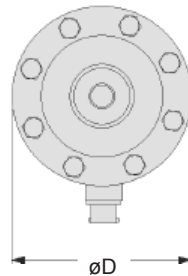
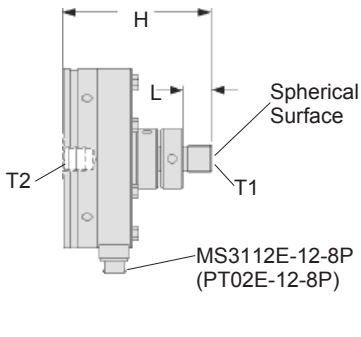


Model IC48 Imperial Class Tension & Compression Load Cell

Order Code AL121

- 100 to 100,000 lb. Range
- Designed as Calibration Reference Standards
- Enhanced Stability
- Optional ASTM E74 Calibration



Wiring Code

Connector/ Unamplified/ Sense Leads

- | | |
|---|----------------|
| A | (+) Excitation |
| B | (+) Sense |
| C | (-) Excitation |
| D | (-) Sense |
| E | (-) Output |
| F | (+) Output |

Dimensions

Range (lb.)	D (in.)	H (in.)	L (in.)	T1	T2
100; 250	3.00	2.25	0.50	3/8-24 UNF-2A	3/8-24 UNF-2B
500; 1000; 2500; 5000	4.13	4.38	0.75	5/8-18 UNF-3A	5/8-18 UNF-3B
10,000; 25,000	6.06	6.38	1.50	1 1/4-12 UNF-3A	1 1/4-12 UNF-3B
50,000	8.00	8.25	2.00	1 3/4-12 UNF-3A	1 3/4-12 UNF-3B
100,000	11.00	9.75	2.50	2 3/4-8 UNF-3A	2 3/4-8 UNF-3B

Performance

- Load Ranges.....100 to 100,000 lb.
- Accuracy (Static Error Band)(notes 1&2)
 - 100 to 1000 lb.....+/- 0.02% Full Scale
 - 2500 to 50,000 lb.....+/- 0.03% Full Scale
 - 100,000 lb.....+/- 0.05% Full Scale
- Linearity (max)
 - 100 to 1000 lb.....+/- 0.02% Full Scale
 - 2500 to 5000 lb.....+/- 0.03% Full Scale
 - 10,000 to 50,000 lb.....+/- 0.04% Full Scale
 - 100,000 lb.....+/- 0.05% Full Scale
- Hysteresis
 - 100 to 1000 lb.....+/- 0.02% Full Scale
 - 2500 to 25,000 lb.....+/- 0.04% Full Scale
 - 50,000 to 100,000 lb.....+/- 0.05% Full Scale
- Non-Repeatability.....+/- 0.005% Full Scale
- Tolerance on Output.....2 mV/V
- Resolution.....Infinite
- Eccentric Load Sensitivity.....+/-0.1%/ m

Environmental

- Temperature, Operating.....-65° to 200° F
- Temperature, Compensated.....30° to 130° F
- Temperature, Effect
 - Zero.....0.0008% Full Scale/° F
 - Span.....0.0008% Full Scale/° F

Model IC48

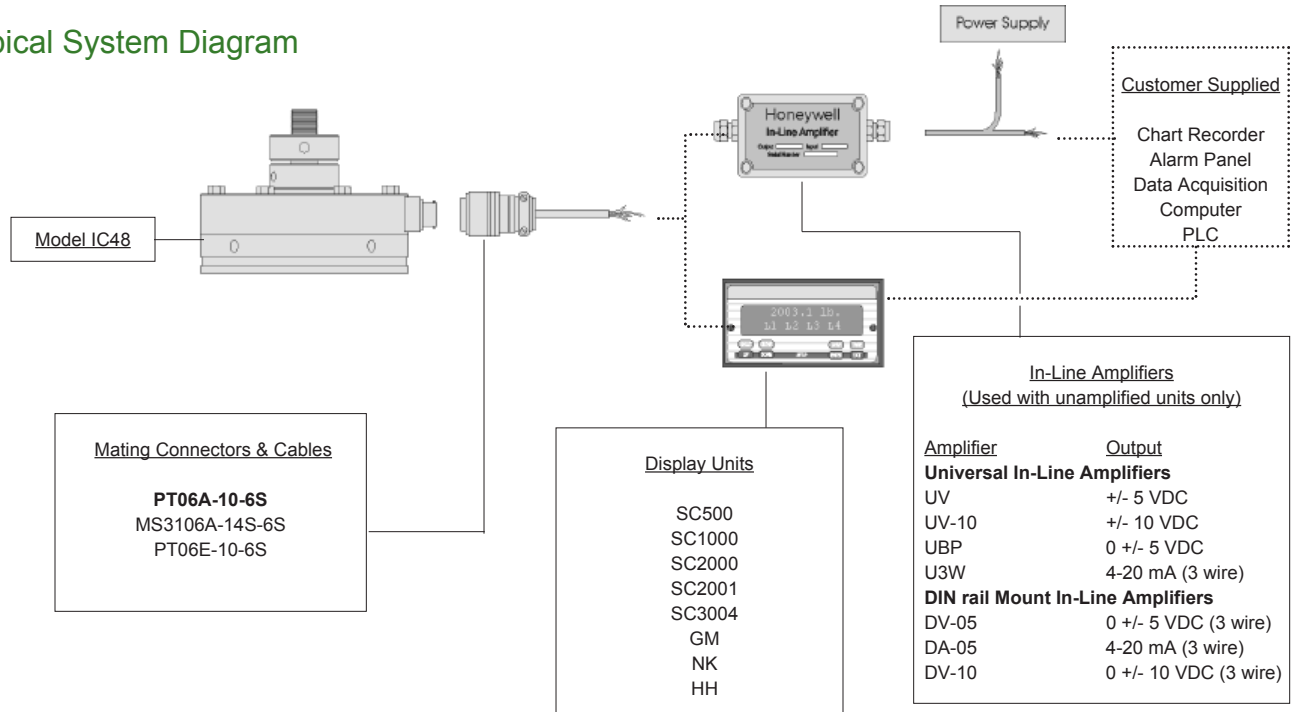
Electrical

Strain Gage Type.....Foil
 Excitation (calibration).....10 VDC
 Insulation Resistance.....5000 Megohms @ 50 VDC
 Bridge Resistance.....350 Ohms
 Electrical Termination (std)
 100 to 250 lb.....PTIH-10-6P
 500 lb. and above.....MS3112E-12-8P
 Mating Connector (not incl.)
 100 to 250 lb.....PT06A-10-6S
 500 lb. and above.....MS3116A-12-8S

Mechanical

Maximum Allowable Load.....150% F.S. (note 3)
 Weight(lb)
 For Load Range: 100 to 250 lb.....4.5
 500 to 5000 lb.....7
 10,000 to 25,000 lb.....22
 50,000 lb.....48
 100,000 lb.....133
 Deflection Full Scale
 100 to 250 lb.....0.002 in.
 500 to 1000 lb.....0.001 in.
 2500 to 25,000 lb.....0.002 in.

Typical System Diagram



Ringling Frequencies

Capacity (lb.)	Ringling Frequency (Hz)
100 to 250	2,000
500	2,400
1000	3,400
2500	6,800
5000	9,100
10,000	5,700
25,000	7,000
50,000	6,300
100,000	4,500


Model IC48

Range Codes

<u>Range</u>	<u>Range Code</u>
100 lb.	BR
250 lb.	CN
500 lb.	CR
1000 lb.	CV
2500 lb.	DM
5000 lb.	DR
10,000 lb.	DV
25,000 lb.	EM
50,000 lb.	EP
100,000 lb.	ET

Options

	Build from Scratch
Load Range	100 to 100,000 lb.
Temperature Compensation	1b. 30° to 130° F
Internal Amplifiers	2u. Unamplified, mV/V output
Electrical Termination	6a. PTIH-10-6P (100 to 250 lb.) MS3112E-12-8P (≥ 500 lb.)
Special Calibration	9c. A.S.T.M. E-74 calibration
Electrical Connector Orientation	Tension only (+) output
	30a. Compression only (+) output
	30b. Tension & Compression only (+,-) output
	30c. Compression only (-) output

 Supplied as standard

Special Customer Requirements (Consult Factory)

Calibration types, including standard calibration (performed in-house) with two 11-point tests (note 7) per direction specified:
 Tension (std.)
 Tension & Compression (30b)
 Compression (30a or 30c)
 Other size, range and output configurations

Notes

- 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 linearity, hysteresis and non-repeatability.
- Values noted are typical values but fall within the static error.
- Allowable Maximum Loads- Maximum load to be applied without damage (note 4). Loads described allow for 100% full scale axial loading with the bending loads specified. Torque loading maximum is without axial or other load. For any other combination consult factory.
- 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.
- Maximum bending load without damage is 50% at capacity.
- For Model IC48, load cell, pull plate and adapter are calibrated as a unit.
- 11-point test is defined as 20% increments for increasing and decreasing load with one zero return reading (e.g. 0%, 20%, 40%, 60%, 80%, 100%, 80%, 60%, 40%, 20%, 0%)

How to Order

Combine the order code, the range code and the options code.

Sample Code: **AL121** **CV** **30b**
 Order Code Range Code Options Code