



# INSTRUCTION MANUAL

## HYDRAULIC LOAD CELL

### Model HYDLO

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This product should be installed and operated only by qualified personnel. Its misuse is potentially dangerous. The Company makes no warranty as to the information furnished in this manual and assumes no liability for damages resulting from the installation or use of this product. The information herein is subject to change without notification.

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# 1 APPLICATIONS

The HYDLO Hydraulic Load Cell is designed for direct measurement of loads in tiebacks, foundation anchors, rockbolts, struts or tunnel supports.

# 2 DESCRIPTION

The HYDLO consists of a sealed cell composed of two plates welded together around the periphery, and filled with de-aired oil. The cell is directly connected to a pressure gage. The load applied to the cell induces an oil pressure variation, which is sensed by the gage. The compact size of the HYDLO eases installation and allows for quick and simple readings.

Two configurations of HYDLO are available. To monitor a tensile load, a hollow center cell enables the passage of an anchor through the cell. To monitor a compressive load, a solid center cell is used.

With both of these configurations, remote pressure reading is available by connecting the cell with a flexible tubing to a remote vibrating wire, electrical 4-20 mA, or hydraulic pressure transducer. This optional feature suits situations where access to the cell is difficult.

The HYDLO can accommodate small inclinations in loading. Larger misalignments should be compensated with the use of spherical seats.



**Figure 1 Model HYDLO Load Cell**

### 3 SPECIFICATIONS

<b>MODEL:</b>	<b>HYDLO-250</b>	<b>HYDLO-500</b>	<b>HYDLO-750</b>	<b>HYDLO-1000</b>	<b>HYDLO-1500</b>	<b>HYDLO-2000</b>	<b>HYDLO-5000</b>
<b>ACCURACY:</b>	±1% F.S.						
<b>TEMPERATURE SENSIBILITY:</b>	0.1% per degree Celsius						
<b>OPERATING TEMPERATURE:</b>	-20°C to +60°C						
<b>OVERLOAD:</b>	20% of Rated Capacity						
<b>CAPACITY (kN):</b>	250	500	750	1000	1500	2000	5000
<b>DIMENSIONS (in mm)</b>							
<b>A:</b>	35	50	75	105	105	135	160
<b>B:</b>	123	144	180	219	244	265	380
<b>C:</b>	144	162	202	236	261	288	408
<b>CELL THICKNESS:</b>	28	28	28	28	30	30	50
<b>DISTRIBUTION PLATE THICKNESS:</b>	30	40	40	45	45	65	85
<b>PROTECTIVE HOUSING:</b>	70 x 115 x 162 high						

\* The solid center HYDLO O.D. can be smaller than indicated above.  
 Note: Specifications may change when HYDLO is fitted with optional pressure transducer.

### 4 INSTALLATION

Model HYDLO Load Cells should be installed between flat plates (distribution and bearing plates) normal to the loading direction. Even though being a robust instrument, the HYDLO must be protected against damage.

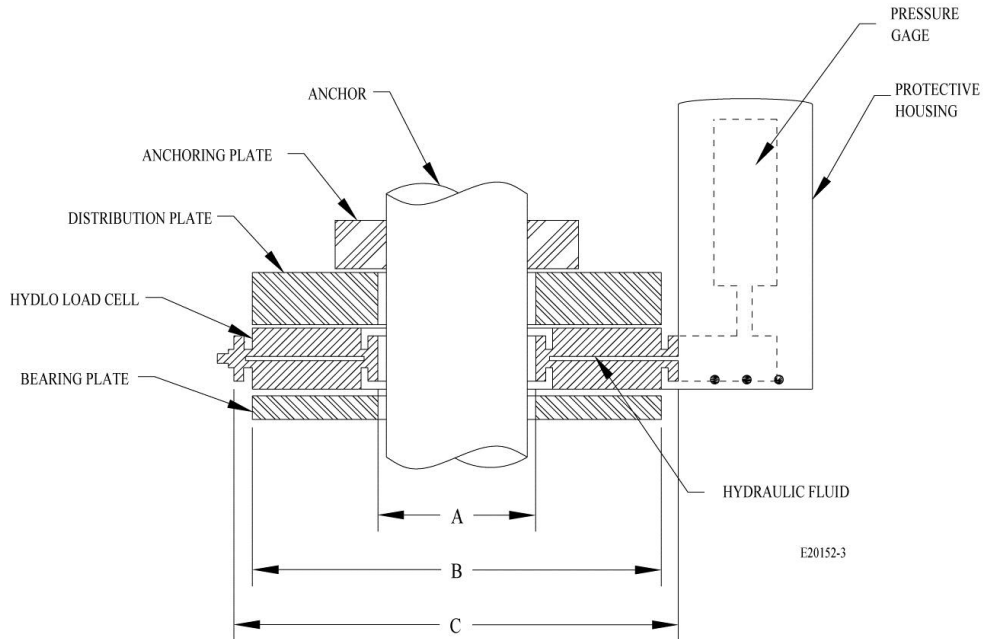


Figure 2: Typical Installation of the HYDLO