

# FIBER OPTIC GYROSCOPE VG910F1

DATASHEET

model 2012	95 000 h MTBF 18g rms 450g shocks	Super reliable. 10 year MTBF. The first FOG qualified for advanced civilian aircraft. Mass production.
series 1990	0.7 Watt 45ms ON Single-ended	Extra robust design. High stability and reliability. Exceptional performance in harsh mechanical and temperature environments. Quick start-up.
technology 1990	Open-loop 40μ fiber Jointless	100m of unique 40μ optical fiber. Specific 0.8μ SLD chip. Fizoptika spliceless assembling with ZERO excess loss. Advanced analog electronics with built-in bias calibration. Unrivalled performance and reliability.
fundamentally 1914	FREE of	bias jumps g, g <sup>2</sup> errors dead zones cross axis errors day-to-day bias errors



1"

	Unit	Value	Comments
<b>MAIN PARAMETERS</b>			
Input range	deg/s	350	For info
Scale factor (SF)	mV/deg/s	7	Tolerance 15%, -0.05% /°C
Frequency range	kHz	0...1	3 <sup>rd</sup> order LPF
Angle random walk (ARW)	deg/√h	0.02	White noise PSD
Bias stability, RMS	deg/h	1	Min of Allan variance
Bias repeatability, RMS	deg/h	1	day-to-day, 5 min warm-up
SF stability, RMS	%	0.003	5 min warm-up
SF repeatability, RMS	%	0.01	day-to-day, 5 min warm-up
Start-up time	ms	< 50	90% of SF
Power	Vdc	+5	+/- 0.2V, 0.1A
<b>PHYSICAL PARAMETERS</b>			
Dimensions	mm	82 x 82 x 20	ISO 2768-m tolerance
Dissipation	W	0.5	Varies with temperature
Weight	gram	155	Approx.
Volume	cl	10	
Housing material		aluminum alloy	anodizing
Ingress protection class		IP67	
<b>ENVIRONMENT</b>			
Operating temperature	°C	-40...+70	built-in sensor TMP-36
Endurance temperature	°C	-55...+85	ambient, nonoperating, < 2 h
Vibration, RMS	g	18	20 Hz... 2000 Hz
Shocks	g	450	3 ms half-sine
<b>RELIABILITY</b>			
MTBF	h	95 000	Humidity conditions applied
Lifetime	yr	15	

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18/12/2018