

## Model 3108

### 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. This low-range cell has built-in temperature compensation.

Available in capacities of five and ten pounds, they offer maximum performance and enhanced accuracy.

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

#### FEATURES

- 5 lb to 10 lb range
- 0.05 % accuracy
- Low sensitivity to extraneous loads
- Low deflection

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## PERFORMANCE SPECIFICATIONS

Characteristic	Measure
Load range <sup>1</sup>	5, 10 lb
Non-linearity	±0.01 % of rated output
Hysteresis	±0.01 % of rated output
Repeatability	±0.05 % 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 or 2
Zero balance	±1.0 %
Electrical termination	PT02E-10-6P mates with PT06W-10-6S

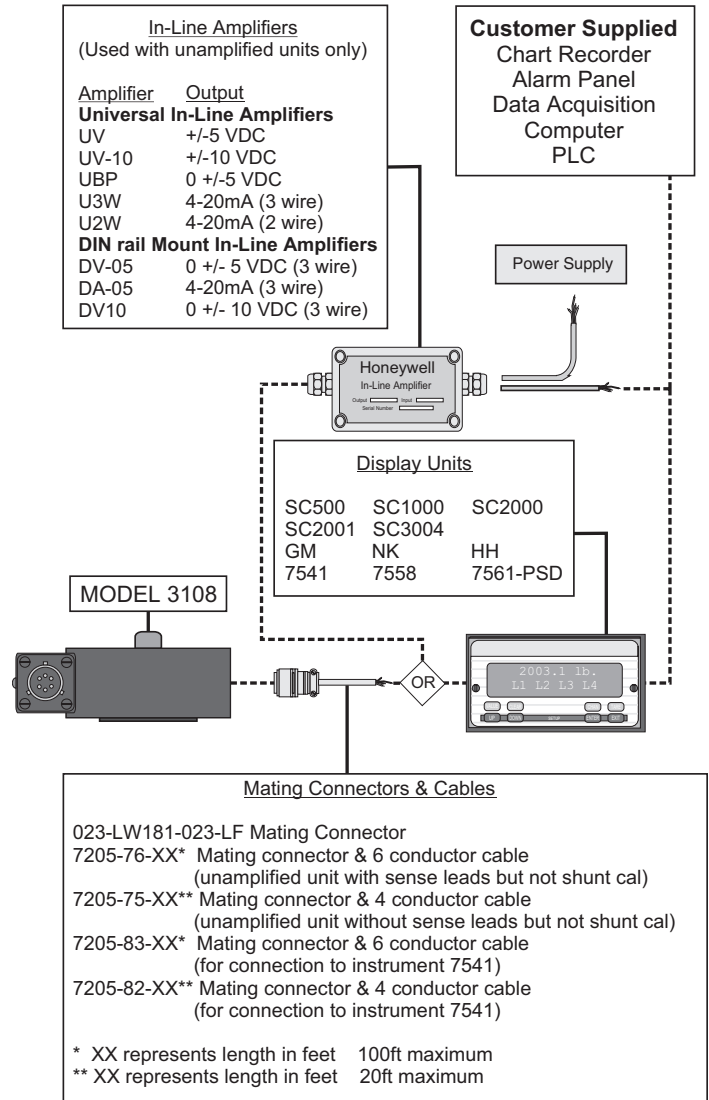
## MECHANICAL SPECIFICATIONS

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

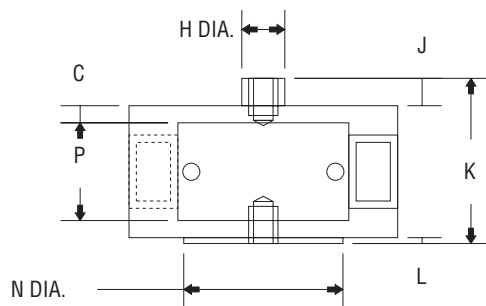
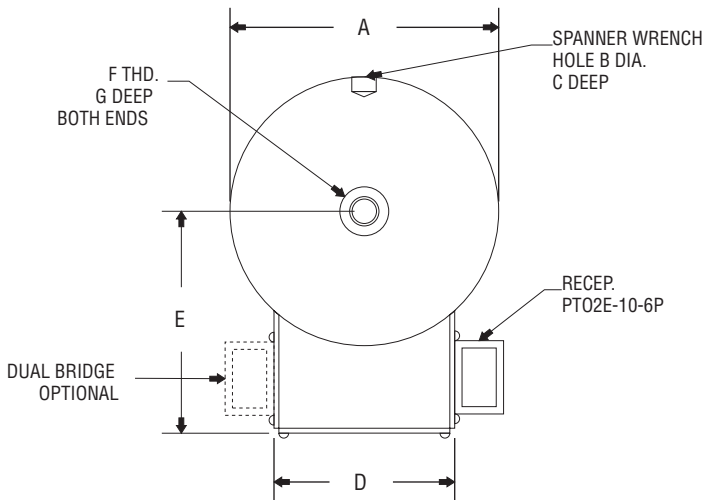
Nominal load limit capacity $F_z$		Static extraneous load limits					
lb	N	Static over-load capacity (% of nominal capacity)	Shear $F_x$ or $F_y$ (lb)	Bending $M_x$ or $M_y$ (lb-in)	Torque $M_z$ (lb-in)	Deflection at nominal load limit (in)	Ringling frequency (Hz)
5	20	150	30	30	3	0.005	500
10	50	150	40	40	4	0.005	900

### MOUNTING DIMENSIONS

Model	A cm [in]	B cm [in]	C cm [in]	D cm [in]	E cm [in]	F cm [in]
3108	6,98 [2.75]	0,55 [0.22]	0,32 [0.13]	4,44 [1.75]	5,60 [2.22]	- [1/4-28]

G cm [in]	H cm [in]	J cm [in]	K cm [in]	L cm [in]	N cm [in]	P cm [in]
1,27 [0.38]	1,10 [0.44]	0,71 [0.28]	3,80 [1.50]	0,16 [0.06]	4,13 [1.63]	2,54 [1.00]

NOTE: the 3108 mounting configuration is similar to the 3397.



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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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### **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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