

FIBER OPTIC GYROSCOPE VG103SD

SPECIFICATION

POWER REQUIREMENTS			
Voltage (single supply)	V	+4.75 to 5.25	regulated
Supply Current	A	0.15	min
PERFORMANCE			
Input range	°/s	450	for info
Scale factor (SF)	mV/°/s	4	±15%
Bandwidth	kHz	1	2 nd order LPF (analog filter)
Angular Random Walk (ARW)	°/√h	0.015	
Output Noise PSD	μV/√Hz	1	
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
Initialization	s	<0.03	
Dissipation	W	0.5	@ 20°C (typical)
ELECTRICAL INTERFACE			
Data rate	kHz	8	24 bit data
Baud rate	kBd	920	RS422, asynchronous
PHYSICAL PARAMETERS			
Dimensions	mm	∅55 x 17	ISO 2768-m tolerance
Weight	gram	40	approx.
Volume	cl	4	
Housing material		hard 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	18	20 Hz... 2000 Hz
Output Noise on vibration	μV/g·Hz	10	typical @NTE 0.2 g ² /Hz
Acceleration (operational)	g	50	
Shocks	g	350	1 ms half-sine
Magnetic response	°/h/Gauss	1.5 (0.03*)	typical (X axis)
			*with optional μ-shield
RELIABILITY			
MTBF	h	100 000	humidity conditions applied
Lifetime	yr	15	humidity conditions applied
Temperature sensor TMP36			
Scale Factor	mV/°C	10	
Output Voltage	mV	750	@25°C