

# Model AL-JP

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## High Output Load Cell



### DESCRIPTION

Model AL-JP is a high output load cell (30 mV/V minimum). These semiconductor strain gage load cells are engineered to measure loads from 500 lb to 2000 lb. The tension/compression Model AL-JP is designed with female threads. It provides high

performance in non-linearity, hysteresis, and repeatability. Low mechanical deflection allows for better response capability.

### FEATURES

- 500 lb, 1000 lb, and 2000 lb range
- Tension/compression
- High output/low bridge resistance (125 Ohm nominal)
- Drive meters without amplification
- Low mechanical deflection

# Model AL-JP

## PERFORMANCE SPECIFICATIONS

Characteristic	Measure
Load ranges <sup>4</sup>	500, 1000, 2000 lb
Accuracy (static error band) <sup>1</sup>	±0.15 % full scale
Non-repeatability	±0.05 % full scale
Output	30 mV/V minimum
Operation	Tension/compression
Resolution	Infinite

## ENVIRONMENTAL SPECIFICATIONS

Characteristic	Measure
Temperature, operating	-54 °C to 93 °C [-65 °F to 200 °F]
Temperature, compensated	-1 °C to 54 °C [30 °F to 130 °F]
Temperature, storage	-73 °C to 121 °C [-100 °F to 250 °F]
Temperature effect, zero	0.5 % full scale/°F
Temperature effect, span	0.5 % reading/°F

## ELECTRICAL SPECIFICATIONS

Characteristic	Measure
Strain gage type	Bonded semiconductor
Excitation (calibration)	5 Vdc or Vac (RMS)
Insulation resistance	5000 mOhm @ 50 Vdc or V
Bridge resistance	125 ohm nominal (input and output)
Zero balance	3.0 % full scale (max.)
Electrical termination (std)	3106B-14S-5P connector mounted at end of 10 ft cable

## MECHANICAL SPECIFICATIONS

Characteristic	Measure
Maximum allowable load	150 % full scale <sup>2</sup>
Side load without damage	100 %
Weight	See table
Material	17-4 PH stainless steel
Deflection	See table
Natural frequency	See table

## WIRING CODES

Tension	
A	(+) excitation
B	(+) signal
C	(-) signal
D	(-) excitation
E	shield

Compression	
A	(+) excitation
B	(-) signal
C	(+) signal
D	(-) excitation
E	shield

## RANGE CODES

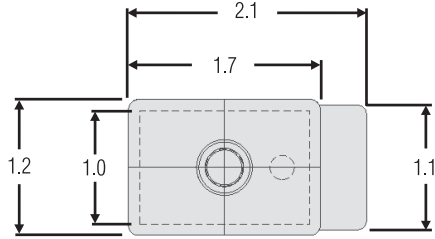
Range Codes	Range
CR	500 lb
CV	1000 lb
DL	2000 lb

## OPTION CODES

	<b>Many range/option combinations are available in our quick-ship and fast-track manufacture programs. Please see <a href="http://sensing.honeywell.com/TMsensor-ship">http://sensing.honeywell.com/TMsensor-ship</a> for updated listings.</b>
<b>Load range</b>	500 lb, 1000 lb, 2000 lb
<b>Temperature compensation</b>	10 °F to 120 °F
<b>Internal amplifiers</b>	2u. Unamplified, mV/V output
<b>Electrical termination</b>	3106B-14S-5P connector mounted at end of 10 ft cable
<b>Special calibration</b>	30a. Compression only (+) output 30b. Tension and compression (+,-) output 30c. Compression only (-) output

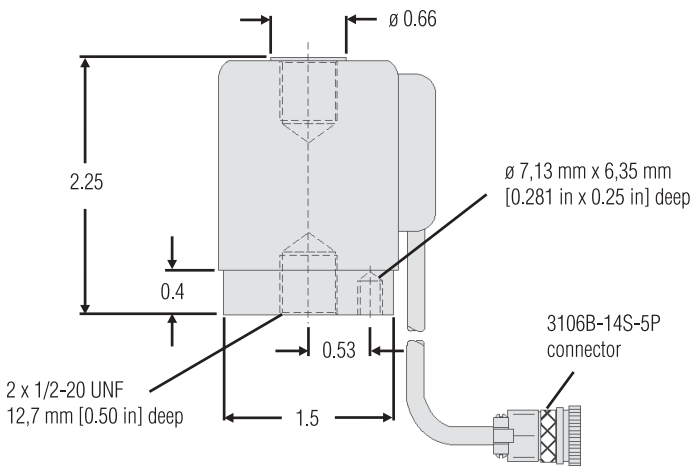
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### MOUNTING DIMENSIONS



### DEFLECTIONS AND RINGING FREQUENCIES

Capacity	Axial deflection at full scale mm [in]	Natural frequency (Hz)	Weight kg [lb]
500 lb	0,025 mm [0.0010]	5000	0,544 [1.2]
1000 lb	0,038 mm [0.0015]	6000	0,544 [1.2]
2000 lb	0,051 mm [0.0020]	6700	0,544 [1.2]



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## NOTES

1. Static error band is the recommended performance specification. The static error band is calculated as the best fit straight line through zero, including the effects of non-linearity, hysteresis and non-repeatability.
2. Allowable maximum loads – maximum load to be applied without damage<sup>3</sup>.
3. Without damage - loading to this level will not cause excessive zero shift of performance degradation. The user must consider fatigue life for long term use and structural integrity. All structurally critical applications (overhead loading, etc.) should always be designed with safety redundant load paths.
4. This unit calibrated to Imperial (non-Metric) units.

**Warranty.** Honeywell warrants goods of its manufacture as being free of defective materials and faulty workmanship. Honeywell's standard product warranty applies unless agreed to otherwise by Honeywell in writing; please refer to your order acknowledgement or consult your local sales office for specific warranty details. If warranted goods are returned to Honeywell during the period of coverage, Honeywell will repair or replace, at its option, without charge those items it finds defective. **The foregoing is buyer's sole remedy and is in lieu of all warranties, expressed or implied, including those of merchantability and fitness for a particular purpose. In no event shall Honeywell be liable for consequential, special, or indirect damages.**

While we provide application assistance personally, through our literature and the Honeywell web site, it is up to the customer to determine the suitability of the product in the application.

Specifications may change without notice. The information we supply is believed to be accurate and reliable as of this printing. However, we assume no responsibility for its use.

### **WARNING** **PERSONAL INJURY**

- DO NOT USE these products as safety or emergency stop devices or in any other application where failure of the product could result in personal injury.

**Failure to comply with these instructions could result in death or serious injury.**

### **WARNING** **MISUSE OF DOCUMENTATION**

- The information presented in this catalogue is for reference only. DO NOT USE this document as product installation information.
- Complete installation, operation and maintenance information is provided in the instructions supplied with each product.

**Failure to comply with these instructions could result in death or serious injury.**

## Find out more

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