



BS05

Attitude Unit





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The BS05 is a high-precision inertial bucket attitude unit integrated with a gyroscope, an accelerometer. Adopting dynamic solution and Kalman dynamic filtering algorithms, it calculates the bucket's motion attitude in real time. When used with the XFIX leveling instrument EX30, it enables accurate measurement under any excavator working attitude. Equipped with a high-capacity built-in battery, the device can run continuously for over 90 days on a full charge, based on an 8-hour daily working cycle.

ITEM		SPECIFICATION
Basic Parameters	Communication Interface	BLE Max transmission distance: 50m in open area
	Start-up Time	≤1s
	Output Rate	0.2~20Hz
	Built-in Battery	3.7V, 9600 mAh
	Battery Life	Three months (Work 8 hours a day) Auto sleep when the unit is disconnected
	Charging	Type-C port, 5V/2A Charging time 6.5 hours
	Operating Temperature	-20°C~+60°C
	Dimensions	138mm * 69mm * 53mm
	Weight	Device: ≤520g Base: ≤400g
Pitch & Roll Parameters	Measuring Range	X:±180° Y:±90°
	Inclination Accuracy	0.2°
	Resolution	0.0055°
Heading Accuracy	Measuring Range	Z:±180°
	Heading Accuracy	1°
	Resolution	0.0055°
Accelerometer	Measuring Range	±16g
	Resolution	0.0005(g/LSB)
	RMS Noise	0.75~1mg
	Static Zero Drift	±20~40mg
	Temperature Drift	±0.15mg/°C



Gyroscope Parameters	Measuring Range	±2000(°/s)
	Resolution	0.061(°/s)/LSB
	RMS Noise	0.028~0.07(°/s)
	Static Zero Drift	±0.5~1(°/s)
	Temperature Drift	±0.005~0.015(°/s)
Magnetometer Parameters	Measuring Range	±2Gauss
	Resolution	0.0667mGauss/LSB

Manufacturers may update parameters at any time, please refer to the latest product information.