ENCARDIO RITE

STRAIN GAGE TYPE HIGH CAPACITY COMPRESSION LOAD CELL

Model ELC-150S-H

INTRODUCTION

Encardio-rite model ELC-150S-H load cell is extensively used for compressive load measurement during testing of piles. For testing of piles at loads greater than 12,500 kN, more than one load cell can be used.

The Encardio-rite model ELC-150S-H is a resistive strain gage type precision engineered, high capacity load cell designed to measure large compressive load or axial forces. It is specially designed for civil engineering applications. It is available in capacities ranging from 5000 kN to 12500 kN.

FEATURES

- Rugged & robust construction
- Specially designed to suit harsh & severe industrial environment
- Temperature compensated
- Stable system with no moving parts and linkages
- Sixteen strain gages incorporated to reduce positioning effect
- Any standard strain gage bridge measuring read-out device can be used

OVERVIEW

The compression strain gage load cell comprises of a columnar element of high strength martensitic stainless steel. The sensor utilizes sixteen 350 Ohm resistance strain gages, wired to form a 1400 Ohm bridge. To minimize the effect of uneven and eccentric loading, the strain gages are equally spaced along the circumference. Load applied to the cell can be measured by using any standard digital read-out unit suitable for resistance strain gage applications.

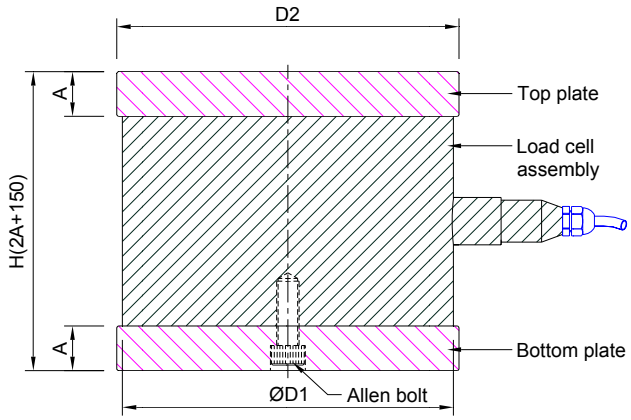
The load cell has great resistance to extraneous forces and is protected against dust, moisture and adverse environmental conditions.

The sectional area of the element is varied in the different capacity load cells to give approximately the same millivolt output for a variation of zero to full load.

APPLICATIONS

- To determine load in experimental research, pile testing and measurement of thrust of rocks
- Compressive load measurement between structural members

DIMENSIONS



ORDERING INFORMATION

Model **ELC-150S-H- X**

Capacity kN

SPECIFICATIONS

SPECIFICATIONS	
Type	Resistive strain gage
Range (kN)	5000, 6000, 7500, 10000, 12500
Over range capacity	120 % with a maximum upto 14000 kN
Non linearity	± 1 % fs
Output	1.5 mV/V ± 10 %
Excitation	10 V DC (max. 20 VDC)
Terminal resistance	
Input	1540 Ohm ± 5 %
Output	1400 Ohm ± 1 %
Temperature limit	-20 to 80°C
Cable connection	Four core shielded 5m long/or as specified
Required accessories	Portable read-out unit/ Logger

**All specifications subject to change without prior notice*

Capacity kN	High capacity compression load cell			Load distribution/bearing plate		
	D1(OD) mm	Ht. mm	Wt. kg	Ht. (A) mm	Size mm	Wt. kg (One plate)
5000	217	150	34	32	200X200	11
6000	217	150	36	32	200X200	11
7500	248	150	44	32	250X250	16
10000	278	150	58	50	Φ285	26
12500	293	150	68	50	Φ300	28

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