

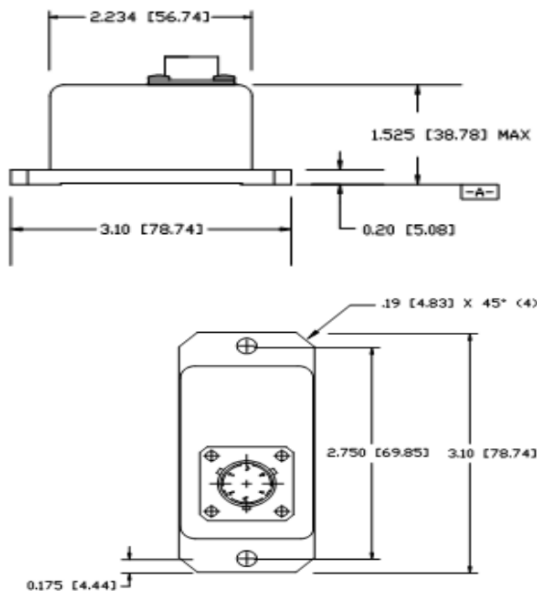
LCA-165-R

Single-Axis Analog Accelerometer

Proven History of Successful Railway Applications and Highest Repeatability Sensor of its Class in the World. The Jewell LCA-165-R Series accelerometers are configured specifically to yield a combination of high accuracy and ruggedness in railway applications. The Jewell LCA-165-R Series is the highest repeatability sensor of its class in the world today and meets or exceeds CENELEC/AREMA standards.

FEATURES:

- $\pm 0.5g$ to $\pm 2.0g$ Full Range
- Filtering Available
- Exceptional Bias
- High Level $\pm V_{dc}$ Output
- 100g Shock Capability



Dimensions: in [mm]



APPLICATIONS:

- Rail Monitoring and Testing
- Automated Train Controls
- Train Performance Testing
- Acceleration/Deceleration Control

PIN OUT:

A	+15 VDC
B	Power/Sig Common
C	-15 VDC
D	Eo [Volts/g]
E	N/C
F	N/C

PERFORMANCE SPECIFICATIONS

PERFORMANCE

INPUT RANGE (g)	±0.5	±1.0	±2.0	±5.0
FULL RANGE OUTPUT VDC (FRO ± 0.5%) ¹	±5.0			
NONLINEARITY (% FRO max) ²	0.05			
SCALE FACTOR (V/g, nominal)	10.0	5.0	2.5	1.0
SCALE FACTOR TEMP. SENSITIVITY (PPM/°C, max)	180			
NATURAL FREQUENCY, Hz nominal ²	60.00			
TRANSVERSE AXIS MISALIGNMENT (° max)	1.0			
BIAS, g RANGE	±0.01			
BIAS TEMPERATURE SENSITIVITY, (µg / °C max)	100			
RESOLUTION & THRESHOLD (µg) max	10			

ELECTRICAL

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

ENVIRONMENTAL

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

NOTES:

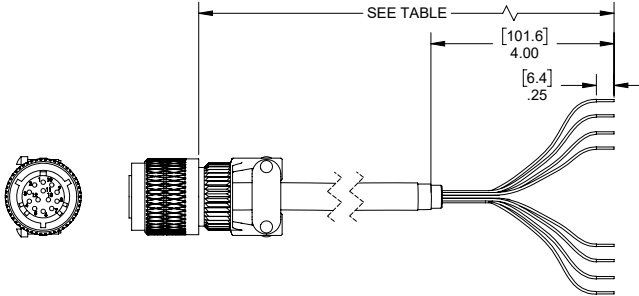
1. Full Range is defined "from negative full input acceleration to positive full input acceleration."
2. Nonlinearity is specified as deviation of output referenced to theoretical sine function value, independent of misalignment.
3. Output Phase angle = - 90°.

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-165-0.5g-R	Inquire
±1	LCA-165-1g-R	Inquire
±2	LCA-165-2g-R	Inquire
±5	LCA-165-5g-R	Inquire



CENELEC EN 55022:2010
 CENELEC EN 50155:2007
 CENELEC EN 61000-4-8:2010

AREMA PART 11.5.1

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