



Series RSL0710

Low Profile Tension/Compression Load Cell

RSL0710

Standard Features

- Low Profile Design
- Ranges From 100 lbs. to 200,000 lbs.
- Tension / Compression
- High Accuracy 0.10%
- High Off-Axis Capability
- Barometrically Compensated
- Welded Stainless Steel
- -50°C to 120°C Operation
- mV/V Output and Amplified Output Available



Standard Specifications

Performance

Capacities	100 lbs. FSO to 200,000 lbs. FSO. (see table)
Output	3 mV/V $\pm 0.50\%$ FSO.
Linearity	0.10% FSO.
Hysteresis	0.08% FSO.
Repeatability	$\pm 0.03\%$ FSO.
Compensated Temperature Range	20°C to 76°C.
Operating Temperature Range	-50°C to 120°C.
Temperature Effect on Zero	0.0036% FSO/°C.
Temperature Effect on Span	0.0036% Reading/°C.
Zero Balance	1% FSO.
Bridge Resistance	350 Ohms nominal.

Mechanical Characteristics

Threads	Female threads (See table).
Calibration	5 Points (0, 50%, 100%, 50%, 0) Tension.
Static Overload Capacity	150% FSO.
Construction	Welded stainless steel.

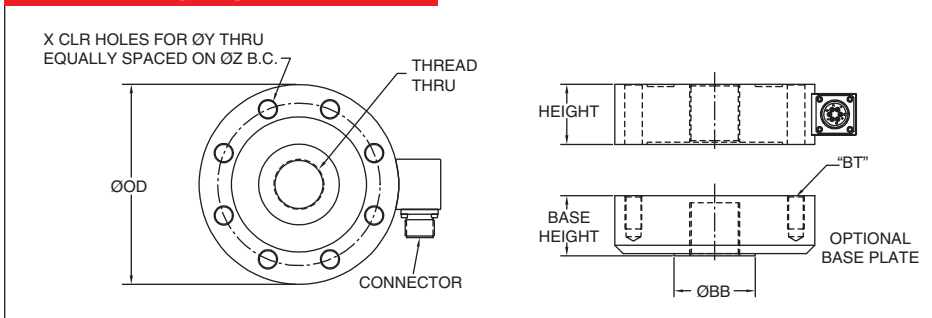
Electrical Characteristics

Excitation	10 Vdc or Vac.
Insulation Resistance	Greater than 5000 megaohms at 50 Vdc.
Electrical Termination	
Ranges Up To 5000 lbs.	PTIH-10-6P Stainless Steel Connector or equivalent.
Ranges Over 5000 lbs.	MS3102-14S-6P Stainless Steel Connector. (MIL-C-5015 with glass to metal seals)
Connector Pins	A +EXE D - EXE
	B +EXE E - SIG
	C - EXE F +SIG

Series RSL0710 Specifications

Baseline Configuration Specs Represented.
Modifications Encouraged - See Below
Custom Designs Available

Dimensions (mm)



*metric threads available as an option.

Capacity (lbs.)	ØOD	Thread*	Height	X	Y	Z	Base Height	ØBB	Base Thread Depth	Base BT
100, 250, 500, 1000	76.2	3/8-24 UNF	25.4	6	7.1	57.15	25.4	25.4	19.1	1/4-28 x 12.7 deep
2K, 3K, 5K	88.9	1/2-20 UNF	25.4	6	8.6	66.68	25.4	38.1	19.1	5/16-24 x 12.7 deep
10K, 15K	139.7	1-14 UN	45.8	8	10.4	114.30	38.1	50.8	19.1	3/8-24 x 19.0 deep
20K, 30K, 50K	152.4	1-1/2-12 UN	45.8	8	13.4	123.83	45.8	63.5	25.4	1/2-13 x 25.4 deep
75K, 100K	228.6	2-12 UN	63.5	12	16.7	196.85	76.2	76.2	31.7	5/8-18 x 25.4 deep
150K, 200K	279.4	2-1/2-12 UN	76.2	12	22.6	241.30	76.2	NA	44.4	7/8-16 x 38.1 deep

Available Options

Compensated Temperature Range	-50°C up to 200°C.
Operating Temperature Range	-50°C up to 200°C.
Calibration	Additional calibration points (in addition to standard 5 points) available. Special and custom calibration available.
Calibration Type	Compression. Tension/Compression.
Amplifiers	Internal and/or In-Line. • Analog (4-20 mA; 0-5 Vdc; 0-10 Vdc). • Digital (RS-232; RS-485; CANbus; MODbus).
Connectors	Consult factory for available connectors. Standard connectors are all stainless steel, Gold plated pins are sealed with glass to metal. Connector is sealed to load cell with O-ring seal. Glass to metal hermetic seals available between bolt on connectors and load cell. All welded hermetic connectors available. Tangential connector orientation available.
Base Plates	Base plate kits can be installed at factory for calibration.
Thread Stops	Sensor can be provided with a thread stop in the bottom of the center threaded hole to prevent the mating thread from extending beyond the sensor and causing interference with parts below (such as a base plate). Thread stops are typically installed with a base plate kit.
Cables	Cable or add a connector to the end of the cable. Consult factory for available connectors.
Overload Stops	Overload stops available up to 10X FSO, depending on range.
Submersible Operation	Operations up to 4,800 meters.
Shock and Vibration	Special shock and vibration preparation allows use in the most demanding environments.



MODIFICATIONS: We realize load cell applications vary greatly and as such our designs are flexible. Choice of electrical termination, material compatibility and performance characteristics are a few of the many options available. Specifications on this datasheet represent the standard configuration only. Product and company names listed are trademarks of their respective companies. Specifications subject to change without notice.

WARRANTY: RDP warrants that its product shall be free from defective workmanship and/or material for a twelve month period from the date of shipment, provided that RDP's obligation hereunder shall be limited to correcting any defective material FOB our factory. No allowance will be made for any expenses incurred for correcting any defective workmanship and/or material without written consent by RDP. This warranty is in lieu of all other warranties expressed or implied.

Due to the nature of technology, changes are inevitable. For latest technical specifications, see our website.

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