

L2M0

# — HYDRAULIC ANCHOR

LOAD CELLS

PRESSURE  
& LOAD CELLS



## HYDRAULIC ANCHOR LOAD CELLS

Hydraulic anchor load cells are used to monitor loads in tiebacks, rock bolts and cables. They consist of two ring-shaped stainless steel plates welded together around their circumference. The annular space between the plates is filled under vacuum by deaired oil.

The load is directly measured by a Bourdon manometer connected to the cell body. The manometer is calibrated in laboratory to allow direct readings in KN. Electrical models equipped with pressure transducer is also available for remote readings.

A very stiff distribution plate is supplied, in order to ensure that the load is applied equally over the loading surface of the cell.

### APPLICATIONS

- Retaining walls
- Deep excavations
- Tunneling
- Diaphragm walls
- Tie-backs
- Struts
- Rock bolts
- Landslides

### FEATURES

- Direct readings by Bourdon manometer, no maintenance required
- Electrical conversion for remote readings available
- Rugged and reliable in every environmental condition
- Stainless steel body assure cell long life
- Spashproof design



Model L2E0 meet the essential requirements of the EMC Directive

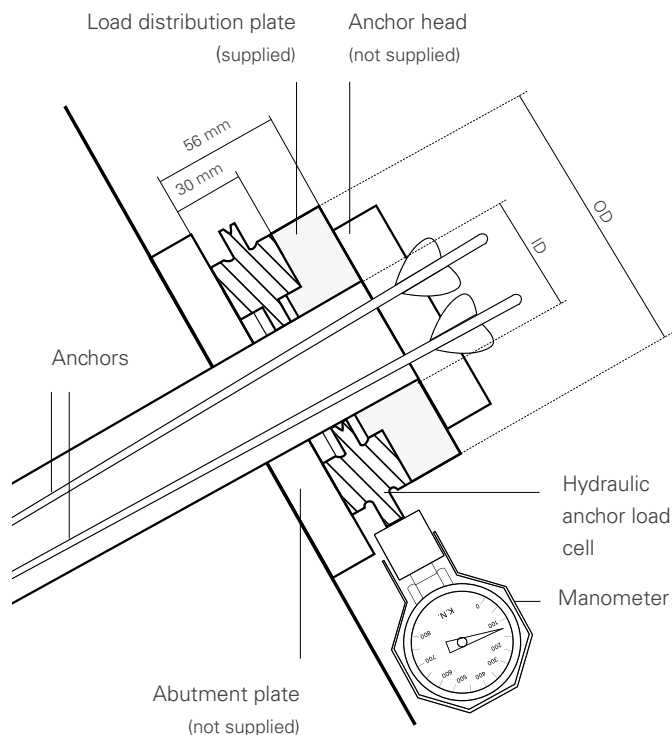
## INSTALLATION RECCOMENDATIONS

Anchor load cells have to be installed with particular care to obtain load bearing surfaces flat and parallel to avoid any significant distortion under load. The specific design of these cells gives a very low sensitivity to the load excentricity. Between the cell and wall surfaces it is usually installed an abutment plate. The plate shall be at least of the same thickness of the distribution plate (30 mm) with diameter at least 20 mm larger than the load cell. Please remember that after the anchor tension phase there is a release due to the settlement of the whole system that generally gives a load decrease of 10-15%.

## GAUGE MANOMETER MODEL OL2M0 INCLUDING LOAD DISTRIBUTION PLATE

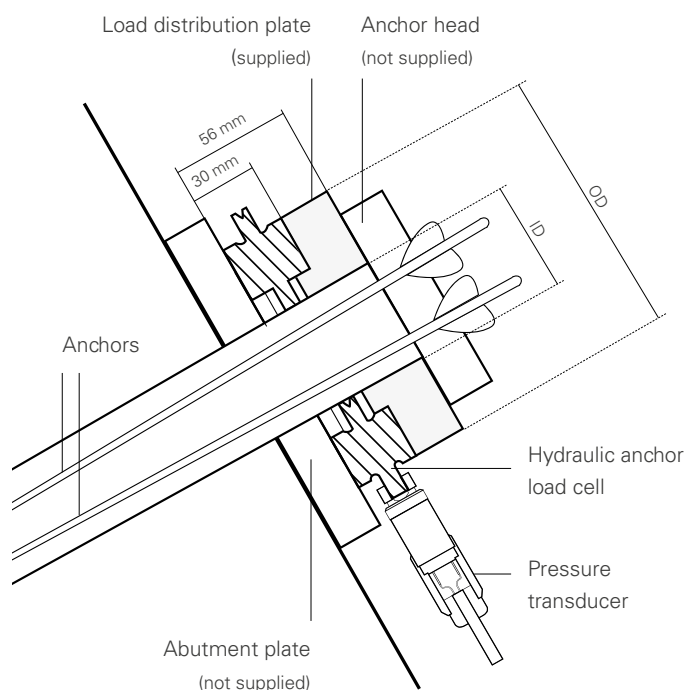
PRODUCT CODE	CAPACITY	ID	OD
OL2M07050H0	500 KN	71 mm	163 mm
OL2M09075H0	750 KN	92 mm	196 mm
OL2M11100H0	1000 KN	110 mm	231 mm
OL2M16150H0	1500 KN	165 mm	293 mm

Standard configuration is with horizontal manometer assembly; vertical configuration is available only on request.



## ELECTRICAL MODEL OL2E0 INCLUDING LOAD DISTRIBUTION PLATE

PRODUCT CODE	CAPACITY	ID	OD
OL2E0705000	500 KN	71 mm	163 mm
OL2E0907500	750 KN	92 mm	196 mm
OL2E1110000	1000 KN	110 mm	231 mm
OL2E1615000	1500 KN	165 mm	293 mm





## TECHNICAL SPECIFICATIONS

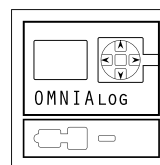
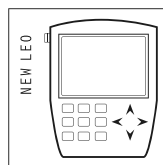
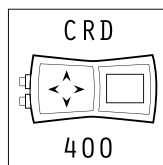
	L2M0 MODEL	L2E0 MODEL
Description	Hydraulic load cell equipped with Bourdon gauge manometer	Hydraulic load cell equipped with electrical pressure transducer
Full scale capacity	from 300 to 1500 KN	from 500 to 1500 KN
Overload	120% with less than 2% FS zeroshift	120% with less than 2% FS zeroshift
Resolution	≤ 0.5% FS	≤ 0.025% FS
Signal output	-	4-20 mA
Accuracy	manometer class ±1.5 % FS	±1% FS
Material	AISI 304 stainless steel	AISI 304 stainless steel
Temperature drift	0.25 KN/°C	0.05 F.S./°C
Distribution plate OD	equal to the cell loading area	equal to the cell loading area
Compensated temperature range	-35°C + 60°C	-35°C + 60°C



Retaining wall in Sochi area - Russia

## READABLE BY

ONLY FOR OL2E MODEL



For further information refer to their own datasheets

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