

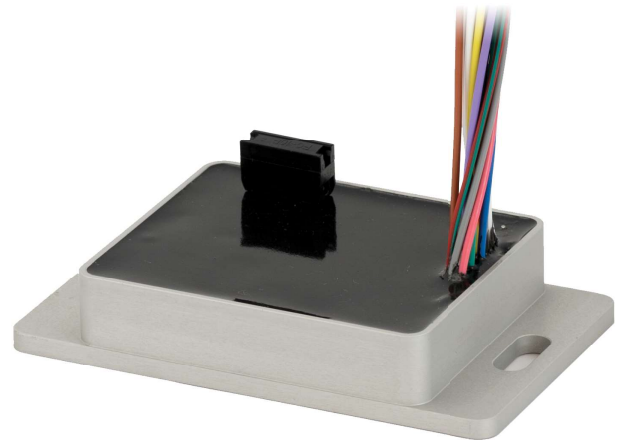
SMC IMU-028 OEM

Motion Sensor



The IMU-028 Motion Sensor is an OEM sensor for integration into marine third party systems. Its compact dimensions, low weight make it an ideal product to integrate directly inside space restrictive product casings.

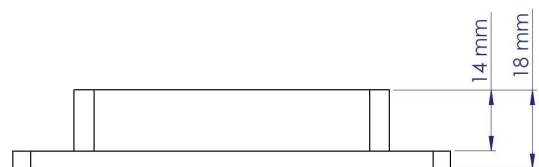
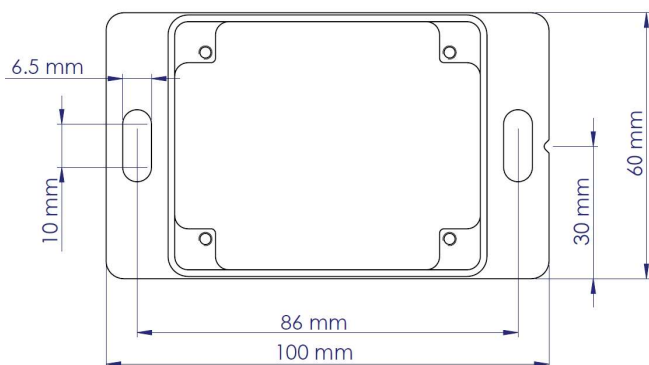
Standard and Custom communication protocols mean that the IMU-028 can be used in a wide variety of marine applications while providing the accurate motion measurement data in dynamic environments.



The SMC IMU-028 uses solid state gyros and accelerometers to provide real time motion measurements with accurate dynamic accuracy even during accelerations. RS232 or RS422 & RS232 outputs with RS232 velocity and heading inputs for aiding purposes. The lightweight aluminium design, construction and assembly produce an IMU with a high reliability in the most demanding marine environment.

Every SMC IMU is individually calibrated and tested for roll/pitch and heave as well as all directions of acceleration, inside a calibration machine with a controlled temperature environment between 0 and +55 degrees Celsius.

The SMC IMU is supplied with windows based software for ease of set up and configuration. The configuration software enables the user to configure the IMU parameters for the installation.



Technical Specifications	IMU-027	IMU-028
Roll / Pitch	Yes	Yes
Accelerations X, Y, Z	Yes	Yes
Heave	N/A	Yes
Performance		
Angle Accuracy static	0.2° RMS	0.2° RMS
Angle Accuracy Dynamic @ ±5° simultaneous roll and pitch	0.25° RMS	0.25° RMS
Resolution Angle	0.001°	0.001°
Resolution Heave	N/A	0.01m
Angle range Roll/Pitch	± 30°	± 30°
Heave range	N/A	±10m
Heave Accuracy	N/A	5cm or 5%
Acceleration accuracy	0.05 m/s ² RMS	0.05 m/s ² RMS
Communications		
IMU Configuration Software	The IMU is shipped with SMC configuration windows software allowing on site setup	
Output Signal Protocol	Multiple, user selectable Output Protocols ASCII NMEA and Binary	
Communications Interface	Output RS422, RS232 and Ethernet 1 x RS232, 1x RS422 External inputs Velocity input formats RMC, RMA, VTG, VBV, VHW; Heading input formats HDT, HDG	
Physical		
Dimensions for IMU OEM (W x D x H)	60 x 100 x 18 mm	
Weight	~0.2 kg	
Housing Material	Anodized Aluminium	
Environmental		
Temperature (absolute max)	0° to +55° Celsius (-10° to +65°); Storage Temperature -40° to +65° Celsius	
Mounting Orientation	Horizontal mounting	
Power requirements	12 - 30 VDC; 2 W	
MTBF (computed)	50 000 hours	
Depth rating	IP50	
Standard	Complies with the IEC 60945	
Warranty & Support		
Warranty	2-year Limited Hardware & Software Warranty	
Support	Free Technical & Hardware support	
Bundled Delivery		
Junction Box	The IMU-02x Motion sensor is delivered without transit case, connector and junction box	

