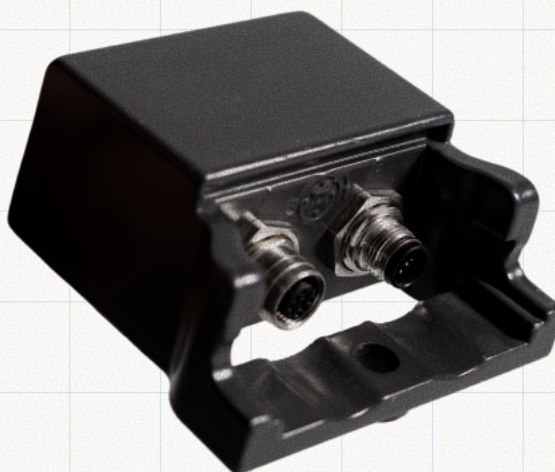


Z-ZS-G-Z-ZD-IP6K9K

Inertial
Measurement Unit

IMU 2.1



FEATURES

High-accuracy positioning
data

Built-in strain relief of
connectors

3-axis accelerometer

CAN communication

Easy to install

3-axis gyroscope

Designed for harsh
conditions

Continuously self-
calibrating

3-axis magnetometer

High accuracy equipment positioning

CPAC Systems' IMU 2.1 combines high-accuracy 3-axis accelerometer, gyroscope, and magnetometer to provide exceptional positioning data for any on-road and off-road equipment. The IMU is put through an extensive calibration procedure which ensures the sensor's accuracy in static and dynamic conditions in the full temperatures range. Each sensor is continuously self-calibrating through refined software to guarantee performance over time.

The IMU 2.1 is a versatile sensor suitable for applications in, for example, machine control, machine guidance and load weighing. It has been tested and proven in a wide range of industrial machines operating in challenging conditions.

Inertial measurement unit

General specifications

Physical

DIMENSIONS (W × D × H)	112 x 87 x 44,5 mm
WEIGHT	420 g
MATERIAL	Aluminum
COLOR	Grey (Y-400-4)

Enviromental

OPERATING TEMPERATURE	-40°C ≤ T ≤ 85°C
STORAGE TEMPERATURE	-40°C ≤ T ≤ 85°C
DEGREE OF PROTECTION	IP6K9K ISO 20653
EMC	EN 13309:2003, ISO 13766

Connections

FEMALE CONNECTOR	Molex 120084-5179
MALE CONNECTOR	Molex 120084-5181
CABLE KIT	120080-8065
BUS TERMINATOR	120085-5014

Functional

SUPPLY VOLTAGE	12 and 24 VDC
CURRENT CONSUMPTION	72 mA / 37 mA
MAX CONSUMPTION	1 W

Regulations and standards

Road vehicles

ISO 16750-1
ISO 16750-2:2010
ISO 16750-3:2007
ISO 16750-4:2010
ISO 16750-5:2010

EMC

ISO13766
EN13309:2003

UN ECE R10 Ready

3s in 3s

3-axis gyroscope

RANGE	± 200°/s
RESOLUTION	0.008°/s/digit
NON-LINEARITY	0.25% F.S.
NOISE	0.008°/s/√Hz
TEMPERATURE DEP.	± 0.02%/°C

3-axis accelerometer

RANGE	± 5 gauss
SENSITIVITY	5400 LSB/g
NON-LINEARITY	± 1 mg
NOISE	37 mg/√Hz
TEMPERATURE DEP.	± 0.3 %/°C

3-axis magnetometer

RANGE	± 1.5 g or ± 16 g
RESOLUTION	5400 LSB/g
NON-LINEARITY	± 1 mg
NOISE	37 mg/√Hz
TEMPERATURE DEP.	± 0.3 %/°C