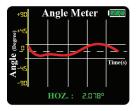
## Device Overview

- 2-Axis colour graphic display of angular & vibration measurements
- Real-time digital & analogue display for data logging & analysis
- High resolution of  $0.01^{\circ}(175 \,\mu\text{m/M})$  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 / Android Apps Sync

#### **DUAL AXIS ANGLE GRAPH**

#### **VIBROMETER**









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.

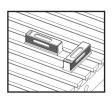
#### EFFECTIVE

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.

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)	$0.00^{\circ}$ to $\pm 90.00^{\circ}$	$0.00^{\circ}$ to $\pm 90.00^{\circ}$	$0.000^{\circ}$ to $\pm~20.000^{\circ}$
Measurement Range (Dual Axis Mode)	$0.00^{\circ}$ to $\pm 3.00^{\circ}$	$0.00^{\circ}$ to $\pm 15.00^{\circ}$	$0.000^{\circ}$ to $\pm 10.000^{\circ}$
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	$\pm0.02^{\circ}$ at $0.00^{\circ}\sim\pm2.00^{\circ}$ (349 µm/m) (0.004 in/Ft) (72 arcsec.) $\pm0.04^{\circ}$ at other angles	$\pm0.01^\circ$ at $0.00^\circ \sim \pm10.00^\circ$ (175 $\mu$ m/M) (0.002 in/Ft) (36 arcsec.) $\pm0.03^\circ$ at other angles	$\pm~0.001^\circ$ at $0.000^\circ \sim \pm~2.000^\circ$ ( $18\mu m/M$ ) ( $0.0002~in/Ft$ ) ( $3.6~arcsec.$ ) $\pm~0.003^\circ$ 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 / 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 &



CNC Machine Alignment



CMM Levelling (Metrology)



Research Laboratory



Production Machines



Aerospace & Defence



Railway &

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Authorised Distributor:











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