

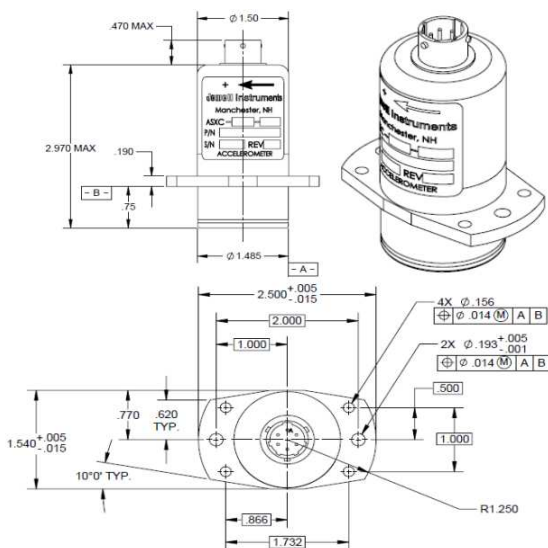
ASXC

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	SELF 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.)	70	100	120		
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

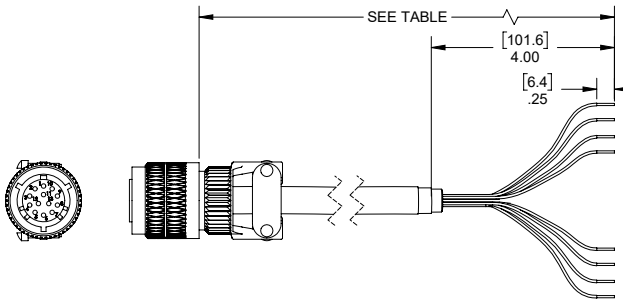
OPERATING TEMPERATURE RANGE	-30° to +70°C
SURVIVAL TEMPERATURE RANGE	-40° to +70°C
SEAL	MIL-STD 202, Method 112
WEIGHT. oz (grams)	8.5 oz.

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, independent of misalignment.
3. Output phase angle = -90°.
4. Unit Power connections can be easily adapted for operation from single-ended, floating power supplies of 24 to 36 Volts DC

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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