



STELLAR TECHNOLOGY

ISO 9001/AS9100 Certified

LDP990

CLEVIS PIN LOAD CELL

YOUR ENGINEERED SOLUTION SOURCE SM



DESCRIPTION

Stellar Technology's Series LDP990 load cells are designed specifically for applications where clevis pins, shear pins, shear axles, or pulley shafts are carrying the load.

These load pins are ideal for real time force monitoring of loads carried by these types of devices. In addition, clevis pin load cells are used for coiled tubing injectors to measure both the injector forces and the hanging weight of the tubing. STI's clevis pin load cells are constructed of welded stainless steel and are hermetically sealed to meet the most severe operating conditions. Series LDP990 load pins are available with internal amplifiers providing high level analog outputs and digital outputs. Optional shackle kits consisting of shackle, load positioning roller, and orientation bracket are available. Intrinsically safe (ATEX, IEC and CSA) versions are available with 4-20 mA output.

All Series LDP990 load pins are manufactured to be shock and vibration resistant. Each unit is shipped with a 5 point calibration record traceable to NIST as standard.

STANDARD FEATURES

- Ranges from 3,000 lbs. to 200,000 lbs.
- Tension or Compression
- Welded Stainless Steel
- -65°F to +250°F Operating Temperature
- Extra Robust Electrical Connectors
- Hermetic Connector
- Shock and Vibration Resistant
- 5 Point Calibration Record Traceable to NIST

OPTIONAL FEATURES

- Shackle Kit w/Orientation Bracket
- Tension and Compression
- Customer Specified Electrical Termination
- Internal Amplifiers for High Level Analog/Digital Outputs
- Intrinsically Approved 4-20 mA Output (ATEX, IEC and CSA)
- Special Full Scale Ranges
- -65°F to +400°F Operating Temperature
- Special Calibrations
- Submersible to 16,000 Ft. Sea Water



A US Manufacturer of: Pressure, Temperature, Load/Force/Torque, and Displacement Sensors.

PERFORMANCE

STANDARD RANGES

3000 lbs. to 200,000 lbs.

OUTPUT

2 mV/V nominal.

REPEATABILITY

0.20% FSO.

TEMPERATURE EFFECT ON ZERO

0.008% FSO/°F.

TEMPERATURE EFFECT ON SPAN

0.005% Reading/°F.

ZERO BALANCE

1% FSO.

ENVIRONMENTAL CHARACTERISTICS

OPERATING TEMPERATURE RANGE

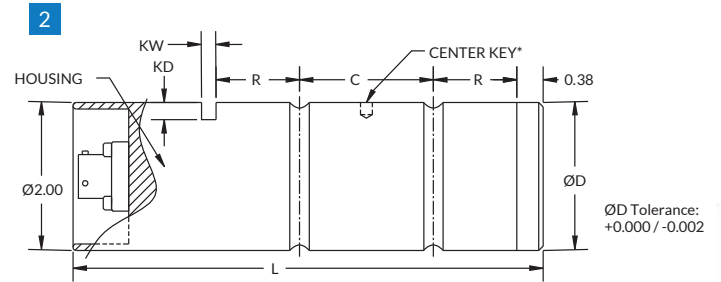
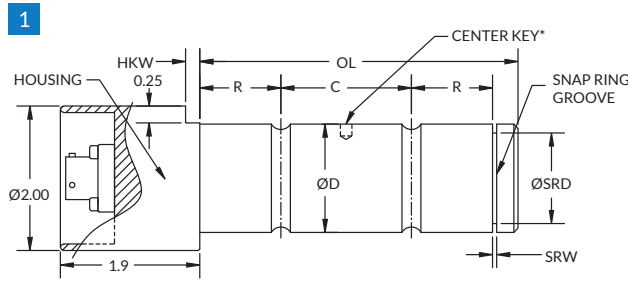
-65°F to 250°F.

(-320°F to 400°F optional.)

COMPENSATED TEMPERATURE RANGE

70°F to 170°F.

(-65°F to 400°F optional.)



*Center key feature is optional (not included on standard builds)

1 CAPACITY (LBS)	SENSOR ØD	R	C	OL	SNAP RING SRW	ØSRD	HOUSING HKW	CENTER ØKEY*
3,000	0.500	0.50	0.75	2.1	0.039	0.468	0.20	N/A
6,000	0.750	0.59	1.00	2.6	0.046	0.704	0.20	0.156
12,500	1.000	0.63	1.00	2.8	0.046	0.940	0.20	0.219
18,000	1.250	0.81	1.38	3.7	0.056	1.176	0.27	0.219
30,000	1.500	0.94	1.63	4.0	0.056	1.406	0.27	0.281

2 CAPACITY (LBS)	SENSOR ØD	R	C	L	HOUSING HKW	KD	CENTER ØKEY*
50,000	2.00	1.00	2.00	6.63	0.266	0.38	0.281
75,000	2.50	1.25	2.50	7.63	0.266	0.50	0.281
100,500	2.75	1.47	2.69	8.38	0.406	0.50	0.406
125,000	3.00	1.44	3.00	8.75	0.406	0.63	0.406
160,000	3.50	1.75	3.50	10.00	0.531	0.63	0.531
200,000	4.00	2.25	4.00	11.75	0.531	0.75	0.531

*Center key feature is optional (not included on standard builds)

MECHANICAL CHARACTERISTICS

STATIC OVERLOAD WITHOUT DAMAGE

150% Range.

STANDARD CALIBRATION

Tension only:

5 points (0, 50%, 100%, 50%, 0 of Range).

OPTIONAL CALIBRATIONS

- Compression only:
5 points (No charge option)
- Tension and Compression:
5 points in each direction
- Special multipoint calibration (customer specified):
in tension or compression or both tension and compression.

MATERIAL

Welded stainless steel.

MODIFICATIONS AND WARRANTY

MODIFICATIONS: We realize transducer applications vary greatly and as such our designs are flexible. Choice of pressure port, 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: Stellar Technology 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 Stellar Technology'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 Stellar Technology. This warranty is in lieu of all other warranties expressed or implied.

ELECTRICAL CHARACTERISTICS

BRIDGE RESISTANCE

5000 Ohms nominal.

EXCITATION

10 Vdc or 10 Vac.

INSULATION RESISTANCE

Greater than 5000 megaohms at 50 Vdc.

ELECTRICAL TERMINATION

PTIH-10-6P, Stainless steel connector with O-ring Seal.

ELECTRICAL CHARACTERISTICS

STANDARD WIRING CODE

(Connector pin-outs)

A	+EXE	D	-EXE
B	+SIG	E	N/C
C	-SIG	F	N/C

Customer specified wiring codes are available.



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

