VG991(D) provides uncompensated analog and digital (**RS232**, raw data) signals of rotation rate.

VG991D comprises fiber optic sensor, analog and digital electronics in a common housing.

VG991D consumes single +5V power (2W typical).

Environment: Storage at temperatures from -55° C to +75° C, operating at temperatures from -30° C to +70° C;

Under vibration 2g, 20Hz-500Hz and at shocks and acceleration up to 40g.

Physical characteristics: Weight estimated - 300 gram; dimensions - dia 105 mm, height 25 mm without connector and flanges.

MAIN PARAMETERS

Parameter	Units	Value	Conditions, comments
Input range	Deg/sec	150	Expandable on request
Bias variation (1 sigma)	mV	0.01	Steady state, warm-up, day-to-day
Bias vs temperatue	mV	0.1	Uncompensated, over operating temperature range
Scale factor (SF)	MV/deg/sec	20	Nominal value, tolerance 15%
Scale factor variation (1 sigma)	%	0.05	Steady state, warm-up, day-to-day
Scale factor vs temperature	%	-5	over operating temperature range, uncompensated
Noise (PSD)	µV / sqrt Hz	2	Corresponds to data fluctuation at 1 sec sampling

Bandwidth	**Hz**	**450**	**Analog output filter cut-off frequency**
Start-up time	**sec**	**0.1**	**Analog output, 5 sec readiness of digital output, 1 min warm-up (full performance)**
Reliability (MTBF)	**hours**	**20K**	**At normal condition (room temperature)**

OTHER PARAMETERS (info)

Sensitivity to magnetic field	1-3 deg/hr / Gauss	Bias vs supply voltage	1 deg/hr / V
Response to vibration (synchronous in frerquency range)	10 deg/hr / g * Hz	Bias vs temperature gradient	1-3 deg/hr / ° C/min
SF vs supply voltage	0.1% /V	Scale factor nonlinearity	10% at max rate

ELECTRICAL INTERFACE

Power	**+5 VDC regulated from 4.90 to 5.50, Ripple (0…0.1MHz) < 10mV ; Input current - 300 mA…400 mA dependent on temperature, 500 mA max. Load regulation < 0.5% (change of supply voltage for current change within specified range); Transient recovery time < 50 ms.**
Output analog	**Voltage proportional to rotation rate, positive at clockwise rotation, 1kOhm impedance**

VG991D