

# Imperial Class Tension & Compression Load Cells

## Model IC48

ULTRA PRECISION 0.02%

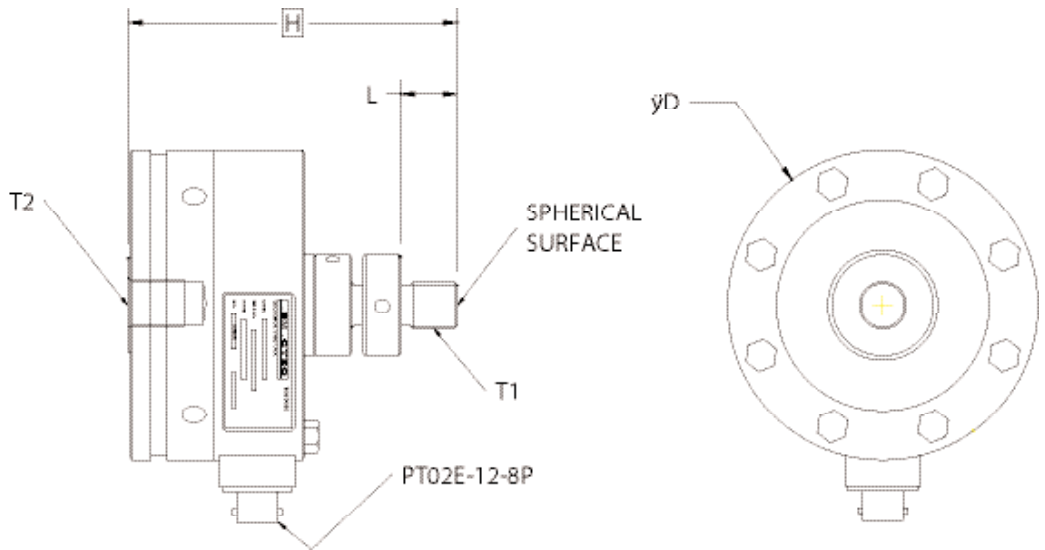
DESIGNED AS CALIBRATION REFERENCE STANDARDS

ULTRA HIGH STABILITY

OPTIONAL ASTM E74 CALIBRATION



Sensotec's Calibration Class ultra high accuracy load cells are calibrated and traceable to NIST. These stainless steel hermetically sealed rugged standards are designed for use in the metrology lab and as reference standards when calibrating other load cells. The Model 48 load cells are designed for low creep, high stability and high immunity to eccentric loads. The load cell comes complete with a factory installed pull plate and a calibration adaptor to ensure high repeatability when using the load cell in a test frame.



## Model 48 Order Code AL121

Range	D"	H"	L"	T1"	T2"
500	4.13	4.38	.75	5/8-18 UNF-3A	5/8-18 UNF-3B
1,000	4.13	4.38	.75	5/8-18 UNF-3A	5/8-18 UNF-3B
2,000	4.13	4.38	.75	5/8-18 UNF-3A	5/8-18 UNF-3B
5,000	4.13	4.38	.75	5/8-18 UNF-3A	5/8-18 UNF-3B
10,000	6.06	6.38	1.50	1-1/4-12 UNF-3A	1-1/4-12 UNF-3B
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

1-800-848-6564

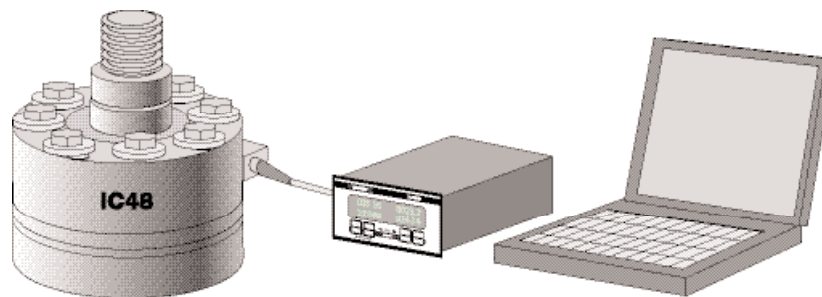
Honeywell  
Sensotec Sensors

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## General Information

<b>PERFORMANCE</b>	Range* .....	500*, 1000,	10,000			
		2000	5,000	25,000	50,000	100,000
	Output, standard (mV/V)** .....	2.0	2.0	2.0	2.0	2.0
	Static error band ( $\pm\%$ F.S.) <sup>1</sup> .....	0.02	0.03	0.03	0.03	0.05
	Non-Linearity ( $\pm\%$ F.S.) <sup>2</sup> .....	0.02	0.03	0.04	0.04	0.05
	Hysteresis ( $\pm\%$ F.S.) <sup>2</sup> .....	0.02	0.04	0.04	0.05	0.05
	Non-Repeatability ( $\pm\%$ F.S.) <sup>2</sup> .....	0.005	0.005	0.005	0.005	0.005
	Creep, 20 min (%) .....	0.01	0.01	0.01	0.01	0.01
Eccentric Load Sensitivity ( $\pm\%$ /in.) .....	0.1	0.1	0.1	0.1	0.1	
<b>ENVIRONMENTAL</b>	Temperature, Operating .....			-65° to 200° F		
	Temperature, Compensated .....			30° to 130° F		
	Temperature Effect					
	- Zero (max) .....			.0008		
- Span (max) .....			.0008			
<b>ELECTRICAL</b>	Excitation, Calibrated (VDC) .....			10		
	Bridge Resistance, nominal .....			350		
	Zero Balance ( $\pm\%$ F.S.) .....			0.5		
	Insulation Resistance .....			5000 @ 50 VDC		
	Wiring Code Standard .....			#39 see appendix		
	Electrical Termination .....			MS3112E-12-8P		
	Mating Connector (optional) .....			MS3116A-12-8S		
<b>MECHANICAL</b>	Deflection @ Full Scale (in) .....	0.001	0.002	0.002	0.002	0.002
	Static Overload Capacity ( $\pm\%$ F.S.) .....	300	300	300	300	300
	Ringing Frequency (kHz) .....	2.4,3,4,6,8	9.1	5.7,7.0	6.3	4.5
	Weight (lbs) .....	7	7	22	48	133

## Typical System Configuration



Typical system set up showing signal conditioning and display unit calibrated as a system with the load cell. Also shown is a laptop computer running Sensotec load cell calibration software.

## General Information

\* Other size/range/output configurations available. Consult factory.

\*\* 500 lb range has 700 Ohm bridge resistance

1. Static error band is the guaranteed 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. Values noted are typical values but fall within the static error band. Removal of these components may invalidate calibration.
3. Off-axis loading maximum allowable 50% of F.S.

For the Imperial Class Model IC48 the load cell and pull plate are calibrated as a unit.

Options: Calibration types: ASTM E74, tension (standard), tension & compression or compression only.