

# DGC01 - Dual GNSS Compass

## Overview



DGC01 (Dual GNSS Compass) provides accurate heading estimation, under both static and dynamic conditions with no reliance placed on magnetic sensors. Moreover, it can be also used as GNSS redundant on VECTOR autopilot.

It implements GNSS interferometry techniques which uses raw pseudo-range and carrier phase measurements from two separate inertial GNSS receivers with a known baseline.

The DGC01 is complementary or back-up to an external magnetometer, and it is a strategic element for operations in high electromagnetic disturbances environment.

The DGC01 installation kit includes also two Multiband, high precision GNSS antennas and connectors necessary for onboard installation.

Some remarkable features of the DGC01:

- ✓ High Heading Accuracy: up to 0.3 degrees in both static and dynamic conditions (depending on baseline length).
- ✓ High Latitudes Applications: heading estimation is not dependant on the Earth's magnetic field.
- ✓ Easy to integrate with VECTOR through asynchronous RS-232 or 422.
- ✓ It can be used as a standalone device.
- ✓ IP66 Design: Ready to operate in extreme environments.
- ✓ Alternative to magnetometer when compass calibration cannot be carried out.
- ✓ It works also as GNSS redundant in VECTOR.

## Technical Specifications

ACCURACY		ELECTRICAL	
Heading	0.3°	Power supply	9 - 36 V
I/O		Power consumption	2.4 W (12V)
Serial Communication	RS-232, RS-422, 115200 bps	GNSS	
MECHANICAL / ENVIRONMENT		Multi-constellation capability	GPS, GLONASS, Galileo, BeiDou, QZSS
Size (mm, L x W x H)	102 x 43 x 22 (mm)	Antenna	Multiband Active
Weight	85 g	Antenna connector	50 Ohm SMA Female (x2)
Temperature range	-40°C to +85°C	Operational limits	4 g, 50 000 m Altitude, 500 m/s Velocity
Mating connector	6 pin Binder	Update rate	10 Hz

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