

## SENSYS FGM3D Technical Specification Matrix

Parameters	Standard version							Calibration version	Submersible version
	FGM3D/4	FGM3D/75	FGM3D/100	FGM3D/125	FGM3D/250	FGM3D/500	FGM3D/1000	FGM3D/125-C3T	FGM3D UW
Measurement range	±4,000 nT	±75,000 nT	±100,000 nT	±125,000 nT	±250,000 nT	±500,000 nT	±1,000,000 nT	± 125,000 nT	See standard version
Point of reference single axes	See figure 1 next page (14.5/34.5/54.5mm from edge)							See figure 2 next page (14.5/34.5/54.5mm from edge)	See figure 3 next page (34/54/74mm from edge)
Point of reference total intensity	34.5 mm from edge								54mm from edge
Declination between axes	≤ ±0.5°								
Declination total	≤ ±1°								
Resolution	< 150 pT								
Noise [0.1 ... 10 Hz]	< 15 pT <sub>rms</sub> /√Hz @0.1...10Hz								
Cut off frequency (bandwidth)	2 kHz (DC...2 kHz)								
Temperature drift	≤ ± 0.3 nT/K								
Zero error	≤ ±5 nT								
Relative error of measurement	±0.1 %				±0.5 %			±0.1 %	See standard version
Stability	< 5 nT								
Linearity	< 20 ppm								
Sensitivity	2.5 V/μT	0.13 ... V/μT	0.1 V/μT	0.08V/μT	0.04V/μT	0.02V/μT	0.01V/μT	0.08 V/μT	See standard version
Additional winding (compensation)	n.a.							6.3 mA / 70 μT (max. 10mA) incl. calibration protocol	n.a.
Calibration jump	n.a.							-10 μT (per axis)	n.a.
Supply voltage	±12 V ... ±15 V								
Current consumption	±26 mA							max. ±40 mA; typ. ±30 mA	See standard version
Output	±10 V @FS								
Output impedance	< 1 Ω								
Operating temperature	-20 °C to +75 °C								
Storage temperature	-40 °C to +80 °C								
Dimensions	rectangular, 26mm x 26mm x 149mm								cylindrical, Ø45mm x 263mm
Weight without cable	112g							130g	470g
Ingress protection	IP65								IP68K down to 100m
Vibration stability	BV044 (in parts)								
<b>Options</b>									
Low noise / improved resolution	≤ 8 pT <sub>rms</sub> /√Hz / < 70 pT				n.a.			≤ 8 pT <sub>rms</sub> /√Hz / < 70 pT	See standard version
Improved orthogonality	Declination between axes: ≤ ±0.1° / declination total: ≤ ±0.12°								
Extended bandwidth	n.a.	3 kHz / 4 kHz			n.a.			n.a.	See standard version
Customized housing	Possible features: square, cylindrical, additional mounting points, specific material, color, etc.								Dependent on required depth rating

(version 1.02)

# SENSYS FGM3D Diagram and Pin Layout Matrix

	Schematic view of sensor	Connector layout	Pin layout version																																							
Sensor	Side view with dimension, reference edge and centre of sensing elements	Number of pins	Assignment of pins																																							
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