

# FIBER OPTIC GYROSCOPE VG103E

## SPECIFICATION

POWER REQUIREMENTS			
Voltage (single supply)	V	+4.75 to 5.25	regulated
Supply Current	A	0.15	min
PERFORMANCE			
Input range	°/s	350	for info
Scale factor (SF)	mV/°/s	6.5	±15%
Bandwidth	kHz	1	2 <sup>nd</sup> order LPF
Angular Random Walk (ARW)	°/√h	0.02	
Output Noise PSD	μV/√Hz	2	
Bias, RMS	°/h	1	Allan variance min
Bias Offset	mV	<0.1	typical
Bias OTR	μV/°C	±1	for info
SF, RMS	%	0.02	In run, day-to-day
SF OTR	%/°C	-0.03	typical
Start-up	s	<0.03	90% of SF
Dissipation	W	0.5	@ 20°C (typical)
ELECTRICAL INTERFACE			
Output voltage	V	±2	
Output Impedance	kOhm	1	
PHYSICAL PARAMETERS			
Dimensions	mm	63 x 63 x 22	ISO 2768-m tolerance
Weight	gram	60	approx.
Volume	cl	7	
Housing material		plastic	
Ingress protection class		IP67	
ENVIRONMENT			
Temperature (operating)	°C	-40...+70	built-in sensor
Temperature (endurance)	°C	-55...+85	2 h min, non-operating
Vibration, RMS (endurance)	g	12	20 Hz... 2000 Hz
Output Noise on vibration	μV/g·Hz	1	typical (0.1-1kHz), @NTE 0.2 g <sup>2</sup> /Hz
Acceleration (operational)	g	20	
Shocks	g	350	1 ms half-sine
Magnetic response	°/h/Gauss	2	typical (X axis)
RELIABILITY			
MTBF	h	70 000	humidity conditions applied
Lifetime	yr	10	humidity conditions applied
Temperature sensor TMP36			
Scale Factor	mV/°C	10	
Output Voltage	mV	750	@25°C