SREEKA
MAKER OF INNOVATIVE PRODUCTS

RING TORSION LOAD CELL

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The RTN Load Cell is a high-capacity compression load sensor designed for heavy-duty industrial weighing applications. Its robust construction and hermetically sealed design ensure exceptional performance and reliability in harsh environments, making it ideal for weighbridges, silo weighing, and other demanding applications.

KEY FEATURES

- ✓ High-capacity compression load cell for extreme loads.
- ✓ Hermetically sealed stainless steel design for superior corrosion resistance.
- ✓ High accuracy with minimal deflection and sensitivity to side loads.
- ✓ Compatible with modern control systems for real-time weight monitoring.
- ✓ Temperature-compensated for stable performance in fluctuating environments.

APPLICATION:

- ➢ Weighbridges and truck scales for heavy vehicle monitoring.
- ➢ Silo and tank weighing in industrial and agricultural sectors.
- ➢ High-capacity industrial process weighing systems.
- ➢ Structural load monitoring in civil engineering projects.
- ➢ Material handling and bulk weight monitoring in warehouses.

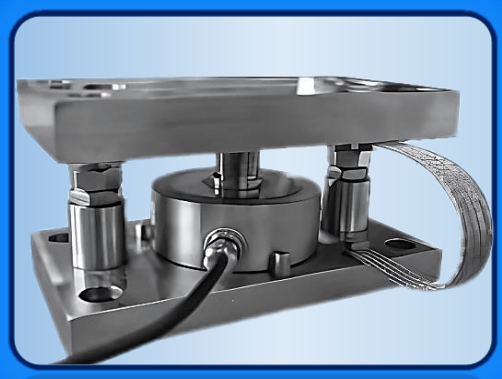
QUICK GUIDE

Mounting Suitability:

- ❖ Suitable for use in weighbridges, silo weighing, and tank weighing systems.
- ❖ Ensure proper alignment of the load for precise force measurement.

Connection Compatibility:

- ❖ Compatible with advanced weighing indicators, amplifiers, and PLC systems.
- ❖ Available with customizable cable lengths for tailored integration.



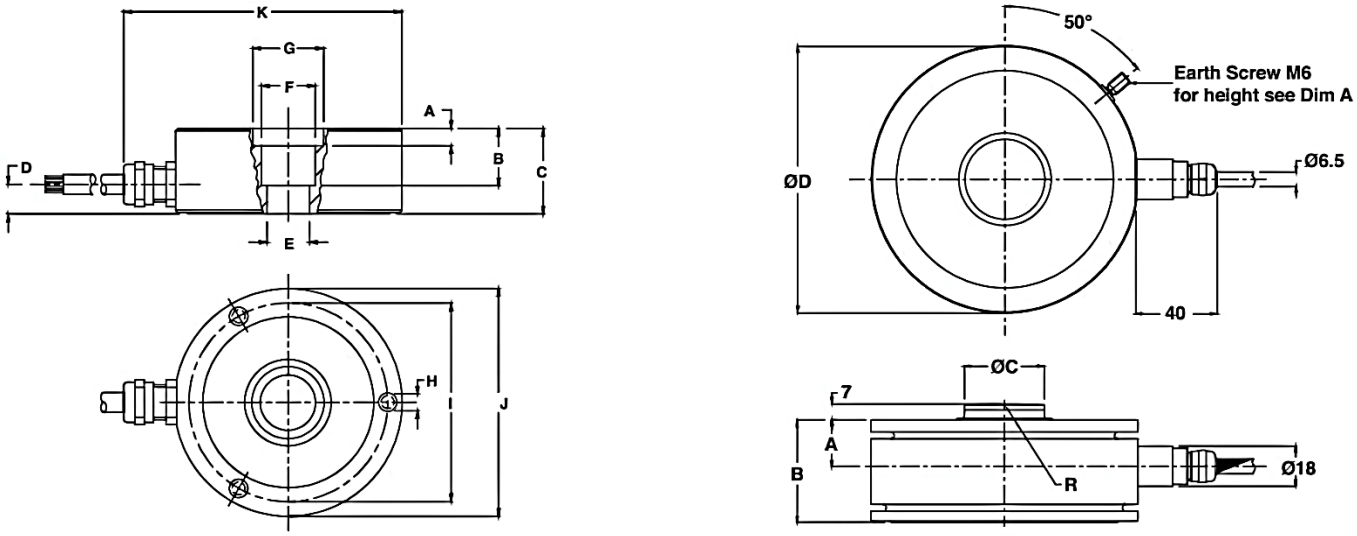
TECHNICAL SPECIFICATION

PARAMETER	VALUE				UNIT
PERFORMANCE					
Rated Load (E_{max})	0.25, 0.5, 1, 2, 3.5, 5, 10, 28, 60				t
Sensitivity	2 (1.75 for 0.25 t, 2.05 for 10 t)				mV/V
Output accuracy for multiple LC systems	± 0.01%				mV/V
Creep Error 30 min	±0.02				% of rated output
Zero Balance	±1				% of rated output
Accuracy class according to OIML	NTEP IIIL	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	
Combined error	±0.0200	±0.0300	±0.0230	±0.0115	% of rated output
Creep error (30 minutes)			±0.0245	±0.0123	% of rated output
TEMPERATURE					
Temperature Effect on Zero	±0.0010	±0.0010	±0.0070	±0.0045	% of rated output/5°C(/°F)
Temperature effect on sensitivity (output)	±0.0008	±0.0008	±0.0050	±0.0025	% of rated output/5°C(/°F)
Storage temperature range	-50 to +80				°C
Compensated temperature range	-10 to +40				°C
Operating Temperature Range	-30~+70				°C
ELECTRICAL					
Input Resistance	1110 ± 50 (1100±50 for 0.25 t and 10 t) 1075 ± 100 for 28 t 1350 ± 100 for 60 t				Ohms
Output Resistance	1025 ± 25 (1025±50 for 0.25 t and 10 t) 930 ± 0.5 for 28 t 1175 ± 0.5 for 60 t				Ohms
Insulation Resistance	≥5000 (20 for 28 and 60 t)				Mega-Ohms
Recommend Excitation	10~15				VDC
Maximum Excitation	30				VDC
MECHANICAL					
Maximum Safe Over Load	150				% of R.C
Minimum Dead Load	0				% of R.C
Ultimate Over Load	300				% of R.C
Maximum Safe Side Load	100% up to 10 t; 50% for 28 & 60 t				% of R.C
Deflection at E_{max}	0.12–0.20				mm

Recommended Torque on Fixation Bolts	12 to 14	N*m
Load Cell Material	Stainless Steel	
Sealing (DIN 40.050 / EN60.529)	IP66 and IP68; IP69K available for 250 kg, 5 t and 10 t	

*All specifications listed subject to change without notice.

DIMENSION DETAILS

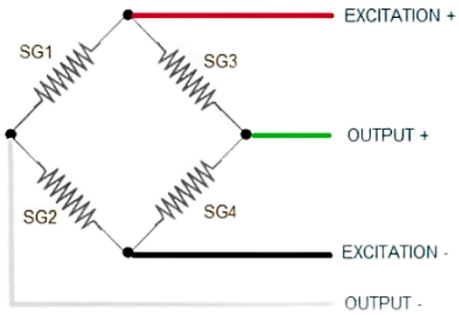


*All dimensions in mm | Subject to technical changes | Dimensions of other capacities on request.

CAPACITY (T)	A	B	C	D	E	F	G	H	I	J	K
0.25, 0.5, 1	1.0	15.0	25.0	9.5	M10	Ø19	Ø25	M6 (3X120°) 8 Deep	Ø70	Ø80	97.5
2, 3.5, 5	6.0	20.0	30.0	8.5	15 H7	Ø19	Ø25	M6 (3X120°) 8 Deep	Ø70	Ø80	97.5
10	-	14.8	35.0	10.0	Ø24.9	Ø29.1	-	M6 (3X120°) 8 Deep	Ø83	Ø95	112.5

CAPACITY (T)	A	B	C	D	R
28	21	46	35.9	120	400
60	28	62	47.9	140	600

PIN ASSIGNMENT



Wiring:

- Input (+ve) : Red
- Output (+ve) : Green
- Input (-ve) : Black
- Output (-ve): White
- Sheild

Cable Length:

- 3 m for 0.25–1 t
- 5 m for 3–10 t
- 10 m for 28 t
- 15 m for 60 t

Note: For capacities 28 and 60 tons, the cable screen is not connected to the load cell body.

GET IN TOUCH

OUR OFFICE:

Sree Karuviyial, 205B, Sree Balaji Nagar Extn, Noombal Road, Chennai – 600077, Tamil Nadu, India.

9677089881

techsales@sreeka.in

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