

2-Axis Precision Sensor Module

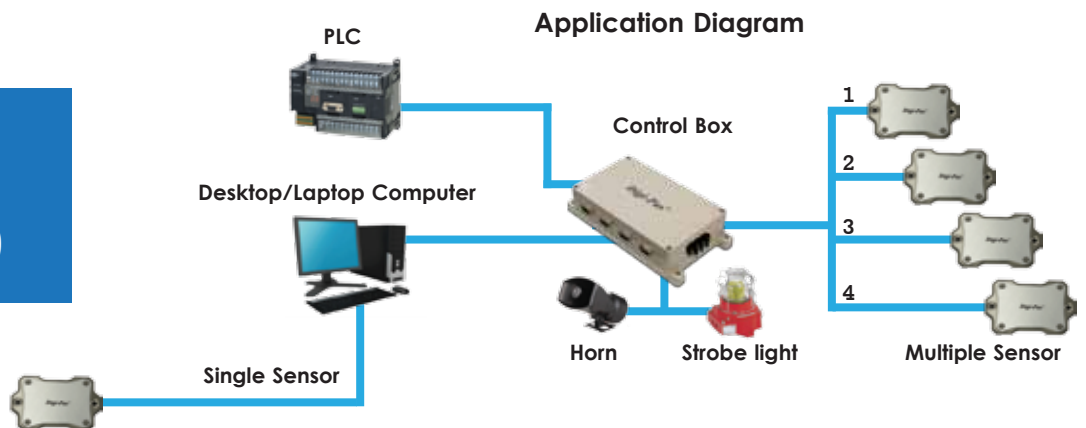
DWL-5000XY Series



® Registered Design



Accuracy
0.01° (175µm/M)
0.001° (≤18µm/M)



Digi-Pas® DWL-5000XY and DWL-5500XY is a **2-Axis Precision Sensor Module** that specifically designed to be integrated into a machine/equipment/structure for real-time simultaneous monitoring of leveling status & vibration measurement. These intelligent modules are embedded with advanced MEMS sensor technology, developed for designers to ensure precision machine structural stability on any desired computer numerical controlled machine/equipment.

These Digi-Pas® sensor modules are tough, durable, waterproof, shock resistance, small footprint and enabled to communicate through various protocols such as USB, RS232, RS485, CAN 2.0 & Bluetooth.



Innovation & Technology Driven™

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



2-Axis Precision Sensor Module DWL-5000XY Series

Product Specification

Model	DWL5000XY	DWL5500XY
Measurement Range (Single Axis Mode)	0.00° to ± 90.00°	0.000° to ± 10.000°
Measurement Range (Dual Axis Mode)	0.00° to ± 15.00°	0.000° to ± 5.000°
Resolution	0.01° (175 µm/M or 0.002 in/ft)	0.001° (≤18 µm/M or 0.0002 in/ft)
Accuracy	± 0.01° at 0° to 2.00° ± 0.03° at other angles	± 0.001° at 0° to 2.000° ± 0.003° at other angles
Repeatability	0.01° (175 µm/M or 0.002 in/ft)	0.001° (≤18 µm/M or 0.0002 in/ft)
Cross Axis Error	Negligible (± 0.0025°)	Negligible (± 0.00025°)
Vibrometer (Relative g)	1.0	2.0
Response time	10ms (milliseconds)	100ms (milliseconds)
Power Supply	9~35V DC / 5V DC (USB Mode)	
Output mode	USB, RS232, RS485, CAN 2.0, SPDT Relay, Bluetooth (Optional)	
Sensor Module Waterproof Rating	IP65	
Sensor Module Base Material	Aluminium	Cast Iron / Aluminium
Sensor Module Dimension (mm)	90 x 33 x 60	
Sensor Module Weight (approx.)	400g	600g
Operating Temperature	-20°C to +70°C	
Storage Temperature	-30°C to +80°C	

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

Advantages of 2-Axis Sensor Module

- SPEED & PRECISION**
 Instant 2-Axis simultaneous digital display of high resolution & accuracy, providing continuous monitoring, of machine/equipment leveling, tilt angle and vibration status in real time.
- PROGRAMMABLE & EASE FOR CUSTOMIZATION**
 With the Digi-Pas® leveling and vibration sensor module integrated into precision machine/equipment, the machine computer system is able to access machine positional stability in real time. Numeric and graphical displays on machine computer monitor to allow real-time monitoring of machine positional stability especially effective for machine operator to control product quality, yield & scrap.
- ACCREDITATION**
 Digi-Pas® Sensor Module 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.

Product Overview

- High accuracy of angle/level measurement 0.01° or 0.001°.
- Built-in Vibrometer for real-time vibration measurement.
- Multiple I/O communication protocols i.e. USB, RS232, RS485, CAN 2.0, & bluetooth (optional)
- Other Programmable Outputs: Relay Contacts (e.g. programmable tilt angle/vibration magnitude to trigger alarm, lights etc.).
- User-friendly PC-based Programmable Software to configure the sensor modules (OPTIONAL).

Applications:



CNC



Robotic Arm



Offshore Platform



CMM

Sensor Module Dimension

