

DIGITAL MAGNETIC COMPASS

FEATURES

- Heading Accuracy: $\pm 1^\circ$
- Roll and Pitch Accuracy: $\pm 0.5^\circ$
- Output Rate: 1 / 10 / 20 Hz
- Low Power Consumption
- Compact and Easy to Use
- Hard Iron and Soft Iron Calibration
- RS232 or RS485 Interfaces

APPLICATIONS

- Unmanned vehicle navigation
- Robot navigation
- Marine navigation
- Antenna orientation
- Surveying

DESCRIPTION

GALILEO family includes reliable, low power and compact digital magnetic compass DMC300. The device measures magnetic heading with high accuracy, and is suitable for land and marine applications.

GLO-DMC300 comprises of triaxial solid state MEMS accelerometer and magnetometer. Accelerometer is used to measure the roll and pitch in static conditions and magnetometer is used for estimation of heading. The roll and pitch measurements are used for tilt compensation of heading angle. The GLO-DMC300 runs a proprietary digital filter for noise reduction and computation of heading information even under dynamic conditions.

GLO-DMC300 is a plug-and-play device with configurable update rates and RS232 and RS485 interfaces. GLO-DMC300 is most suited for compassing, surveying, antenna orientation and other direction sensing applications.

GALILEO DMC300



TECHNICAL SPECIFICATIONS

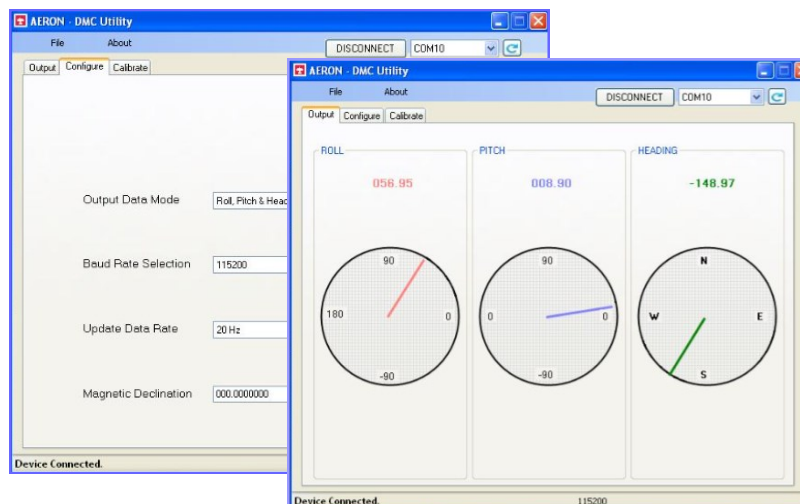
Parameter Name	Parameter Values	
	GALILEO	
	DMC300	
HEADING		
Accuracy ^{1,2,3}	±1° (1σ)	
Resolution	0.01°	
Range	±180°	
Magnetometer Range	±2 gauss	
ROLL & PITCH		
Range	±180° (Roll) ±60° (Pitch) ⁴	
Accuracy ¹	±0.5 (1σ)	
Resolution	0.01°	
OUTPUT RATE ⁵	1 Hz / 10 Hz / 20 Hz	
INTERFACES		
Protocol	RS232 ASCII or RS485 ASCII or RS485 MODBUS	
Baud Rate	9600 (default), 19200, 38400, 57600, 115200	
ELECTRICAL		
Power Supply	+9 to +28 V DC	
Current Consumption	< 150 mA @ 12 V DC	
MECHANICAL		
Dimension	106.7 (L) x 47.6 (W) x 27.5 (H) mm	
Weight	180 gms	
ENVIRONMENTAL		
Operating Temperature	-10 °C to +70 °C	
Humidity	0 - 95 %	
Sealing	IP60	

- 1 : In static and semi-static conditions
- 2 : Accuracy valid within latitudes of ±60°
- 3 : Roll/Pitch < 45°
- 4 : Full Accuracy Range
- 5 : Configurable

DESKTOP APPLICATION

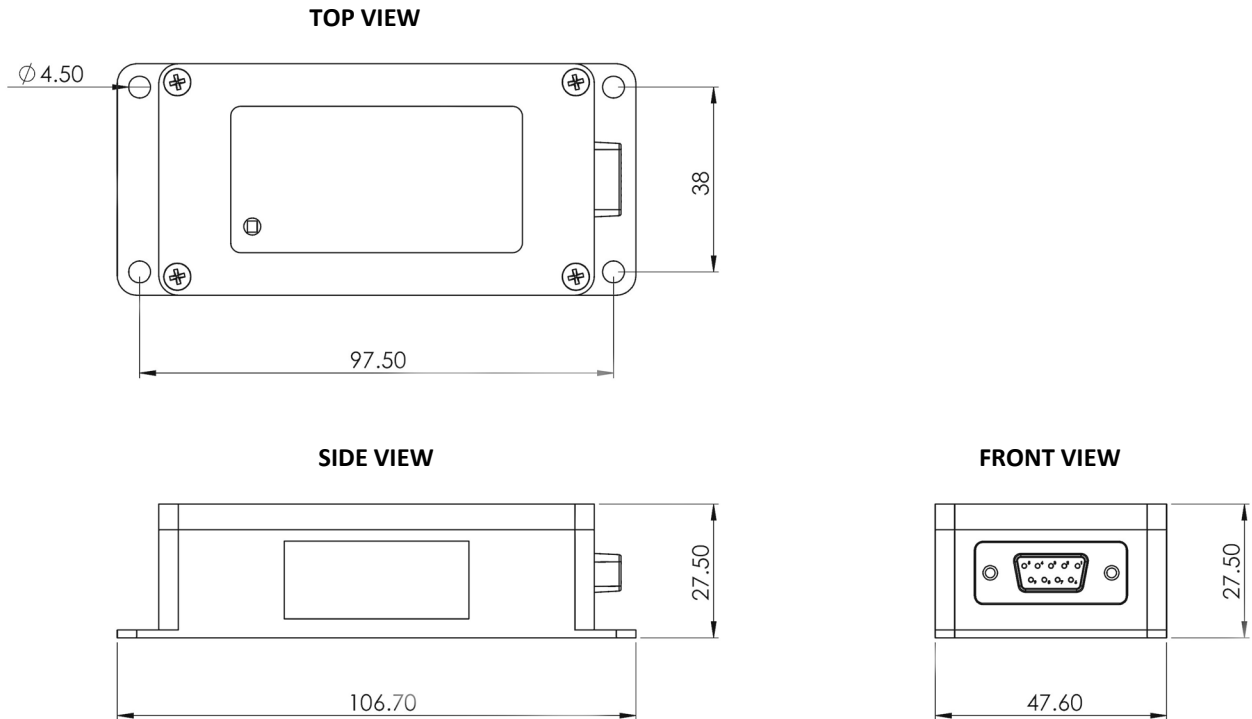
DMC300 comes with a desktop software suite, for configuration, data display and data logging.

Note: These images of the software suite are for reference.



MECHANICAL DIMENSIONS

All dimensions in mm



ORDERING INFORMATION

GLO - DMC300 - X

- 01 - RS232 ASCII (Product Code: 13001)
- 02 - RS485 ASCII (Product Code: 13002)
- 03 - RS485 MODBUS (Product Code: 13003)