Jewell Instruments

MAKING SENSE OUT OF MOTION

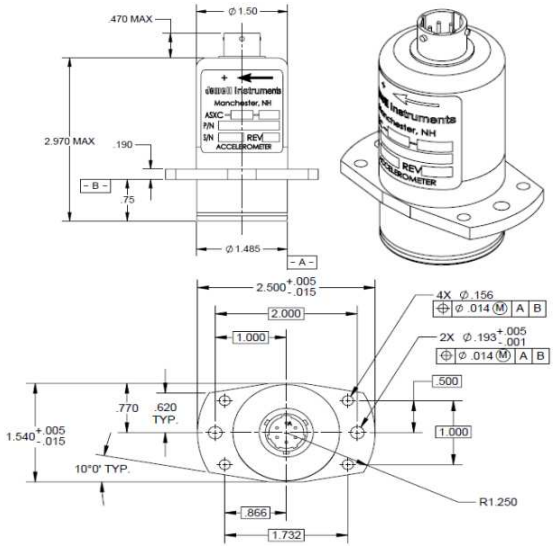
ASXC

Angular Accelerometer

The Jewell ASXC Series Fluid Rotor Angular Accelerometer is a force balanced servo accelerometer that uses a fluid-filled ring chamber to measure angular acceleration. The ASXC is currently used in a wide variety of applications such as many military and aviation flight controls including autopilot or aircraft stability and control systems or satellite stability.

FEATURES:

- Standard Input Ranges ±2 to ±100 rad/sec²
- Resolution to 0.001 rad/sec²
- Very High Output to Size Ratio
- Self-test for Greater Than 95% Fail Detection
- -30°C to +70°C Operating Temperature Range



Dimensions: in [mm]

APPLICATIONS:

- Aircraft Stability Augmentation
- Race car Performance Testing
- Camera Angular Motion Stabilization
- Autopilot System Input
- Rotating System Performance Testing
- FLIR
- Flight Simulation
- Dyno Testing
- Weapons Control and Targeting
- Airframe Fatigue Monitoring

PIN OUTS

A	+15 VDC
B	Signal PWR & GND
C	-15 VDC
D	Eo (Voltage Output)
E	Factory Test Return
F	Factory Test (Optional)

PERFORMANCE SPECIFICATIONS

PERFORMANCE

INPUT RANGE (rad/sec²)[1]	±2	±10	±20	±50	±100
FULL RANGE OUTPUT (FRO V± 1.0%)	±10.0				
NON LINEARITY (%FRO max)[2]	1.0				
SCALE FACTOR (Volts/rad/sec², nominal)	5.0	1.0	0.5	0.2	0.1
SCALE FACTOR TEMP. SENSOR (%reading/°C, max)	0.09				
BIAS (rad/sec², max)	±0.005	±0.020	±0.030	±0.080	±0.100
BIAS TEMPERATURE (rad/sec²/°C, max)	0.001				
NATURAL FREQUENCY (Hz, Min.)	100	150	150	170	170
DAMPING RATIO (Nominal)	0.9				
INPUT-AXIS MISALIGNMENT (°max)	±0.025				
RESOLUTION & THRESHOLD (rad/sec², max)	0.001	0.001	0.002	0.005	0.010

ELECTRICAL

AXES	1				
INPUT VOLTAGE RANGE (VDC, 10%)	±15				
INPUT CURRENT (mA, max.)	25				
OUTPUT IMPEDANCE (Ohms, nom)	100				
NOISE (Vrms max)	0.03	0.03	0.05	0.05	0.05

ENVIRONMENTAL

OPERATING TEMPERATURE RANGE	-30° to +70°C
SURVIVAL TEMPERATURE RANGE	-40° to +70°C
SEAL	MIL-STD 202, Method 112
WEIGHT. oz (grams)	8.5 oz.

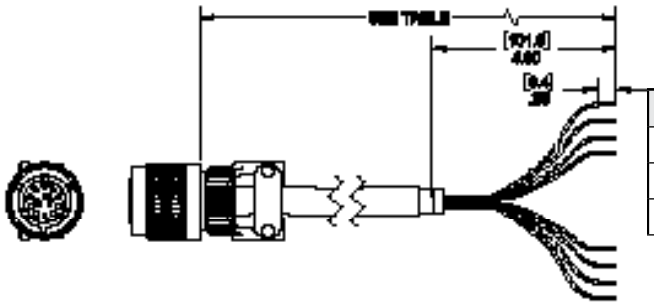
Notes:

1. Full range is defined as “from negative full input acceleration to positive full input acceleration.”
2. Nonlinearity is specified as deviation of output referenced to a best fit straight line, independen of misalignment.
3. This product falls under the trade classification of 7A994

Specifications subject to change without notice on account of continued product development

ACCESSORIES

CONNECTOR CABLE



PART #	MODEL #	LENGTH m (ft)
62101011-001	6-Pin Mating Connector	-
879605-007	DSI-CBL-02M-1	2 (6.56)
879605-008	DSI-CBL-03M-1	3 (9.84)

ORDERING INFORMATION

HOW TO ORDER

	MODEL #	PART #
±2	ASXC-2	02550271-000
±10	ASXC-10	02550267-000
±50	ASXC-50	02550257-000
±100	ASXC-100	02550262-000

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Jewell Instruments
ISO9001 CERTIFIED