

# Models 3149-FR

## Low Capacity Fatigue Load Cell



### DESCRIPTION

The 3149-FR tension/compression load cells are designed for demanding applications in automotive, aerospace and military markets.

This model is offered in capacity ratings of 50, 100 and 300 lb. Standard output is 2.0 mV/V with an overall accuracy of 0.05%.

The sensors have a nominal bridge resistance of 350 ohm and can be powered by up to 15 Vac or Vdc. Safe overload range is 150% of rated capacity.

The load cells are offered with optional dual bridge output to provide force feedback and control or redundancy.

### FEATURES

- Fatigue rated
- Compact size
- High accuracy
- Tension and compression
- Dual bridge output

# Model 3179-FR

## PERFORMANCE SPECIFICATIONS

Characteristic	Measure
Load range <sup>1</sup>	50, 100, 300 lbf
Zero balance	±1.0 % of rated output
Non-linearity	±0.05 % of rated output
Hysteresis	±0.05 % of rated output
Non-repeatability	±0.01 % of rated output
Static error band	±0.05 % of rated output
Creep	±0.03 % (reading in 20 minutes)

## ENVIRONMENTAL SPECIFICATIONS

Characteristic	Measure
Temperature, operating	-54 °C to 93 °C [-65 °F to 200 °F]
Temperature, compensated	-9 °C to 46 °C [15 °F to 115 °F]
Temperature effect, sensitivity	0.08 % reading/100 °F
Temperature effect, zero	0.15 % of rated output/100 °F

## ELECTRICAL SPECIFICATIONS

Characteristic	Measure
Excitation (recommended)	10 Vdc
Input resistance	700 ohm, +40/-3.5 ohm
Output resistance	700 ohm ±3.5 ohm
Sensitivity (rated output)	2 mV/V (nominal)
Insulation resistance, bridge/case	5000 mOhm @ 50 Vdc

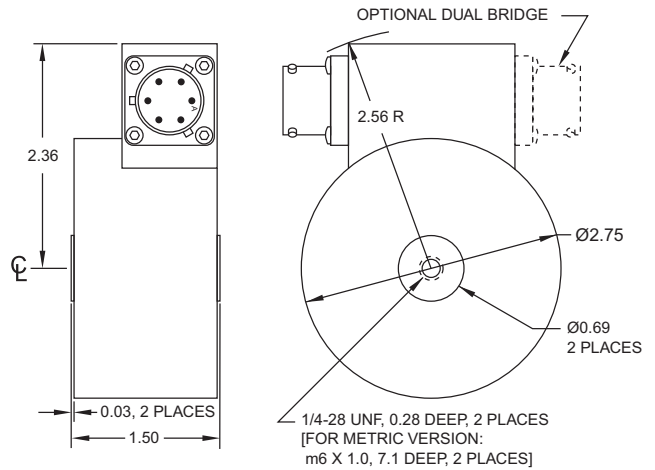
## MECHANICAL SPECIFICATIONS

Characteristic	Measure
Safe overload range	150 % of rated output
Weight	0.8 lb
Flexure material	Aluminum

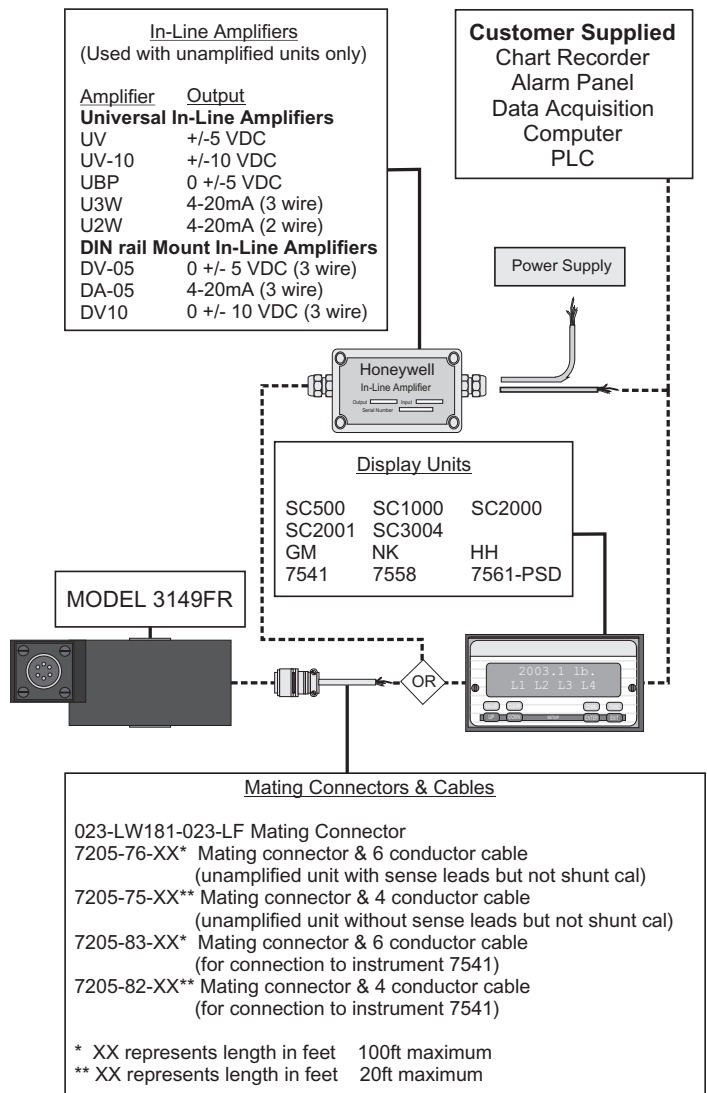
## WIRING CODES

Cable	
Red	(+) excitation
Black	(-) excitation
Green	(+) output
White	(-) output

## MOUNTING DIMENSIONS



## TYPICAL SYSTEM DIAGRAM



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## NOTES

1. 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.**

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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.

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Email inquiries to [info.sc@honeywell.com](mailto:info.sc@honeywell.com)

### **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.**

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008620-1-EN IL50 GLO  
May 2008

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