Jewell Instruments

MAKING SENSE OUT OF MOTION



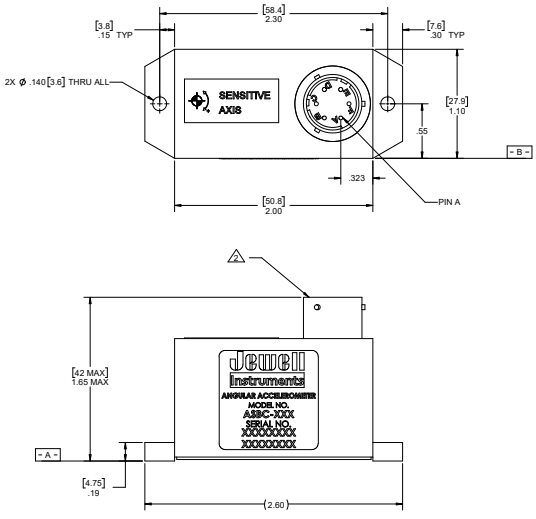
ASBC

Angular Accelerometer

The Jewell ASBC Series Angular Accelerometer is a general-purpose ±200 radian/second² to ±1500 radian/second² device for industrial, commercial and sensing requirements.

FEATURES:

- Bandwidths up to 120 Hz
- IP65 Seals
- Available 28V Aircraft Input
- Connector
- Aerospace Quality and Reliability
- Low Output Impedance
- High Input Range



Dimensions: in [mm]







APPLICATIONS:

- Antenna Stabilization
- Acceleration Measurement for Guidance Control Systems
- Vehicle Ride Analysis
- Optical System Stabilization
- Autopilot System Input
- Motor Torque Measurement & Control
- Automotive Angular Acceleration Testing
- (6 Degrees of Freedom) Flight Simulators
- Dyno Testing

PIN OUTS

A	+12 to +18 VDC
B	POWER/SIGNAL COMMON
C	-12 to -18 VDC
D	Eo (Volts/g)
E	Current Output
F	SELF TEST (OPTIONAL)



PERFORMANCE SPECIFICATIONS

PERFORMANCE

INPUT RANGE (rad/sec²)[1]	±200	±500	±1000
FULL RANGE OUTPUT (FRO V± 1.0%)		±5.0	
NON LINEARITY (%FRO max)[2]	0.50	0.20	0.10
SCALE FACTOR (Volts/rad/sec², nominal)	0.025	0.010	0.005
SCALE FACTOR TEMP. SENSOR (PPM/°C, max)		180	
BIAS (rad/sec², max)	1.0	4.0	4.0
BIAS TEMPERATURE (rad/sec²/°C, max)	0.05	0.05	0.10
NATURAL FREQUENCY (Hz, nom)[3]	70	100	120
BANDWIDTH (-3db, Hz, nom)	70	100	120
INPUT-AXIS MISALIGNMENT (°max)		1.0	
RESOLUTION & THRESHOLD (rad/sec², max)		0.005	

ELECTRICAL

INPUT VOLTAGE RANGE (VDC, nominal)	±12 to ±18		
INPUT CURRENT (mA, nom)		10.0	
OUTPUT IMPEDANCE (Ohms, nom)	10k	4k	5k
NOISE (mV, rms max)		5.0	

ENVIRONMENTAL

OPERATING TEMPERATURE RANGE	-55° to +95°C
SURVIVAL TEMPERATURE RANGE	-65° to +105°C
SHOCK	100 g, 0.011 sec, $^1/_2$ sine
SEAL	MIL-STD 202, Method 112
WEIGHT	3 oz (85.049g)

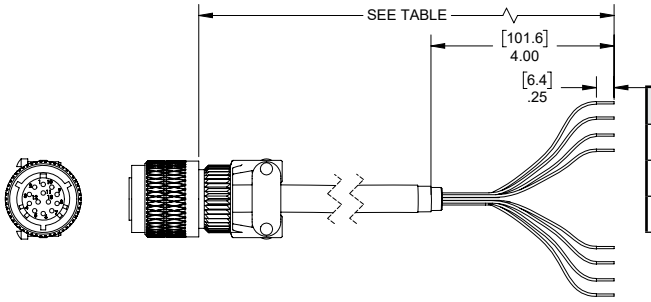
Notes:

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. 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 #
±200	ASBC-200	02550280-001
±500	ASBC-500	02550280-002
±1000	ASBC-1000	02550280-003
±1500	ASBC-1500	02550280-004

850 Perimeter Road Manchester, NH 30103 USA

SENSORS: 800.227.5955
www.jewellinstruments.com | sensors@jewellinstruments.com

© Jewell Instruments 2020

Jewell Instruments
ISO9001 CERTIFIED