

# 11207AC Angular Rate Gyro Sensor

High Stability, Low Noise  
Vibration Rejecting Rate Gyro  
 $\pm 250, \pm 300, \pm 450^\circ/\text{sec}$   
Interchangeable,  
Rugged Design



## Uniaxial Angular Rate Gyro

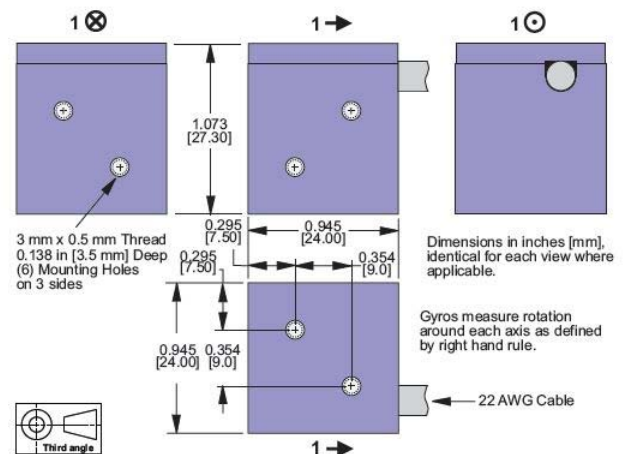
An advanced differential sensor design rejects linear acceleration and vibration influences, making the Measurement-Specialties 11207AC Angular Rate Gyro extremely stable, even in high shock and vibration environments. A tough, compact housing holds potted electronics and a shielded 22 AWG cable. Its cubical form allows mounting with the sensing axis oriented in any direction.

The voltage output of the 11207AC is directly proportional to the rotational rate about its axis. The DC-coupled output is fully scaled, referenced, and temperature compensated. When used in demanding temperature environments, gain compensation makes the 11207AC one of the most accurate angular rate gyros available.

IdentiCal™ Interchangeable Sensors eliminate the management of calibration data and allow convenient interchangeability of individual sensors. With standardized sensitivity and offset, there is no need to enter new parameters for each unit. Perfect for high volume use.



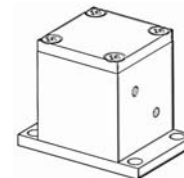
## dimensions



6061-T6 aluminum case with electroless nickel finish plus integrated cable with shield bonded at the case.

## FEATURES

- High Stability and Low Noise
- IdentiCal™ Interchangeable Sensor
- Rugged for Harsh Environments
- High Accuracy and Linearity over Wide Temperature Range
- Small Size
- Robust Power Supply Regulation
- Three Year Warranty

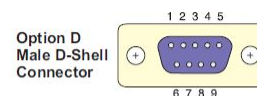


Shown with mounting adapter 34170B (sold separately)

## APPLICATIONS

- Accurate measurement of angular rates
- Monitor rotation rates for safety, maintenance, and usage
- Specialized configurations available

## connections



Pin	1	2	3	4	5	6	7	8	9
Signal Wire	G1+ Green	Signal - Blue	Not Used	Not Used	Not Used	Not Used	Not Used	+Vs Orange	Gnd White

# 11207AC Angular Rate Gyro Sensor

## Specifications for 11207AC – improved specifications available upon request

$T_A = T_{min}$  to  $T_{max}$ ;  $10 \leq V_S \leq 36$  V; Acceleration =  $\pm 1$  g, Angular Rate =  $0^\circ/\text{sec}$  unless otherwise noted; within one year of calibration

PARAMETERS	MIN	TYPICAL	MAX	UNITS	CONDITIONS/NOTES
<b>Range &amp; Sensitivity* at 25 °C</b>					Must specify via Option Rnnn, See Ordering Info
Option R250		9		mV/ $^\circ/\text{sec}$	
Option R300		7.5		mV/ $^\circ/\text{sec}$	
Option R450		5.		mV/ $^\circ/\text{sec}$	
<b>Sensitivity Drift</b> 25°C to $T_{min}$ or $T_{max}$			$\pm 1.0$	% FSR	
<b>Offset at 25 °C</b> Zero g Bias Level		2.500		V	
<b>Offset Drift</b> 25 °C to $T_{min}$ or $T_{max}$		$\pm 1.0$	$\pm 6.0$	$^\circ/\text{sec}$	
<b>Alignment</b>		$\pm 1.5$		degrees	Deviation from ideal axes
<b>g Sensitivity</b>		0.015		$^\circ/\text{sec}/\text{g}$	Affects offset
<b>Nonlinearity</b>		0.01		% FSR	Best fit straight line
<b>Frequency Response</b>	0		1000	Hz	Upper cutoff per Option Bnnn, -3dB pt $\pm 10\%$
<b>Noise Density</b>		0.01		$^\circ/\text{sec}/\sqrt{\text{Hz}}$	$T_A = 25^\circ\text{C}$
<b>Output Voltage Swing</b>	0.25		4.75	V	$I_{out} = 1$ mA, capacitive load <1000 pF
<b>Power Supply (<math>V_S</math>)</b>					
Input Voltage Limits	-80		+80	V	-80V continuous, >38 V if $\leq 550\text{ms}$ , duty <1%
Input Voltage - Operating	+10		+36	V	
Input Current		10	mA		No load, quiescent
Rejection Ratio		>120	dB		DC
<b>Temperature Range (<math>T_A</math>)</b>	-40		+85	$^\circ\text{C}$	
<b>Mass</b>		38		grams	
<b>Shock Survival</b>	-10,000		+10,000	g	Any axis for 0.5ms, powered or unpowered

Data subject to change without notice

\*IndentiCal™ sensors are interchangeable, any with same range have same value

## ordering info

