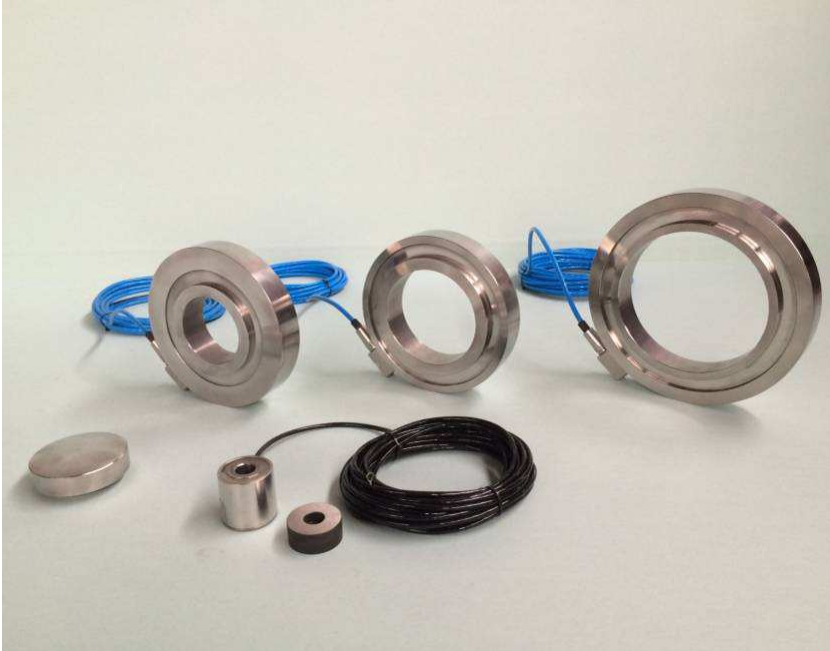


Electric load cells OG150



Areas of application

The load on the cell is an important indication of the state and the functionality of anchorage, showing eventual overloads on the structure.

The load is directly measured by installing a steel plate.

Load cells can be used to:

- measuring tension in cable anchors and rock bolts
- monitoring loads on structural beams
- monitoring load at a centering base

Technical features

The cell is made of a stainless steel cylindrical body equipped with 8 or 16 resistance strain gauges. Strain gauges are equally distributed along the cell and are in a Wheatstone bridge configuration. This instrument is extremely reliable thanks to the material it is made of (100% stainless steel), its IP68 protection, and its excellent thermal compensation. Installation is simple and the chance of a wrong placement is very low, adding to the reliability of this instrument. Cells are compensated for misaligned loads. Internal parts are completely filled up with gel in order to prevent any type of infiltration of moisture and water for a long period of time. When cells are loaded, their strain gauges change their resistance value. Output signal is directly proportional to the applied load. To equally spread the supplied load, cells for tunnels supporting structures are equipped with a spherical distribution plate, while anchor load cells are equipped with bearing plates (where necessary).

Uses

- Monitoring tension in cable anchors
- Monitoring loads in steel supporting structures in tunnels
- Measurement of loads during pile testing
- Monitoring of diaphragms, walls, retaining walls e bulkheads

OTR srl
Organizzazione Tecnici Riuniti

Via Btg. Susa, 36 – 29122 Piacenza
Tel: +39 0523 594290 – Fax: +39 0523 607512
info@otr-geo.it – www.otr-geo.it – P.IVA/CF 00894610153





Technical specifications



| Product Code | OCCELL00200 OCCELL00300 | OCCELL01000 OCCELL01001 OCCELL01500 OCCELL01501 OCCELL02500 | OCENT001000 | OCCELL03000 OCCELL05000 |
|--|---|---|-------------|----------------------------|
| Full scale | 200 – 300 KN | 1000-1500-2000-2500 KN | 1000KN | 3000-5000KN |
| Electrical full scale | 2mV/V/full scale | | | |
| Accuracy | 0.5% full scale | | | |
| Overload | 120-150% full scale | | | |
| Signal output | mV/V Std 4-20 mA (available with 4-20 mA transmitter) | | | |
| Compensated temperature range | from -10° to +50°C | | | |
| Temperature working range | from -10° to +50°C (For tougher temp. ranges special treatments are needed, on request) | | | |
| Material | Stainless Steel | | | |
| Protection | IP 68 | IP68 | IP68 | IP67 |
| Other full scales available on request. | | | | |

Cell dimensions

| Product Code | Capacity (KN) | Internal diameter (mm) | External diameter (mm) | Height (mm) |
|------------------|---------------|------------------------|------------------------|-------------|
| OCCELL00200 (*) | 200 | 18 | 50 | 50 |
| OCCELL00300 (*) | 300 | 35 | 60 | 60 |
| OCCELL01000 | 1000 | 60 | 160 | 40 |
| OCCELL01001 | 1000 | 120 | 200 | 40 |
| OCCELL01500 | 1500 | 120 | 200 | 40 |
| OCCELL01501 | 2000 | 165 | 250 | 40 |
| OCCELL02500 | 2500 | 225 | 300 | 40 |
| OCENT001000 (**) | 1000 | -- | 160 | 70 |
| OCCELL03000 | 3000 | -- | 129 | 175 |
| OCCELL05000 | 5000 | -- | 165 | 230 |

(*) Cell supplied with 2 distribution rings total thickness 20 mm
(**) Cell equipped with a spherical distribution plate diameter 100 mm

Cable: Shielded Cable 4 x 0.25 Standard Colors cable Green Black Red White. on request.

Accessories



Portable readout unit
(Code O0018000001)



Watertight connector
(Code OCONST00000)



4-20 mA transmitter
(Code O00LCE00420)
Inside a Junction box