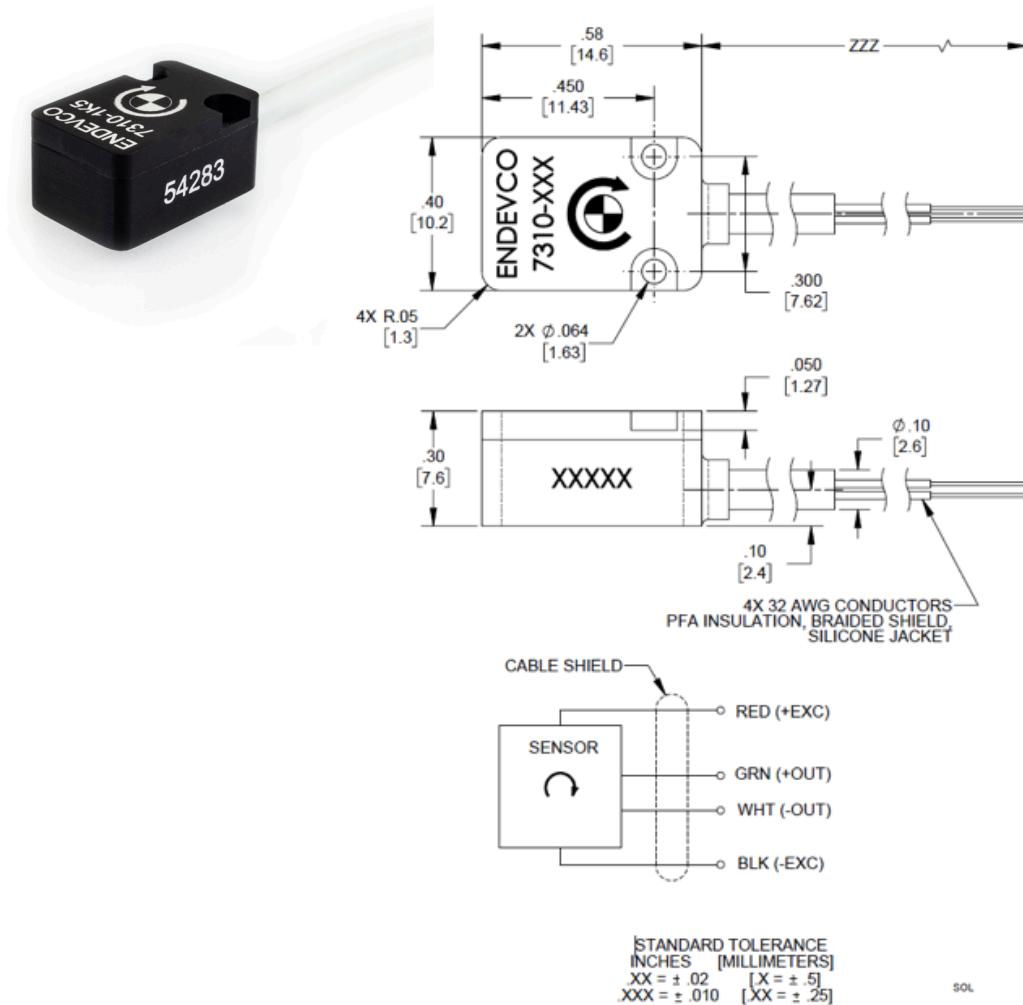


Angular Rate Sensor

Model 7310



Key features

- Ranges of 100, 500, 1500, 6K, 8K, 12K and 18K deg/sec
- Up to 2000 Hz bandwidth
- Weighs less than 3 grams
- Operates with 5 to 16V input

The ENDEVCO® Model 7310 is an angular rate sensor that provides reliable sensing performance even under excessive shock and vibration environments. This angular rate sensor is designed specifically for automotive safety testing and other system designs requiring accurate measurement of rotational velocity. The 7310 angular rate sensor features various full angular rate ranges including ±100, ±500, ±1500, ±6000, ±8000, ±12000 and ±18000 deg/sec, and provides full scale voltage output of ±2Vpk.

Angular Rate Sensor Model 7310

Specifications

All specifications assume +75°F (+24°C) unless otherwise stated.

Dynamic characteristics	Units	-100	-500	-1K5	-6K	-8K	-12K	-18K
Range	deg/sec	±100	±500	±1500	±6000	±8000	±12000	±18000
Sensitivity (±15%)	mV/deg/sec	20	4	1.333	0.333	0.25	0.167	0.111
Zero measurand output	mV	±100	±100	±100	±100	±100	±100	±100
Non-linearity (Maximum)	%FSO	±0.5	±0.5	±0.5	±0.5	±0.5	±0.5	±0.5
Frequency response (+1dB/-3dB, ref 100 Hz)	Hz	0-1000	0-1000	0-1000	0-1000	0-1000	0-2000	0-2000
Cross axis sensitivity	%	<1	<1	<1	<1	<1	<1	<1
Thermal zero shift (max) -40°C to +105°C [-40°F to +221°F]	%FSO	±2.5	±2.5	±2.5	±2.5	±2.5	±2.5	±2.5
Thermal sens shift (max) -40°C to +105°C [-40°F to +221°F]	%	±2.0	±2.0	±2.0	±2.0	±2.0	±2.0	±2.0
Residual noise (passband)	mV RMS	±3.4	±3.2	±2.5	±2.1	±2.1	±1.8	±1.8
Electrical								
Excitation voltage		5 to 16 Vdc						
Current drain		6 mA max						
Output impedance		200 ohms max						
Common mode voltage (±5%)		2.5 Vdc						
Full scale output voltage (±15%)		±2 Vpk						
Insulation resistance (@100Vdc)		>100 MΩ						
Warm-up time (to within 1% of final output value)		<100 ms						
Physical								
Weight		3 grams (without cable)						
Case material		Anodized aluminum alloy						
Cable type		Integral 4 conductor, # 32 AWG PFA insulated leads, shielded with silicone jacket						
Mounting/torque		#0-80 screws / 4lb-in (0.45N-m)						
Environmental								
Shock limit		5000g						
Influence of linear acceleration		0.1 deg/sec/g typical						
Operating temperature		-40°C to +105°C [-40°F to +221°F]						
Storage temperature		-40°C to +105°C [-40°F to +221°F]						
Humidity		IP67						
Calibration data								
Sensitivity		Measured at +7 Vdc excitation and 100 deg/sec for -100, 500 deg/sec for -500, 1500 deg/sec for -1K5, and 3000 deg/sec for -6K, -8K, -12K and -18K						
Zero measurand output		Measured at +7 Vdc excitation and room temperature						
Non-linearity		Measured at +7 Vdc excitation within range ±100 deg/sec for -100, ±500 deg/sec for -500, ±1500 deg/sec for -1K5 and ±3000 deg/sec for -6K, -8K, -12K and -18K						

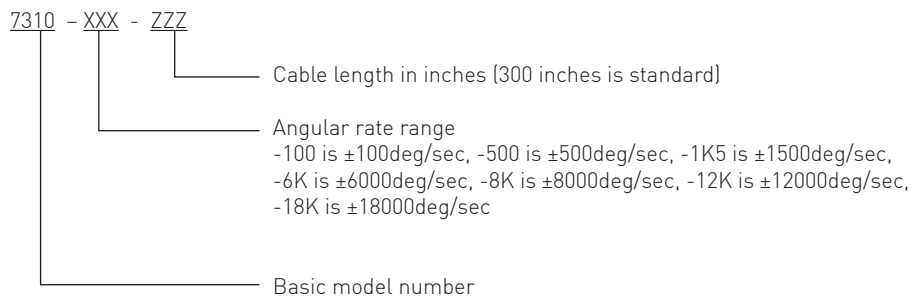
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Accessories

Product	Description	
EH863	#0-80 (3/8 Length) socket head cap screw, 2x	Included
EHW196	Washer, 2x	Included
EHM2156	Hex wrench	Included
7930	Triaxial Mounting Block	Optional

Notes

- Model number definition:



- Maintain high levels of precision and accuracy using Endevco's factory calibration services. Call Endevco's inside sales force at 866-ENDEVCO for recommended intervals, pricing and turn-around time for these services as well as for quotations on our standard products.

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