



ENCARDIO RITE



COMPRESSION TYPE LOAD CELL

MODEL ELC-210A

OVERVIEW

The Encardio-rite model ELC-210A series load cell is heavy duty, precision load cell, specially designed to meet the increasing demand in load measurement with high degree of accuracy and reliability. The load cell is ideally suited for measurement of compressive load or forces. Model ELC-210A series load cell find extensive use in thermal power projects, power plants, steel plants, cement plants, chemical plants, fertilizer plants, experimental research programs.



The internal construction of this type of load cell is columnar type. The element of load cell is of SS 420. The element is hardened to give better yield strength properties. The electron beam welded sensor utilizes precision bonded foil strain gages connected in a simple wheatstone bridge circuit by using special epoxy cements which are very reliable. The output is derived from imbalances in the bridge circuit as pressure is sensed by the sensor. Typically the bridge circuit is excited by 10 V DC to give a full scale pressure output of around 2 mV/V.

All the Encardio-rite make load cells pass rigorous tests before being duly certified by our independent Quality Assurance Division. All its

FEATURES

- ♦ Outstanding reliability.
- ♦ Long term stability.
- ♦ Very low deflection.
- ♦ Bridge resistance 700 Ohms.
- ♦ Side and eccentric load effect negligible.
- ♦ Specially suitable for weighbridge & hopper weighing applications.
- ♦ Hermetically sealed under a vacuum of 1/1000 torr by Electron beam welding.

APPLICATIONS

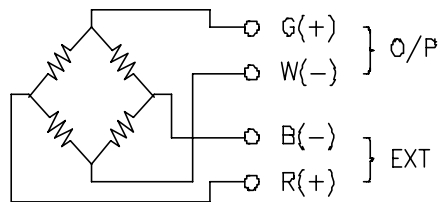
- ♦ To determine load in tank, hopper, silo and bunker weighing systems.
- ♦ Load measurement in thermal power projects, atomic power plants, steel plants, cement plants, chemical plants, fertiliser plants and experimental research programs.
- ♦ Compressive load measurement between structural members i.e. hopper supports and base.
- ♦ Used extensively for obtaining continuous weighing data in process controlled plants.

load cells maintain accuracy traceable to the NPL reference load cells. Encardio-rite load cells have great resistance to extraneous forces, which increases the fatigue life, permits less stringent mounting alignment and reduces the possibility of reading errors. The load cell is protected against dust, moisture and adverse environmental conditions.

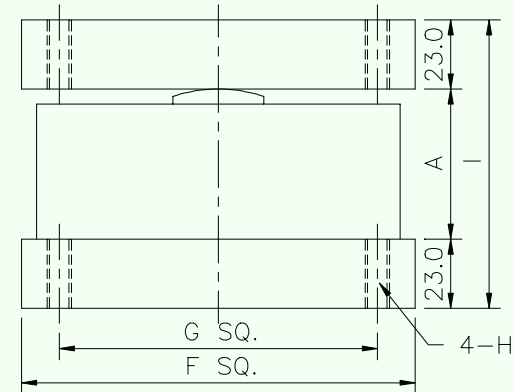
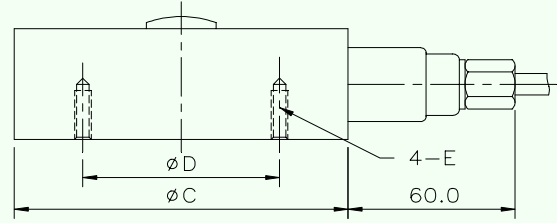
SPECIFICATIONS

Capacity	tf	0.1, 0.2, 0.5, 1, 2, 3, 5, 10, 20, 50
Safe overload		200 % fs
Ultimate Overload		300 % fs
Rated output		2 mV/V \pm 0.1 %
Zero balance		< \pm 0.1 mV/V
Excitation		
Nominal		10 V DC
Maximum		15 V DC
Terminal resistance		
Input		770 \pm 5 % Ohm
Output		700 \pm 1 % Ohm
Insulation resistance		>1000 MOhm at 12 V
Temperature range		
Max. Operative		-20° C to 90° C
Compensated		-10° C to 70° C
Total Error		0.05 % fs
Creep 30 min.		0.03 % fs
Temperature effect		
Zero		0.01 % fs/°C
Span		0.005 % load/°C
Enclosure		IP-67. Sealed under a vacuum of 1/1000 Torr

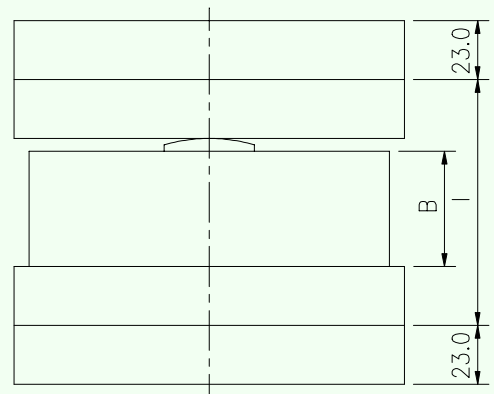
WIRING SCHEMATIC



DIMENSIONAL DETAILS



Two plate system (bolt top & bottom plates to structure)



Four plate system (weld top & bottom plates to structure)

CAPACITY	A	B	C	D	E	F	G	H	I	WEIGHT
0.1 - 0.5 tf	45	40	120	105	4:M6x15	130	105	9	91	3.3 kg
1-20 tf	45	40	120	100	4:M6x20	130	105	9	91	3.3 kg
50 tf	55	50	145	120	4:M10x20	170	135	13	101	6.0 kg

Specifications are subject to change without notice.

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