



Series RSL0900

Rod End Tension Load Cell

RSL0900

Standard Features

- Ranges From 5K lbs. to 100K lbs.
- In-Line Loading
- Small Diameter
- Variety of Thread Arrangements From Which To Choose
- 0.20% Accuracy
- Welded Stainless Steel
- -50°C to 120°C Operation
- mV/V Output and Amplified Output Available



Standard Specifications

Performance

Capacities	From 5K lbs. FSO to 100K lbs. FSO (see table).
Output	2 mV/V nominal.
Linearity	0.20% FSO.
Hysteresis	0.15% FSO.
Repeatability	0.05% FSO.
Compensated Temperature Range	20°C to 76°C.
Operating Temperature Range	-50°C to 120°C.
Temperature Effect on Zero	0.009% FSO/°C.
Temperature Effect on Span	0.009% Reading/°C.
Zero Balance	1% FSO.
Bridge Resistance	350 Ohms nominal.

Mechanical Characteristics

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

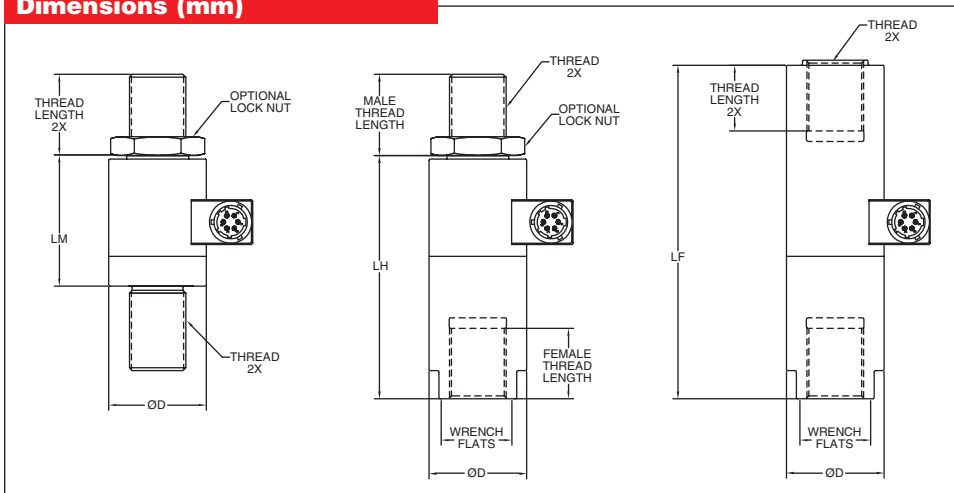
Electrical Characteristics

Excitation	10 Vdc or Vac.
Insulation Resistance	Greater than 5000 megaohms at 50 Vdc.
Electrical Termination	PTIH-10-6P Stainless Steel Connector.
Connector Pins	A +EXE B +SIG C -SIG D -EXE E NC F NC

Series RSL0900 Specifications

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

Dimensions (mm)



Capacity (lbs.)	D	Thread	LM	Std. Male Thread Lgth.	Short Male Thread Lgth.	Std. Female Thread Lgth.	LH	LF	Wrench Flats
5K, 10K, 15K	Ø38.1	3/4-16 UNF	44.5	33.6	22.9	22.9	82.6	120.7	31.8
25K	Ø44.5	1-14 UN	57.2	45.8	31.8	31.8	108.0	152.4	35.1
50K	Ø63.5	1-1/2-12 UNF	76.2	57.2	44.5	44.5	143.0	210.0	50.8
100K	Ø88.9	2-12 UN	95.3	76.2	57.2	57.2	190.5	286.0	*50.8

Available Options

Compensated Temperature Range	Ranges from -50°C up to 200°C.
Operating Temperature Range	Ranges from -50°C up to 200°C.
Calibration	Additional calibration points (in addition to standard 5 points) available (Consult Factory) Special and custom calibration available (Consult Factory)
Bridges	Dual and triple bridges.
Amplifiers	Internal or In-Line (Consult Factory). • Analog (4-20 mA; 0-5 Vdc; 0-10 Vdc). • Digital (RS-232; RS-485; CANbus; MODbus).
Calibration Range	Special full scale ranges (eg: 6300 lbs.).
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. Connector housing orientation. Consult factory.
Thread Sizes	Special thread sizes and loading ends (clevis and tongue shackles). Consult factory.
Cables	Cable or add a connector to the end of the cable. Consult factory for available connectors and cables.
Submersible Operation	Operations up to 4800m deep.
Shock and Vibration	Special shock and vibration preparation allows use in the most demanding environments.
Supplemental Technical Details	See next page.



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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Technical Information

Capacity (lbs.)	Max.Torque (In-Lb)	Max.Bending (In-Lb)	Ringing Frequency (KHz)	Deflection (Full Scale, micron)
5K	200	100	5500	76
10K	500	250	7500	102
15K	1000	500	8000	127
25K	2000	1000	10,000	127
50K	6000	3000	8000	127
100K	15000	8000	5000	152

Notes

Note 1: Standard length threads allow full 1 diameter thread engagement with optional lock nut.Short thread without optional lock nut available on request.

Note 2: Ø88.90mm RSL0900 will be supplied with 4 equally spaced Ø6.35mm spanner wrench holes.

Note 3: Do not exceed listed maximum torque across load cell (top to bottom).It is permissible to use standard torque values from the nut to the nut mating fixture and the flat to the flat mating fixture.



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