Series RSL0740
Fatigue Rated, Precision Low Profile Load Cell

Standard Features
- Tension / Compression
- All Welded Stainless Steel
- Barometrically Compensated
- Accuracy to 0.03%
- Fatigue Rated
- 100 million Cycle life
- 0.25% Off-Axis Sensitivity
- -50° to 120° C Operation
- mV/V Operation

Standard Specifications

Performance
- Capacities
  250, 500, 1000, 2500, 5000, 12.5K, 25K, 50K, 100K lbs.
- Output
  2 mV/V nominal.
- Accuracy
  Up to 0.03% FSO BFSL (See Table).
- Compensated Temperature Range
  -9°C to 46°C.
- Operating Temperature Range
  -50°C to 120°C.
- Temperature Effect on Zero
  0.0015% FSO/°C.
- Temperature Effect on Span
  0.0015% Reading/°C.
- Creep, in 30 min
  0.025% Load.
- Off-Axis Sensitivity
  0.25% / in.
- Zero Balance
  1% FSO.
- Bridge Resistance
  350 Ohms nominal.

Mechanical Characteristics
- Calibration
  5 Points (0, 50%, 100%, 50%, 0) Tension/Compression.
- Static Overload Capacity
  200% FSO.
- Construction
  Welded stainless steel.

Electrical Characteristics
- Excitation
  10 Vdc or Vac.
- Maximum Excitation
  20Vdc or Vac.
- Insulation Resistance
  Greater than 5000 megaohms at 50 Vdc at 20°C.
- Connector
  PTIH-10-6P, Stainless steel with Gold Plated Pins.
- Connector Pins
  A +EXE  D - EXE
  B +SIG  E NC
  C - SIG  F NC
**Series RSL0740 Specifications**

### Dimensions (mm)

![Diagram of dimensions](image)

**Capacity (lbs.)** | ØOD | Thread | Height | X | ØY | ØG | ØC | ØB | Base Height | ØB
---|---|---|---|---|---|---|---|---|---|---
250, 500, 1000 | 104.9 | 5/8-18 UNF | 35.1 | 8 | 7.1 | 88.90 | 34.0 | 28.7 | 31.8
2.5K, 5K | 104.9 | 5/8-18 UNF | 35.1 | 8 | 7.1 | 88.90 | 34.0 | 28.7 | 31.8
12.5K, 25K | 152.4 | 1 1/4-12 UN | 44.5 | 12 | 10.4 | 130.30 | 67.3 | 44.5 | 57.2
50K | 203.2 | 1 3/4-12 UN | 63.5 | 16 | 13.4 | 165.10 | 95.5 | 50.8 | 76.2
75K, 100K | 228.6 | 2 1/2-12 UN | 76.2 | 16 | 16.7 | 200.15 | 101.6 | 69.9 | 101.6

**MECHANICAL CHARACTERISTICS AND RATINGS**

**CAPACITY (LBS)** | 250, 500, 1K | 2.5K, 5K | 12.5K, 25K | 50K | 75K, 100K
---|---|---|---|---|---
Accuracy (%FSO BFSL) | 0.03 | 0.04 | 0.05 | 0.05 | 0.06
Linearity (%FSO) | 0.04 | 0.04 | 0.05 | 0.05 | 0.05
Hysteresis (%FSO) | 0.03 | 0.04 | 0.05 | 0.05 | 0.06
Repeatability (%FSO) | 0.02 | 0.02 | 0.02 | 0.02 | 0.02
Deflection @ FSO (micron) | 25 | 25 | 51 | 51

### Available Options

**Threads**
- Metric or Custom.

**Base**
- Base can be assembled with load cell or sold separately.

**Output**
- 3mV/V, 4mV/V, Custom. Standardized output.

**Dimensions**
- Custom dimensions welcome.

**Compensated Temperature Ranges**
- -50°C to 200° C.

**Operating Temperature Ranges**
- -50°C to 200° C.

**Calibration**
- Additional calibration points (in addition to standard points) available (Consult Factory).
- Special and custom calibrations available (Consult Factory)

**Amplifiers**
- Internal and/or In-Line (Consult Factory).
  - Analog (4-20 mA; 0-5 Vdc; 0-10 Vdc).
  - Digital (RS-232; RS-485; CANbus; MODbus).

**Multiple Bridges**
- Dual and Triple bridges available.

**Calibration Range**
- Special full scale ranges (Example: 75 lb).

**Cables and Cable Length**
- For Cable types available, consult factory. Specify Cable length.

**Cable Connector**
- Add a connector to the end of the cable.
- Consult factory for available connectors.

**Connectors**
- Many connectors available (PT04, MS3102, etc.) Consult factory
- Orientation: Any orientation (radial standard, tangential, up or down or custom).
- Connector guards.

**Hermetically Sealed**
- Hermetic seal, O-ring Seal and combinations are available. Consult factory.

**Overload Protection**
- Compression. Overload stops take up to 10X F.S. Consult factory.

**Shock and Vibration**
- Special shock and vibration preparation allows use in the most demanding environments.

### Custom Options
- Other customer requested options welcome.

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**Modifications and Warranty**

**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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