

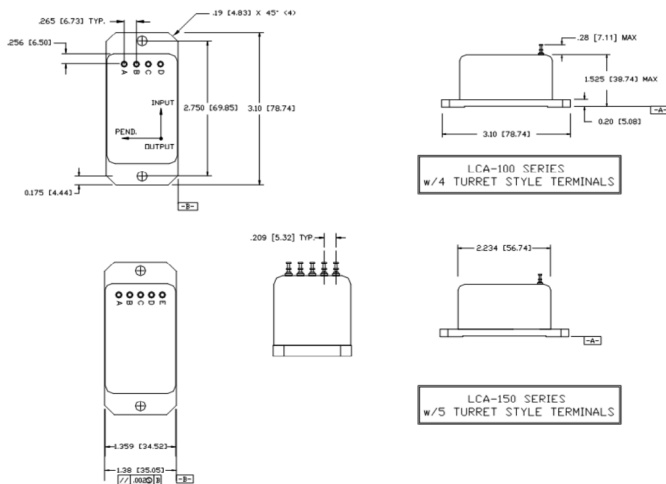
## LCA-100

### Single-Axis Analog Accelerometer

The LCA-100 Series is a single axis accelerometer that is  $\pm 12$  to  $\pm 18$  Vdc and is also DO-160 approved for aerospace applications. The Jewell LCA-100 Series Accelerometer is a general-purpose  $\pm 0.5g$  to  $\pm 5g$  device designed for industrial, commercial and aerospace sensing requirements.

#### FEATURES:

- Filtering Available
- Available in 28V Aircraft Input
- 0.20% 10-year Scale Factor Stability
- Wide Bandwidths for Higher Range Applications



Dimensions: in [mm]



#### APPLICATIONS:

- Aircraft Flight Controls
- Aircraft Fatigue Monitoring
- Train Performance Testing
- Aircraft Autopilot System Input
- Aircraft Winds-shear Detection
- Double Integrated Railcar Position
- Rail Automated Train Controls

#### PIN OUT:

<b>A</b>	+12 to +18 VDC
<b>B</b>	-12 to -18 VDC
<b>C</b>	Power/Sig Common
<b>D</b>	Eo [Volts/g]

# PERFORMANCE SPECIFICATIONS

## PERFORMANCE

<b>INPUT RANGE (g)</b>	<b>±0.5</b>	<b>±1.0</b>	<b>±2.0</b>	<b>±5.0</b>
<b>FULL RANGE OUTPUT VDC (FRO ± 0.5%)<sup>1</sup></b>	±5.0			
<b>SCALE FACTOR (V/g, nominal)</b>	10.0	5.0	2.5	1.0
<b>SCALE FACTOR TEMP. SENSITIVITY (PPM/°C, max)</b>	180			
<b>NATURAL FREQUENCY, Hz nominal<sup>2</sup></b>	60.00			
<b>BANDWIDTH (-3db, Hz, nominal)</b>	60.00			
<b>TRANSVERSE AXIS MISALIGNMENT (° max)</b>	0.71			
<b>BIAS, g RANGE</b>	±0.5	±0.1	±0.1	±0.05
<b>BIAS TEMPERATURE SENSITIVITY, (µg / °C max)</b>	100			
<b>RESOLUTION &amp; THRESHOLD (µg) max</b>	10			

## ELECTRICAL

<b>NUMBER OF AXES</b>	1
<b>INPUT VOLTAGE RANGE (VDC)<sup>4</sup></b>	±12 to ±18
<b>INPUT CURRENT (mA, max)</b>	25
<b>OUTPUT IMPEDANCE (Ohms, nominal)</b>	1
<b>NOISE (Vrms max)</b>	0.005

## ENVIRONMENTAL

<b>OPERATING TEMPERATURE RANGE</b>	-55° to +80°C
<b>STORAGE TEMPERATURE RANGE</b>	-60° to +90°C
<b>SHOCK</b>	100g, 0.011 sec, 1/2 sine
<b>VIBRATION</b>	0 grms
<b>WEIGHT</b>	4 oz
<b>SEAL</b>	MIL-STD-202, Mtd. 112

### NOTES:

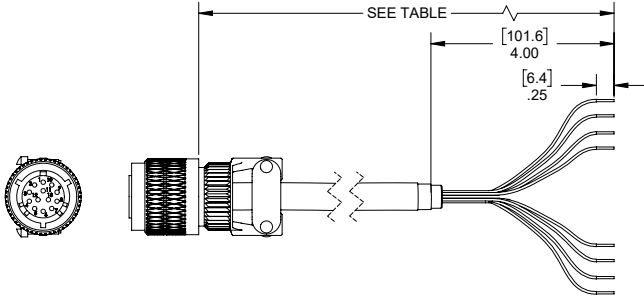
1. Full Range is defined "from negative full input acceleration to positive full input acceleration."
2. Output Phase angle = - 90°.

Specifications are subject to change without notice due to 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)
879605-020	DSI-CBL-05M-1	5 (16.4)
Contact manufacturer for custom lengths		

# ORDERING INFORMATION

## HOW TO ORDER

	MODEL #	PART #
±0.5	LCA-100-0.5g	451040-006
±1	LCA-100-1g	451040-004
±2	LCA-100-2g	451040-001
±5	LCA-100-5g	451040-002

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