

# FIBER OPTIC GYROSCOPE VG191A

## SPECIFICATION

<b>POWER REQUIREMENTS</b>			
Voltage (single supply)	V	+4.75 to 5.25	regulated
Supply Current	A	0.15	min
<b>PERFORMANCE</b>			
Input range	°/s	250	for info
Scale factor (SF)	mV/°/s	8	±15%
Bandwidth	kHz	1	2 <sup>nd</sup> order LPF
Angular Random Walk (ARW)	°/√h	0.015	
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)
<b>ELECTRICAL INTERFACE</b>			
Output voltage	V	±2	
Output Impedance	kOhm	1	
<b>PHYSICAL PARAMETERS</b>			
Dimensions	mm	∅24 x 40	ISO 2768-m tolerance
Weight	gram	30 (40*)	approx.
Volume	cl	1.8	
Housing material		Al alloy (μ-metal*)	
Ingress protection class		IP67	
<b>ENVIRONMENT</b>			
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 <sup>2</sup> /Hz
Acceleration (operational)	g	50	
Shocks	g	750	1 ms half-sine
Magnetic response	°/h/Gauss	4 (0.1*)	along X axis
<b>RELIABILITY</b>			
MTBF	h	100 000	humidity conditions applied
Lifetime	yr	15	humidity conditions applied
<b>Temperature sensor TMP36</b>			
Scale Factor	mV/°C	10	
Output Voltage	mV	750	@25°C
		*shielded	