

Model 3167

Tension/Compression Pancake Load Cell



DESCRIPTION

These general purpose designs have exceptional structural capability to withstand extraneous loads, such as torque, bending moments, and side loads.

Available in capacities of 25 lb to 300 lb, they offer maximum performance and enhanced accuracy.

Minimum deflection and compactness make these general-purpose load cells easy to install and use.

FEATURES

- Up to 0.05 % accuracy
- 25 lb to 300 lb range
- Integral cable (standard)
- Low sensitivity to extraneous loads
- Low deflection
- Built-in temperature compensation

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PERFORMANCE SPECIFICATIONS

Characteristic	Measure
Load range ¹	25, 50, 100, 200, 300 lb
Non-linearity	±0.05 % of rated output
Hysteresis	±0.05 % of rated output
Repeatability	±0.02 % of rated output
Output @ rated capacity	2 mV/V ±0.25 % (nominal)
Operation	Tension/compression
Resolution	Infinite
Standard calibration	Tension (+) and compression (-)

ENVIRONMENTAL SPECIFICATIONS

Characteristic	Measure
Temperature, operating	-54 °C to 93 °C [-65 °F to 200 °F]
Temperature, compensated	21 °C to 77 °C [70 °F to 170 °F]
Temperature effect, zero	±0.002 % of rated output/°F
Temperature effect, output	±0.002 % of reading/°F

ELECTRICAL SPECIFICATIONS

Characteristic	Measure
Strain gage type	Foil
Excitation (maximum)	20 Vdc or Vac RMS
Insulation resistance	> 5000 mOhm @ 50 Vdc
Bridge resistance (tolerance)	350 ohm
Number of bridges	1
Zero balance	±5.0 %
Electrical termination	15 ft of Belden 8723 four-conductor shielded cable

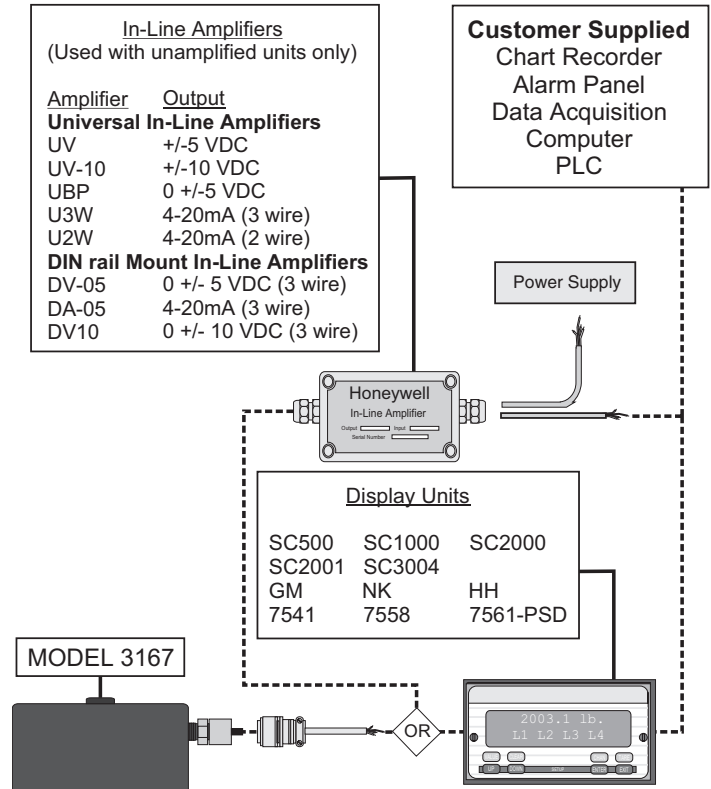
MECHANICAL SPECIFICATIONS

Characteristic	Measure
Static overload capacity	150 % of nominal capacity
Material	Carbon steel
Natural frequency	See table

WIRING CODES

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

TYPICAL SYSTEM DIAGRAM



Tension/Compression Pancake Load Cell

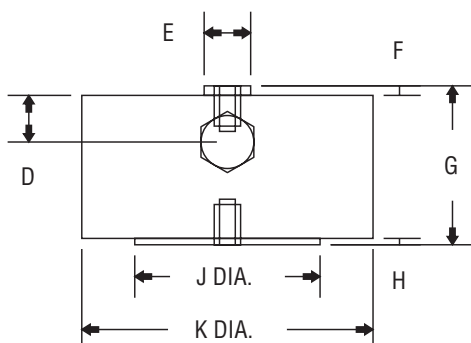
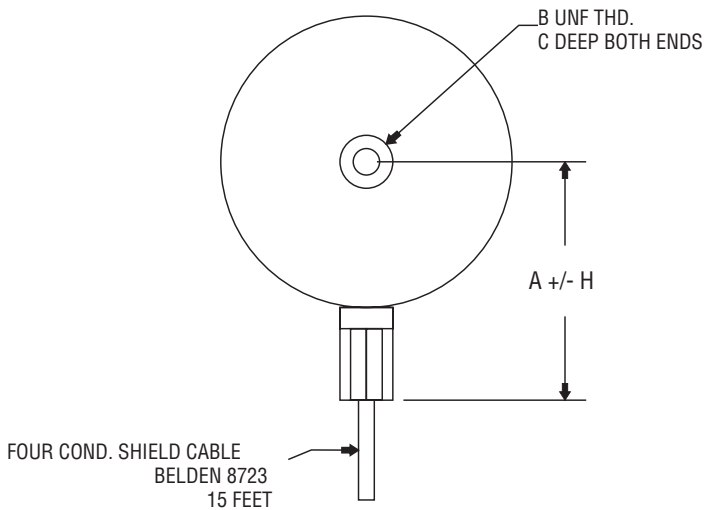
NATURAL FREQUENCY

Nominal load limit capacity F_z		Static extraneous load limits					
lb	N	Static over-load capacity (% of nominal capacity)	Shear F_x or F_y (lb)	Bending M_x or M_y (lb-in)	Torque M_z (lb-in)	Deflection at nominal load limit (in)	Ringling frequency (Hz)
25	125	150	150	150	40	0.003	2100
50	200	150	150	150	40	0.003	2800
100	500	150	250	180	40	0.003	3800
200	1K	150	250	180	40	0.003	5400
300	1.5K	150	250	180	40	0.003	7000

MOUNTING DIMENSIONS

Model	A cm [in]	B cm [in]	C cm [in]	D cm [in]	E cm [in]
3167	5,72 [2.25]	- [1/4-28]	0,95 [0.38]	1,10 [0.44]	1,10 [0.44]

F cm [in]	G cm [in]	G cm [in]	J cm [in]	K cm [in]
0,24 [0.09]	3,80 [1.50]	0,16 [0.06]	4,44 [1.75]	6,98 [2.75]



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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.**

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.

For more information about Sensing and Control products, visit www.honeywell.com/sensing or call +1-815-235-6847

Email inquiries to 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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