

HYDRAULIC TOROIDAL LOAD CELL

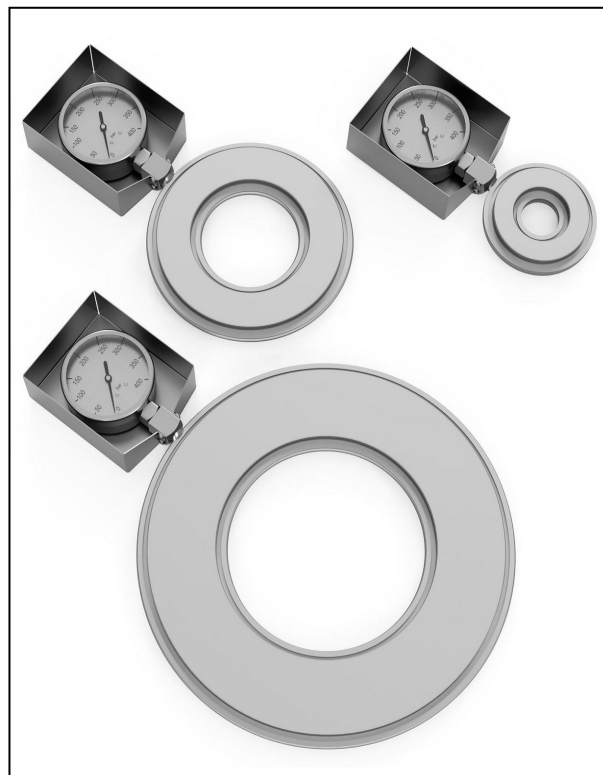
Description

The hydraulic toroidal load cell measures the variations of load to which tension rods and anchors are subjected, this way it allows to evaluate the possible losses for release during the exercise or the pressure increase caused by the thrust of the ground on the containment structures.

The cell consists of two circular steel plates, with a central hole to allow the passage of the strands, lathed and welded together in such a way as to create an interspace, filled by a special oil and connected to a precision pressure gauge, that displays the measurement. A calibration certificate is supplied with each cell and can transform the pressure measurement into a load.

Applications

- Monitoring of retaining walls and excavations
- Force measurement applied to anchors, tie rods, bolts, etc.
- Measurement of compression loads between structural elements (e.g. between a beam and the top of a foundation pile)



Features

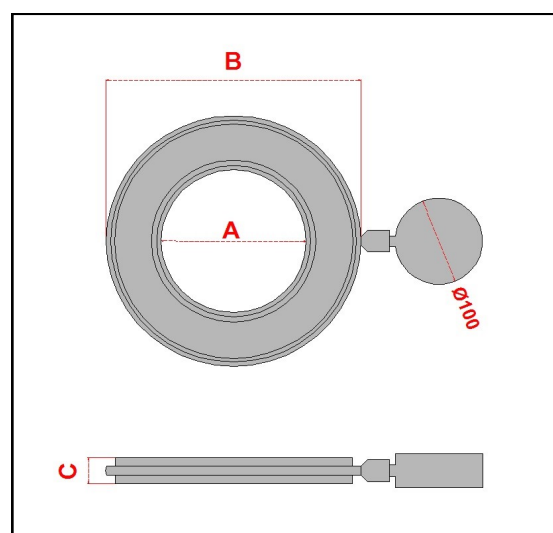
- Reliability on long time monitoring
- Direct measurement by pressure gauge
- Centralized measurement using pressure transducers
- Reliability of the measurements also for eccentric loads
- Sturdy construction, also suitable for harsh environments
- Low sensitivity to thermal variations

Technical specifications

	Model with pressure gauge	Model with transducer
Range	From 250 KN to 2500 KN	From 250 KN to 2500 KN
Total accuracy	< 1% F.S.	< 1% F.S.
Output signal	Bourdon spring pressure gauge (in bar)	4-20 mA
Resolution	0.5% F.S.	0.1% F.S.
Working temperature	-20.....+60 °C	-20.....+60 °C
Temperature drift	+/- 0.4% F.S./10°C	+/- 0.05% F.S./°C
Material	AISI 304 Stainless steel	AISI 304 Stainless steel
Degree of protection	IP67	IP67
Dimensions	see table	see table

Accessories and spare parts

- Load distribution plate
- Possibility to produce cells with dimensions and F.S. upon request
- Cut to size signal cable for model with trasducer



Please specify

F.S. in KN (nominal)	MODEL WITH PRESSURE GAUGE	MODEL WITH TRANSDUCER	DISTRIBUTION PLATE
250	CTM-040	CTM-604	CTM-340
500	CTM-071	CTM-607	CTM-371
750	CTM-092	CTM-609	CTM-392
1000	CTM-110	CTM-610	CTM-410
1250	CTM-130	CTM-613	CTM-430
1500	CTM-165	CTM-665	CTM-465
2000	CTM-190	CTM-669	CTM-490
2500	CTM-225	CTM-670	CTM-525

DIMENSION TABLE

MODEL	A (mm)	B (mm)	C (mm)	WEIGHT (Kg)
CTM-040	40	134	30	3
CTM-071	71	170	30	3,5
CTM-092	92	206	30	5,2
CTM-110	110	236	30	6,2
CTM-130	130	265	30	8,5
CTM-165	165	302	30	11
CTM-190	190	344	30	15
CTM-225	225	390	30	18

For further information:

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