

Attitude angle detector gyro unit **AAU-11**



○ Description

- AAU-11 is an attitude angle arithmetic unit that can output attitude angle
- Calculating roll/pitch angle with high accuracy
- Performances can be improved with velocity input
- By applying MEMS technology, AAU-11 is smaller, tougher, and less expensive than Angle Arithmetic Unit using RLGs or FOGs

○ Application

Train, Automotive and
Machine monitoring

Maritime guidance and
monitoring

UAV

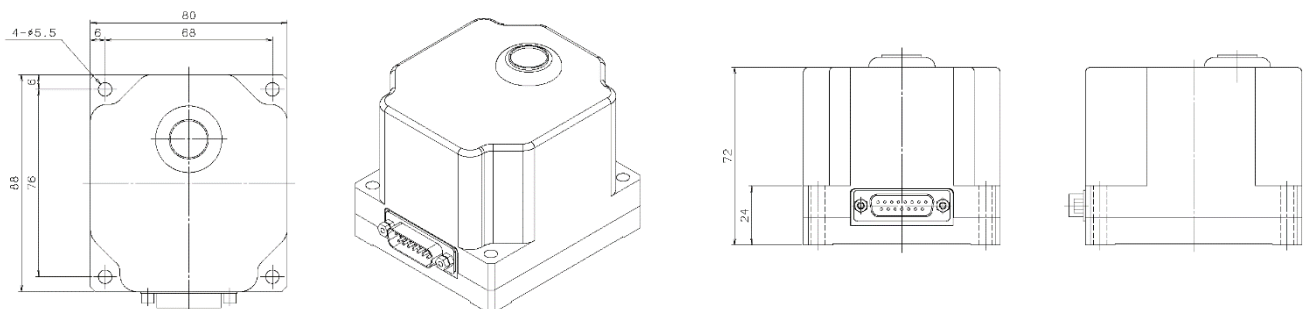
Precision agriculture

Etc.

Technical Data

	Item	Value
Mechanical Characteristics	Size [mm]	88×80
	Weight [gram]	<700 (TBD)
	Electrical interface	D-Sub15
Electrical Characteristics	Power supply [V]	7.5~30(Typ.12)
	Power consumption [W]	<1.5
Operating Conditions	Temperature range (operation/storage) [°C]	-25~85
	Temperature range (performance) [°C]	-10~70
	Humidity environment [%RH] (No condensation)	<85
	Vibration · Shock	IEC 61373
Communication specification	Communication protocol	CAN/RS422 (Switchable)
	Data output cycle [Hz]	200/100* (Switchable)
	CAN baud rate [bbs]	Typ.1,000,000
	RS422 baud rate [bps]	Typ.460,800
	Speed pulse input format	RS422
Measuring range	Roll [°]	<±180
	Pitch [°]	<±90
	Yaw [°]	<±180
Static angular accuracy	Roll [°rms]	<±0.1
	Pitch [°rms]	<±0.1
	Yaw [°rms]	Reference output
Dynamic angular accuracy	Roll [°]	<0.5
	Pitch [°]	<0.5
	Yaw [°]	Reference output
Angular velocity	Measuring range [°/S] (Roll/Pitch/Yaw)	±200
	Scale Factor Error [ppm] (Roll/Pitch/Yaw)	<±500
	Bias [°/h rms] (X/Y/Z)	<±20
Acceleration	Measuring range [g] (X/Y/Z)	±10
	Scale Factor Error [ppm] (X/Y/Z)	<±500
	Bias [mg] (X/Y/Z)	±1.5

* When the output frequency is 100Hz, the noise performance of the gyro output will deteriorate (The angle output accuracy is not affected)



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Specification subject to change without notice. Issue Sep./2023