



Angular Rate Gyro Modules

SAG 1-axis

DAG 2-axis

TAG 3-axis

for

Dynamic Yaw Rate Measurement

CORRSYS-DATRON Angular Rate Gyro Modules provide a complete angular rate measurement solution in a single, compact package.

Utilizing a measurement structure micro-machined in silicon, CORRSYS-DATRON Angular Rate Gyro Modules are robust enough to withstand the punishment of harsh industrial and automotive environments. Measurement signals are generated via a change in the capacitive property of the structure, caused by a change in angular rate and converted into an electrical signal which is amplified, filtered, and voltage-compensated, resulting in a highly accurate and linear measurement.

Features

- Integrated 1-, 2- or 3-axis measurement
- ± 150 degrees/sec dynamic range
- 6 ... 42 V single supply operation
- Temperature range: -40°C ... $+85^{\circ}\text{C}$
- Custom spans, bandwidths available

Applications

- Yaw-rate measurement
- Roll-rate measurement
- Slip-angle correction
- Position & motion sensing



Art. No.:

SAG

16008

DAG

on request

TAG

on request

Angular Rate Gyro Modules

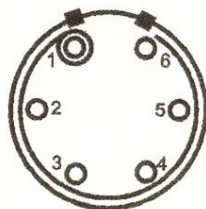
Typical Technical Data

Specifications:

Parameter	Nominal Value	Tolerance
Full Scale Sensitivity	$\pm 150 \text{ }^\circ/\text{s}$; 20 mV/ $^\circ/\text{s}$	$\pm 10\%$ FS
Zero Rate Bias Output	+2.5 V DC	± 100 mV
Full Scale Span	± 2.0 V DC	$\pm 10\%$ FS
Frequency Response	DC to 25 Hz, -3dB	$\pm 20\%$
RMS Equivalent Noise	1 $^\circ/\text{s}$ RMS Gaussian	$\pm 15\%$
Nonlinearity	$\pm 0.2\%$	
Alignment	$\pm 2^\circ$	
Transverse Sensitivity	$\pm 0.2 \text{ }^\circ/\text{s/G}$	
Zero Rate Bias Drift	200 mV max. -40°C to 85°C Span	
Temperature Range	-40°C to 85°C (operating) -65°C to 125°C (storage)	
Supply Voltage	+6 to +42 V DC	
Supply Current	<10 mA per axis (no load)	
Shock	1000 G (powered) 2000 G (unpowered)	
Mass	45 g (SAG)	± 10 g
Packaging	Anodized 6061 Aluminium; Epoxy Potting Shore 85D Hardness	

Additional ranges and corner frequencies available.

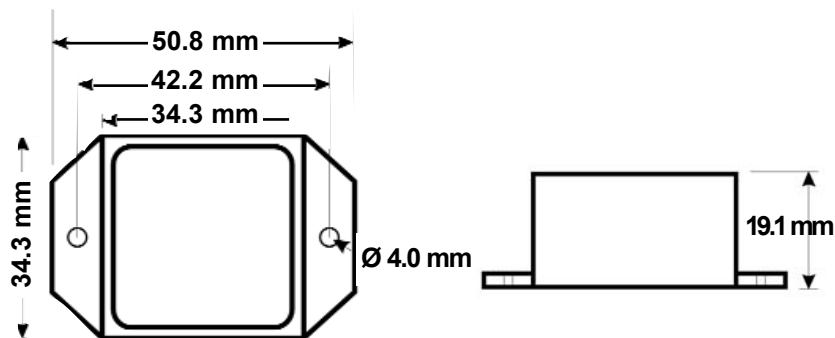
Pin Assignment:



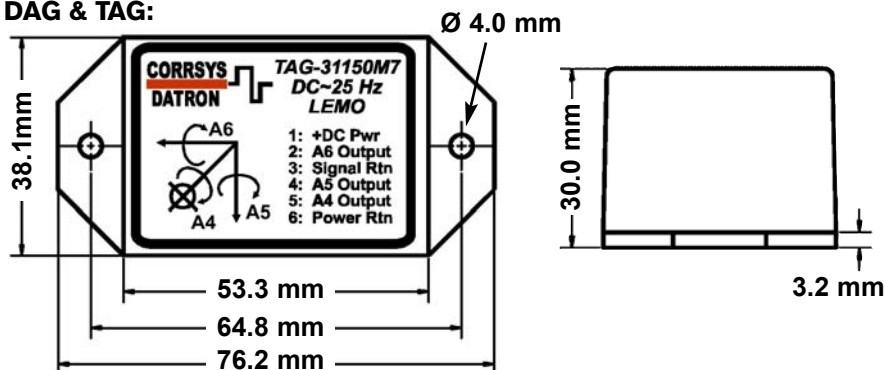
LEMO EGA.1B.306

- 1 DC Power supply
- 2 Output A6 axis (TAG)
- 3 Signal GND
- 4 Output A5 axis (DAG & TAG)
- 5 Output A4 axis
- 6 DC GND

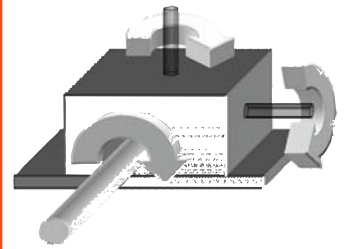
Dimensions SAG:



Dimensions DAG & TAG:



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YawRateModules_d-113-e-rev003 03/10



Attention:

The new CDS Angular Rate Gyro Modules are equipped with a connector that is different from the former +5V Accelerometers (SAG, DAG, TAG) and **cannot be used** with the cables delivered with these +5V sensor types!

In a continuous effort to improve our products, CORRSYS-DATRON reserves the right to change specifications without prior notice.

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