Features	Revolution	Revolution 2X	Revolution LP	Revolution GS
High Static Accuracy	Heading within 0.5° or better	Heading within 0.5° or better	Heading within 0.5° or better	Heading within 0.5° or better
	Tilt within 0.2° or better	Tilt within 0.2° or better	Tilt within 0.2° or better	Tilt within 0.2° or better
High Dynamic Accuracy	N/A	N/A	N/A	Heading within 3° typical for rates <150°/sec
	N/A	N/A	N/A	Pitch and roll within 1° for rates <150°/sec
Wide Operating Range	±40° Pitch and Roll	±40° Pitch and Roll	±40° Pitch and Roll, ±60° avail.	±40° Pitch and Roll
	±80° Dip angle range	±80° Dip angle range	±80° Dip angle range	±80° Dip angle range
	Temperature -20° to 70°C	Temperature -20° to 70°C	Temperature -20° to 70°C	Temperature -25° to 85°C
	Local Hard Iron to ±1 Gauss	Local Hard Iron to ±1 Gauss	Local Hard Iron to ±1 Gauss	Local Hard Iron to ±1 Gauss
Fast Response	14 readings per second	28 readings per second	14 readings per second	28 readings per second
	Wake from standby in 75 msec	Wake from standby in 75 msec	Wake from standby in 75 msec	Wake from standby in 40 msec
Single Supply Operation	6 to 30V unregulated DC or	6 to 30V unregulated DC or	6 to 30V unregulated DC or	6 to 30V unregulated DC or
	5V regulated DC	5V regulated DC	5V regulated DC	5V regulated DC
				Thermal overload and polarity protection
Low Power	15 mA operating	20 mA operating	15 mA operating	45 mA operating
	5 mA sample	5 mA sample	5 mA sample	15 mA sample
	1 mA standby	1 mA standby	50 µA standby	5 mA standby
Wide Selection of Output data	Heading, pitch, and roll	Heading, pitch, and roll	Heading, pitch, and roll	Heading, pitch, and roll
	Magnetometer X, Y, and Z	Magnetometer X, Y, and Z	Magnetometer X, Y, and Z	Magnetometer X, Y, and Z
	Dip angle	Dip angle	Dip angle	Temperature, input voltage, and dip angle
	Total, horizontal, and vertical mag field strength	Total, horizontal, and vertical mag field strength	Total, horizontal, and vertical mag field strength	Output ASCII or Binary
	Horizontal X and Y magnetic field strength	Horizontal X and Y magnetic field strength	Horizontal X and Y magnetic field strength	Horizontal X and Y magnetic field strength
				Raw and conditioned gyro data
Choice of Interface	Full-duplex RS-232	Full-duplex RS-232	Full-duplex RS-232	Full duplex RS232 for external RJ12
	Full-duplex RS-485	Full-duplex RS-485	TTL	RS-232 or full-duplex RS-485 for internal connector
In-System Configuration and Test	Laptop can be connected while unit operates in situ	Laptop can be connected while unit operates in situ	Laptop can be connected while unit operates in situ	Laptop can be connected while unit operates in situ
	Perform hard and soft iron calibration	Perform hard and soft iron calibration	Perform hard and soft iron calibration	Perform hard and soft iron calibration
	Monitor outputs and change user-definable settings	Monitor outputs and change user-definable settings	Monitor outputs and change user-definable settings	Monitor outputs and change user-definable settings

Heading Performance	Revolution	Revolution 2X	Revolution LP	Revolution GS
Static Accuracy	± 0.5° rms	± 0.5° rms	± 0.5° rms	± 0.5° rms
Dynamic Accuracy				± 3° rms for tilt rates <150°/sec
Repeatability	± 0.2°	± 0.3°	± 0.2°	± 0.3°
Response time	75 msec	36 msec	75 msec	36 msec
Dip Angle Range	± 80°	± 80°	± 80°	± 80°
Update rate	14 per second	28 per second	14 per second	28 per second
Pitch and Roll Performance				
Accuracy	± 0.2°	± 0.2°	± 0.2°	± 0.2°
Repeatability	± 0.15°	± 0.15°	± 0.15°	± 0.2°
Range	± 40°	± 40°	±40°, ±60° available	± 40°
Settling time	0.5 sec	0.5 sec	0.5 sec	0.1 sec
Electrical				
Supply Current	15 mA operating, 5mA sample, 1 mA standby	20 mA operating, 5 mA sample, 1 mA standby	15 mA operating, 5 mA sample, 50 µA standby	45 mA operating, 15 mA sample, 5 mA standby
Supply Voltage (V_{DD})	6 - 30 Vdc unregulated	6 - 30 Vdc unregulated	6 - 30 Vdc unregulated	6 - 30 Vdc unregulated
	5.0 Vdc regulated	5.0 Vdc regulated	5.0 Vdc regulated	5.0 Vdc regulated
Environmental				
Operating Temp	-20 to 70 °C	-20 to 70 °C	-20 to 70 °C	-25 to 85 °C
Storage Temperature	-40 to 125 °C	-40 to 125 °C	-40 to 125 °C	-50 to 150 °C
Humidity	0 to 90%	0 to 90%	0 to 90%	0 to 90%
Mechanical				
Box	Hammond Mfg1591MFL	Hammond Mfg1591MFL	Hammond Mfg1591LFL	Hammond Mfg1591MFL
PCB Size	1.6"W x 3.0"L x 0.6"H	1.6"W x 3.0"L x 0.6"H	1.6"W x 3.0"L x 0.6"H (0.8"H w/taller tilt sensor)	1.8"W x 3.0"L x 0.6"H
PCB Mounting	4 #4 screws, 1.4" x 2.2" spacing	4 #4 screws, 1.4" x 2.2" spacing	4 #4 screws, 1.4" x 2.2" spacing	4 #4 screws, 1.4" x 2.6" spacing
Weight	3 oz. in box	3 oz. in box	3 oz. in box	4 oz. in box
Connectors	8 pin, single-row, 0.1" friction header	8 pin, single-row, 0.1" friction header	8 pin, single-row, 0.1" friction header	8 pin, single-row, 0.1" friction header
	6 pin RJ12 modular jack	6 pin RJ12 modular jack	6 pin RJ12 modular jack	6 pin RJ12 modular jack
Interface				
Signal type	RS232 or RS485	RS232 or RS485	RS232 or TTL	RS232 or RS485
Baud rate	2400, 4800, 9600, or 19200 bps	2400, 4800, 9600, 19200, or 38400 bps	2400, 4800, 9600, or 19200 bps	2400, 4800, 9600, 19200, 38400, or 57600 bps
Character Format	8 data, no parity, 1 stop	8 data, no parity, 1 stop	8 data, no parity, 1 stop	8 data, no parity, 1 stop
Input Buffer Size	90 characters	90 characters	90 characters	110 characters
Output Buffer Size	110 characters	110 characters	110 characters	110 characters
Output Format	NMEA 0183	NMEA 0183	NMEA 0183	NMEA 0183 and binary
Output Data Rate	1 to 1200 sentences per minute	1 to 2400 sentences per minute	1 to 1200 sentences per minute	1 to 1650 sentences per minute
Operating Modes	Continuous or sample	Continuous or sample	Continuous or sample	Continuous or sample
Angle Units	Degrees, mils, radians, 16-bit integer	Degrees, mils, radians, 16-bit integer	Degrees, mils, radians, 16-bit integer	Degrees, mils, radians, 16-bit integer