



DATASHEET

CENTER HOLE LOAD CELL VIBRATING WIRE TYPE

MODEL ELC-32V



OVERVIEW

The Encardio-rite model ELC-32V is a precision vibrating wire load cell with a central cylindrical hole. It is also commonly known as the anchor bolt load cell. It is specially designed for civil engineering applications. The load cell is available in capacities ranging from 250 kN to 2000 kN. Higher capacity load cells and those having an internal diameter different from the standard specified range are available on request.

FEATURES

- Rugged & robust construction.
- Suitable for hostile & severe environment.
- Available in capacities of 250 kN to 2000 kN.
- Frequency signal stable upto long distance.
- Three vibrating wire strain gages incorporated to reduce positioning effect.
- Thermistor provided for temperature correlation.

APPLICATION

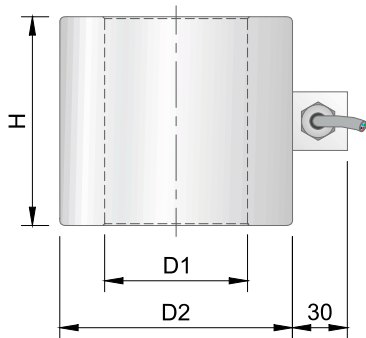
- To determine load in foundation anchors, rock bolts, tiebacks, cables or struts.
- Proof testing and long term performance monitoring of different kind of anchor systems.
- Compressive load measurement between structural members i.e. tunnel supports or at the junction between a beam and the top of a pile strut.
- Used extensively for correlating data obtained from bore hole extensometers.



The center hole load cell comprises of a cylinder of high strength martensitic stainless steel. It generally uses three vibrating wire strain gages mounted at 120° to each other to minimize the effect of uneven and eccentric loading. If specifically required, the load cell can be provided with four or six vibrating wire strain gages.

Load applied to the cell is measured individually by the vibrating wire strain gages using digital read-out unit for vibrating wire sensors. The average of the three readings is taken. The data can also be automatically collected at desired frequency, stored and transmitted to remote server by a suitable datalogger using multiplexer/busmux or SDI-12 digital interface.

DIMENSIONS

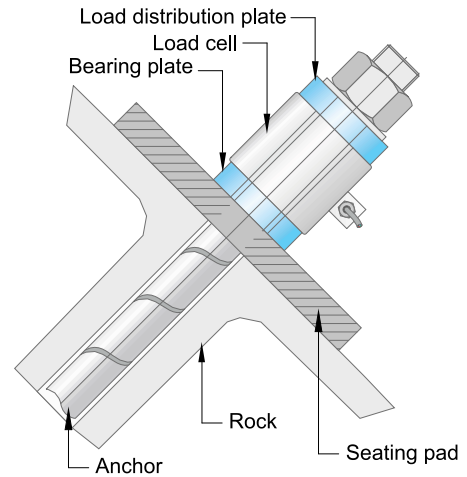


Capacity kN	D1 mm	D2 mm	H mm	Wt. kg
250	27	58	75	1.5
500	52	88	85	3.0
1000	78	127	115	7.5
1500	102	160	120	12.0
2000	127	190	130	16.5
2000	152	210	130	17.5

Capacity kN	Load distribution/bearing plates (each)			
	ID mm	OD mm	T mm	Wt. kg
250	27	60	23	0.5
500	52	95	30	1.2
1000	78	130	35	2.5
1500	102	165	42	4.5
2000	127	195	48	6.7
2000	152	215	48	7.0

Other capacities and internal diameter available on request

MOUNTING ARRANGEMENT



SPECIFICATIONS

Range (kN)/ID (mm)	250/27, 500/52, 1000/78, 1500/102, 2000/127, 2000/152, specify (solid load cell also available on request)
Over range capacity	150 %
Calibration accuracy	± 0.25 % fs
Non linearity	± 1 % fs
Operating temperature	-10° to 80°C
Cable	Six core, 5 m standard length
Material of element	Martensitic stainless steel

ORDERING INFORMATION CODE

Model ELC-32V-X/Y
 ID in mm
 Capacity in kN

*All specifications are subject to change without prior notice