

Series RDE900

Rod-End Shackle Tension Load Cell

RDE900 Shackle



Description

The Series RDE900 Shackle load cells are special rod-end tension load cells, incorporating integral tongue shackle connections. Constructed of all welded stainless steel, these bonded foil strain gaged force sensors provide reliable performance for very demanding applications. Features include shock and vibration protection. Customers can also specify optional internal amplifiers for analog (current and voltage) or digital outputs (RS232, RS485, CANbus). Intrinsically safe 4-20 mA output versions are available. The RDE900 load cells are used in a number of applications ranging from wire-line and slick-line upstream oil and gas exploration to submersible towing arrays. Each unit is shipped with a 5 point calibration record traceable to NIST as standard.

(See Series RDE900 for Threaded End Versions)

Standard Features

- 0.20% Accuracy
- In-Line Tension
- Tongue/Shackle Connections
- 2 mV/V
- All Welded Stainless Steel
- -40°F to 250°F Standard Temperature
- Shock and Vibration Resistant
- 5 Point Calibration Record Traceable to NIST

Optional Features

- Metric Versions
- Special Calibration
- Customer Specified Electrical Termination
- Subsea/Submersible Versions
- Internal Signal Conditioning (Analog or Digital)
- Intrinsically Safe (4-20 mA ATEX/CSA)
- -65°F to +400°F Operating Temperature

Performance

Standard Ranges

5K to 120K lbs.

Output

2mV/V nominal.

Linearity

0.20% FSO.

Hysteresis

0.15% FSO.

Repeatability

0.05% FSO..

Temperature Effect on Zero

0.005% FSO/°F.

Temperature Effect on Span

0.005% Reading/°F.

Zero Balance

1% FSO.

Environmental Characteristics

Operating Temperature Range

-40°F to 250°F.

(-40°F to 400°F optional.)

Compensated Temperature Range

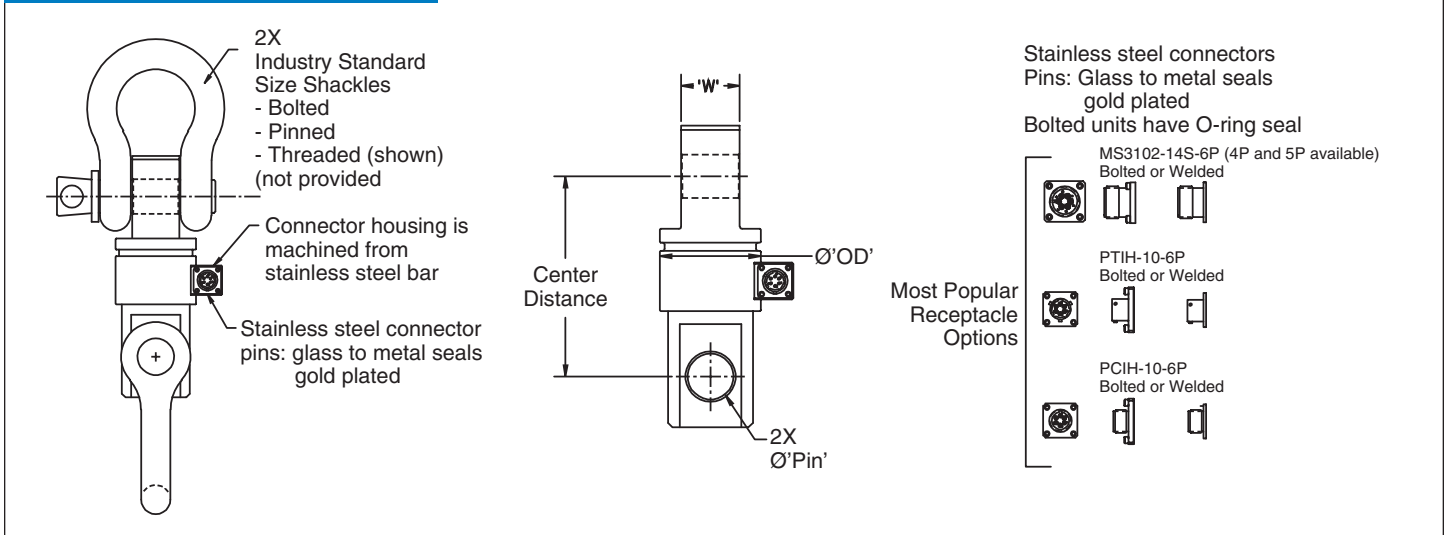
70°F to 170°F.

(-40°F to 400°F optional.)

Series RDE900 Shackle Specifications

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

Dimensions (inches)



CAPACITY	CENTER		Fits Shackle		
	DISTANCE	OD	*PIN	W	SIZE
2.5K, 5K	3.88	1.5	3/4	0.97	3-1/4 TON
10K, 15K	4.75	2.0	1	1.31	6-1/2 TON
20K, 25K	5.50	2.8	1-1/8	1.60	8-1/2 TON
35K	6.35	3.0	1-1/2	2.04	13-1/2 TON
50K, 60K	8.53	3.7	2	2.69	25 TON
80K, 100K	11.10	4.5	2-1/4	3.00	35 TON
120K	12.50	5.5	2-3/4	3.76	55 TON

NOTE: Shackle sizes not shown available. Load cells for any capacity may be ordered in a larger shackle size than shown.

Mechanical Characteristics

Static Overload Without Damage

150% FSO.

Calibration

Standard calibration is 5 pts (0, 50%, 100%, 50%, 0) tension.

Material

Welded stainless steel.

Shackle Size

See table.

Electrical Characteristics

Bridge Resistance

350 Ohms nominal.

Excitation

10 Vdc or Vac.

Insulation Resistance

Greater than 5000 megohms at 50 Vdc.

Electrical Termination

PTIH-10-6P Stainless Steel Connector or equivalent.

Electrical Characteristics

Connector Pins (Standard)

A	+EXE	B	+SIG
C	-SIG	D	-EXE
E	NC	F	NC

Customer specified wiring codes are available.



NOTES: When using a load cell the user must consider load ratings and fatigue life for long term use and structural integrity. Critical loading applications, especially overhead loading, must always be designed with safety redundant load paths. MODIFICATIONS: We realize load cell applications vary greatly and as such our designs are flexible. 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.

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