

ELECTRIC LOAD CELLS

Load cells can be used to:

- measuring tension in *CABLE ANCHORS* and *ROCK BOLTS*
- monitoring loads on *STRUCTURAL BEAMS*
- monitoring loads in *ARCH TUNNEL SUPPORTS*



The cell consists of a stainless steel low profile cylindrical housing with 8/16 resistance strain gauges in a wheatstone bridge configuration equally spaced. This layout minimizes the sensitivity to eccentric loads. When the cell is subjected to load the strain gauges will change their resistance value. The output signal is directly proportional to the applied load. To equally spread the load, steel arch tunnel supports cells are equipped with a spherical distribution plate, while anchor load cells are equipped with bearing plates (where necessary).

APPLICATIONS

- Monitoring tension in cable anchors
- Monitoring loads in steel arch tunnel supports
- Measurement loads during pile testing
- Monitoring of diaphragms walls, retaining walls e bulkheads



TECHNICAL SPECIFICATIONS

	ANCHOR LOAD CELL	STEEL ARCH TUNNEL SUPPORT LOAD CELL	COMPRESSION LOAD CELL
			
Product code	<i>CRR500100000 (0-1000 kN)</i> <i>CRR120150000 (0-1500 kN)</i> <i>CRR165180000 (0-1800 kN)</i> <i>CRR225250000 (0-2500 kN)</i>	<i>CRR50F100000 (0-1000 kN)</i>	<i>CMX030000000</i> <i>CMX050000000</i>
Capacity Ranges	300-1000-1500-1800-2500 kN	1000 kN	3000 – 5000 kN
Electric Full scale		2.0 mV/V	2.0 mV/V
Accuracy		± 0.08% FS	± 0.1% FS
Repeatability		± 0.02% FS	± 0.02% FS
Over Range Capacity		150%	150%
Signal output		mV/V standard (4-20mA on request)	mV/V standard (4-20mA on request)
Compensated temperature range		-10 to +50 °C	-10 to +50 °C
Input resistance		700 ± 20 Ω	700 ± 20 Ω
Output resistance		700 ± 5 Ω	700 ± 5 Ω
Excitation		10 VDC	10 VDC
Operating temperature range		-20°C to +70 °C	-20°C to +70 °C
Material		Stainless steel 17-4PH	Stainless steel 17-4PH
Ingress protection		IP 68	IP 67

Other full scale available on request.

MODEL	CAPACITY (kN)	INTERNAL DIAMETER (mm)	OUTSIDE DIAMETER (mm)	HEIGHT (mm)
<i>CRR500100000</i>	<i>0-1000</i>	<i>50</i>	<i>163</i>	<i>45</i>
<i>CRR120150000</i>	<i>0-1500</i>	<i>120</i>	<i>229</i>	<i>45</i>
<i>CRR165180000</i>	<i>0-1800</i>	<i>165</i>	<i>275</i>	<i>45</i>
<i>CRR225250000</i>	<i>0-2500</i>	<i>225</i>	<i>320</i>	<i>45</i>
<i>CRR50F100000</i>	<i>0-1000</i>	<i>-</i>	<i>163</i>	<i>45</i>
<i>CMX030000000</i>	<i>0-3000</i>	<i>-</i>	<i>129</i>	<i>175</i>
<i>CMX050000000</i>	<i>0-3000</i>	<i>-</i>	<i>165</i>	<i>230</i>

ACCESSORIES

<i>TRM420MA2F00</i>	<i>4-20 mA transmitter 2 cores, 12-24 VDC excitation.</i>
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Product specifications described herein are subject to change without notification.

Ingegneria & Controlli Italia S.r.l.

Sede legale
Sedi operative

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