

Ring Torsion Load Cell

FEATURES

- Capacity range: 250 kg to 60 ton
- Low profile, stainless steel construction
- Hermetically sealed, IP66 and IP68
- Meets OIML R-60 and NTEP 6000d
- Outputs are matched to ensure easy and accurate parallel connection of multiple load cells
- Optional
 - ATEX certified versions are available for use in potentially explosive atmospheres
 - Multi-interval and multiple-range versions are available



APPLICATIONS

- Platform scales
- Belt scales
- Silo hopper weighing

The fully welded construction and glass-to-metal cable-entry ensure that this product can be used successfully in harsh environments found in the food, chemical and allied process industries.

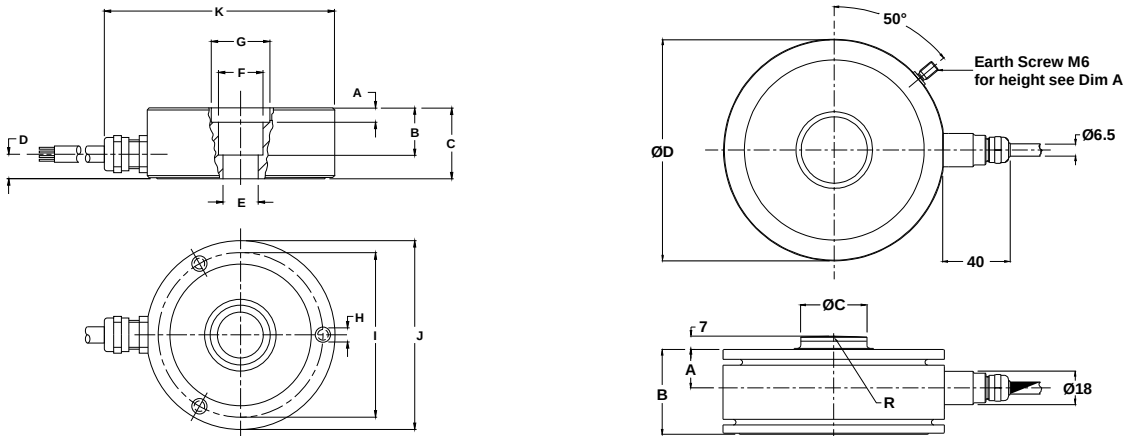
DESCRIPTION

The RLC is a low profile, high performance stainless steel ring torsion type load cell.

This product is suitable for small and medium platform scales, hoppers and process weighing.

This product meets the stringent Weights and Measures requirements throughout Europe and USA.

OUTLINE DIMENSIONS in millimeters



CAPACITY (T)	0.25, 0.5, 1	2, 3.5, 5	10		CAPACITY (T)	28	60
A	1.0	6.0	-	Cable specifications Cable length: 3m for 0.25–1T, 5m for 3–10T, 10m for 28T, 15m for 60T Excitation + Pink Excitation – Grey Output + Brown Output – White Cable screen is connected to load cell body. For capacities 28 and 60 ton cable screen is not connected to body.	A	21	28
B	15.0	20.0	14.8		B	46	62
C	25.0	30.0	35.0		C	35.9	47.9
D	9.5	8.5	10.0		D	120	140
E	M10	15 H7	Ø24.9		R	400	600
F	Ø19	Ø19	Ø29.1				
G	Ø25	Ø25					
H	M6 (3X120°) 8 Deep						
I	Ø70	Ø70	Ø83				
J	Ø80	Ø80	Ø95				
K	97.5	97.5	112.5				

SPECIFICATIONS					
PARAMETER	VALUE				UNIT
Standard capacities (E_{max})	0.25, 0.5, 1, 2, 3.5, 5, 10, 28, 60				ton
Accuracy class according to OIML	NTEP IIIIL	D3	C3 ⁽³⁾	C6 ⁽²⁾	
Maximum no. of verification intervals (nlc)	10000		3000	6000	
Minimum verification interval			$E_{max}/10000$	$E_{max}/15000$	
Minimum verification interval type MR			$E_{max}/20000$ ⁽¹⁾	$E_{max}/28000$	
Rated output (=S)	2 (1.75 for 0.25T, 2.05 for 10T)				mV/V
Output accuracy for multiple LC systems	0.01				±% mV/V
Zero balance	1.0				±% FSO
Combined error	0.0200	0.0300	0.0230	0.0115	±% FSO
Creep error (30 minutes)			0.0245	0.0123	±% FSO
Temperature effect on zero	(0.0010)	(0.0010)	0.0070	0.0045	±% FSO/5°C (°F)
Temperature effect on sensitivity (output)	(0.0008)	(0.0008)	0.0050	0.0025	±% FSO/5°C (°F)
Minimum dead load	0				% E_{max}
Maximum safe overload	150				% E_{max}
Ultimate overload	300				% E_{max}
Maximum safe side load	100% up to 10 ton 50% for 28 & 60 ton				% E_{max}
Deflection at E_{max}	0.12–0.20				mm
Excitation voltage	5 to 15				V
Maximum excitation voltage	30				V
Input resistance	1110±50 (1100±50 for 0.25T and 10T) 1075±100 for 28T 1350±100 for 60T				Ω
Output resistance	1025±25 (1025±50 for 0.25T and 10T) 930±0.5 for 28T 1175±0.5 for 60T				Ω
Insulation resistance	≥5000 (20 for 28 and 60T)				MΩ
Compensated temperature range	-10 to +40				°C
Operating temperature range	-30 to +70				°C
Storage temperature range	-50 to +80				°C
Element material (DIN)	Stainless steel 1.4542				
Sealing (DIN 40.050 / EN60.529)	IP66 and IP68				
Recommended torque on fixation bolts	12 to 14				N*m
ATEX opt. for potent. explosive atmospheres	II2G EEx ib IIC T4/T6, II2D, IIID T70 II3G nA II T4/T6				

⁽¹⁾ Capacities of 28 and 60 ton $E_{max}/15,000$ approved to OIML C3 only

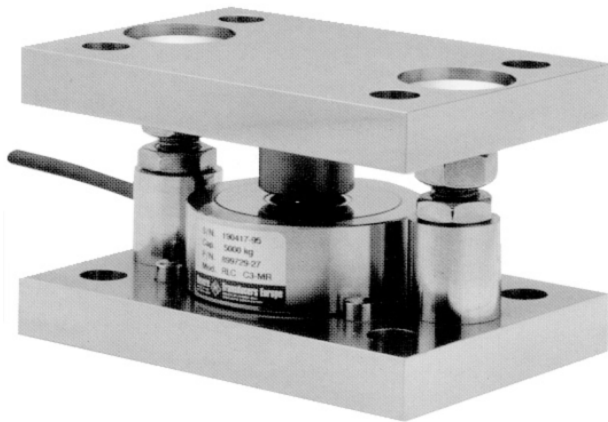
⁽²⁾ 250 kg and 10 ton capacities are approved to OIML C3 only. Maximum application range for 0.5T is $0.75 \cdot E_{max}$.

⁽³⁾ The following accuracy classes are available (from 0.5T to 10T): C3MI6 and C3MI7.5. Minimum dead load output return is $\frac{1}{2} E_{max}/6000$ and $\frac{1}{2} E_{max}/7500$ respectively

FSO—Full Scale Output

All specifications subject to change without notice.

RLC Self Aligning Silo-Mount Accessories



FEATURES

- Capacities: 0.25 - 10t
- Hardened components at all load bearing surfaces
- Rocker pin load introduction
- Stainless steel construction
- Built-in horizontal movement control and lift-off protection
- Load cell (re)placement after installation of the mount

DESCRIPTION

The RLC self aligning silo mount, combined with the RLC load cell family, provides weighing assemblies suitable for process control, batch weighing, silo/hoppers and belt scale applications.

The RLC self aligning foot assembly is an ideal solution for medium capacity platform scales and belt scale applications.

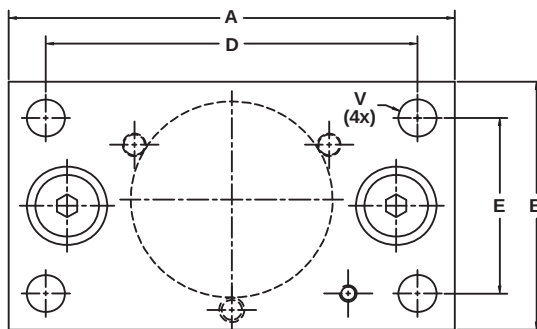
The RLC mount and foot are based on a rocker pin design, combining excellent load introduction to the transducer with an overall low profile. Hardened stainless steel components are used at all bearing surfaces.

The fully stainless steel construction guarantees long term reliability, even in the most harsh of environments.

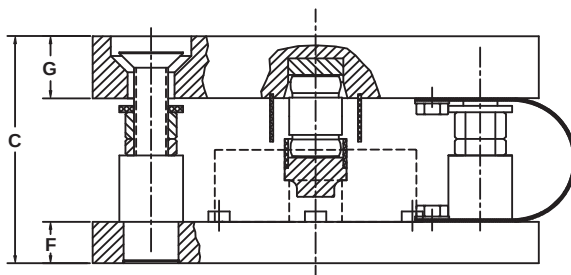
APPLICATIONS

- Process control
- Batch weighing
- Silo/hopper weighing
- Belt scale weighing

OUTLINE DIMENSIONS in mm



Capacity	0.5t, 1t	2t, 3.5t, 5t	10t
A	150	160	210
B	100	110	120
C	75	100	110
D	120	120	175
E	70	70	85
F	15	20	20
G	20	20	30
V	Ø13	Ø16	Ø18



Further information:

Self Aligning Silo-Mount	0.25 - 1t	2 - 5t	10t
Height, mount assembly + RLC	75	100	110
Outline drawing	899043-00	899045-00	499094-10
Mount assembly guideline	AG 05/7-100/01	AG 05/7-100/01	-
Self Aligning Feet	0.25 - 1t	2 - 5t	10t
Outline drawing non-adjustable foot	899041-00	899042-00	-
Height of non-adjustable foot + RLC	50	85.2	-
Outline drawing adjustable foot	499083-00	499084-00	499093-00
Height of adjustable foot + RLC	60+5	92.6+5	120.2+5

Height Adjustable Foot

This stainless steel foot, which has 5mm of height adjustment, provides excellent load introduction to the load cell. The foot allows flexibility in platform design without compromising overall system performance.

**Non Adjustable Foot**

The non-adjustable, stainless steel foot carries the same specifications as the height adjustable version, while providing an even lower profile.

