



# 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
- $\pm 150$  degrees/sec dynamic range
- 6 ... 42 V single supply operation
- Temperature range:  $-40^{\circ}\text{C}$  ...  $+85^{\circ}\text{C}$
- Custom spans, bandwidths available

## Applications

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



**Article No.:**

**SAG 16008**

**DAG on request**

**TAG on request**

# Angular Rate Gyro Modules

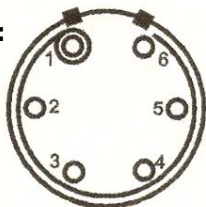
## Typical Technical Data

### Specifications:

Parameter	Nominal Value	Tolerance
Full Scale Sensitivity	$\pm 150$ °/s; 20 mV/°/s	$\pm 10\%$ FS
Zero Rate Bias Output	+2.5 V DC	$\pm 100$ mV
Full Scale Span	$\pm 2.0$ V DC	$\pm 10\%$ FS
Frequency Response	DC to 25 Hz, -3dB	$\pm 20\%$
RMS Equivalent Noise	1 °/s RMS Gaussian	$\pm 15\%$
Nonlinearity	$\pm 0.2\%$	
Alignment	$\pm 2$ °	
Transverse Sensitivity	$\pm 0.2$ °/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)	$\pm 10$ g
Packaging	Anodized 6061 Aluminium; Epoxy Potting Shore 85D Hardness	

Additional ranges and corner frequencies available.

### Pin Assignment:

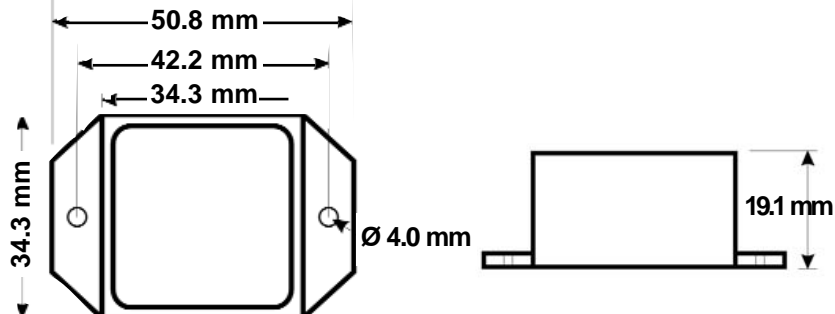


LEMO EGA.1B.306

- 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

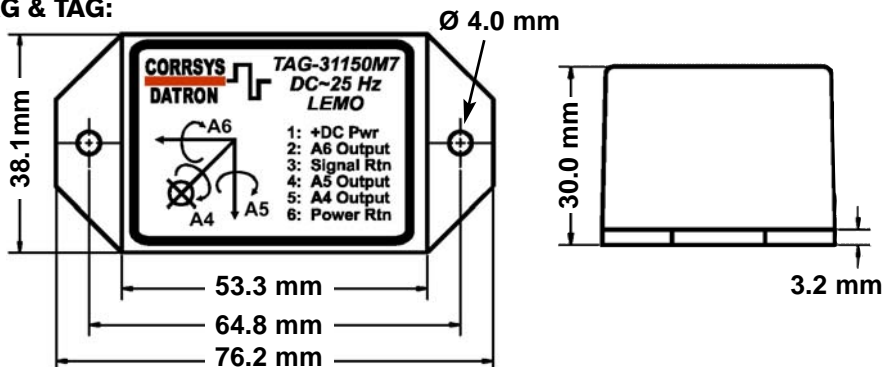
### Dimensions

#### SAG:

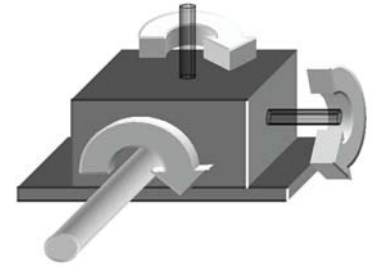


### Dimensions

#### DAG & TAG:



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YawRateModules\_d-113-e-rev001 10/08



### 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.

**CORRSYS-DATRON**  
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