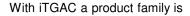


## iTGAC-FOSA

## **Triaxial Sensor Cube** with Fiber Optical Gyros and Servo Accelerometers

For several years iMAR has been producing

highly precise inertial measurement systems, featuring fiber-optical gyros, mechanical gyros or ring laser gyros in strap-down technique. Due to an intensive data processing by powerful process computers and the use of well-selected sensors these systems achieve outstanding results concerning bandwidth and shock resistance as well as a highly flexible systems configuration.



## Technical Data of iTGAC-FOSA:

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provided for dynamically motion analysis that covers applications which require a medium accuracy and a simple using. iTGAC-FOSA is a triaxial gyro cube with three orthogonal mounted rugged fiber optical gyroscopes and three servo-accelerometers with analog output. The iTGAC-FOSA will be delivered with a calibration sheet containing the polynomial coefficients for a user-operated external correction at room temperatue for industrial applications like camera stabilisation, machine guidance or automotive testing ...

Triaxial Gyro and Accelerometer Cube ( $\omega_x$ , $\omega_y$ , $\omega_z$ , $a_x$ , $a_y$ , $a_z$ ):						
	Range:	$\pm$ 200 deg/s (50 to 800 deg/s optional)		±20 g (225 g optional)		
	Bias:	< 50 μV	(const. temp.)	1 mg (const. temp.)		
		< 500 µV @ 5V range	(stability OTR)	approx. 0.6 mg/K (approx. 60 mg OTR)		
	Resolution:	< 25 μV		0.1 mg		
	Scale factor:	40 deg/s/V (other as option)		0.5 g/V (other as option)		
	Scale factor error:	5 %	(OTR)	0.05 % / K		
	Linearity error:	< 3 % (uncompensated)		0.3 %		
		< 0.2 % (ext. polynomial of	correction by user)	< 0.3 %		
	Output:	± 10 V		± 10 V		
		Option: Output scaled to :	±10 V, ±5 V or cust	omized		
	g-sensitivity:	none	_	_		
	Noise (0-100 Hz): $< 0.15 \text{ deg}/\sqrt{h}$ (9 deg/h/ $\sqrt{Hz}$ )			< 50 μg/√Hz		
	Bandwidth:	0200 Hz (optional up to	300 Hz)	50 Hz		
Power:		1034 V DC, < 8 W				
Connector:		25 pin SUB-D (male)				
Temperature: -4		-40+70 ℃ (case temperature)				
Shock:		90 g, 6 ms (gyro)		50 g, 11 ms (accelerometer)		
Weight:		< 900 grams (light weight version on request)				
	Size:	80x80x108 mm				

Please ask also for our systems with digital output (iVRU-FAS, iNAV-FMS).

iMAR GmbH • Im Reihersbruch 3 • D-66386 St. Ingbert / Germany Phone: +49-(0)-6894-9657-0 • Fax: +49-(0)-6894-9657-22 http://www.imar-navigation.de • sales@imar-navigation.de