

# LOW PROFILE LOAD CELLS

## WATERPROOF FOR WET OR WASHDOWN APPLICATIONS

**Tension/Compression**  
**Calibrated in Tension**  
**5 to 500,000 lb Capacities**  
**2.3 kgf to 225T\* Capacities**

### LSHD Series Compression



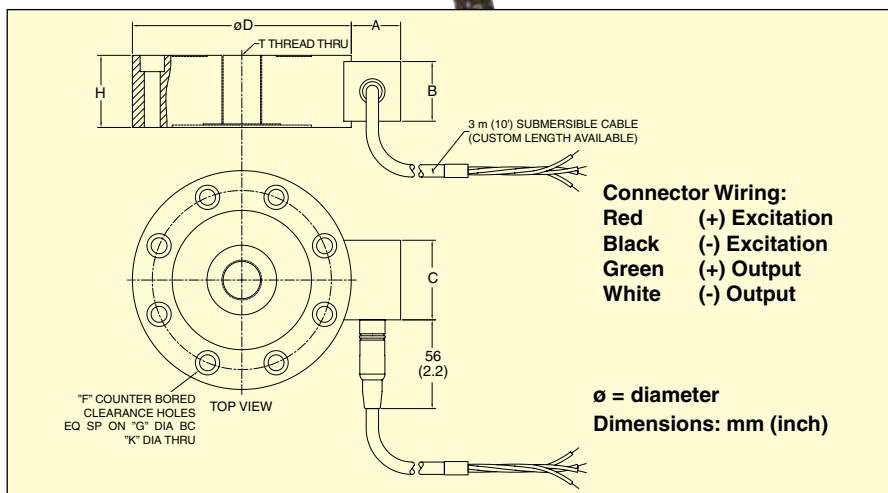
- ✓ High Accuracy
- ✓ 5-Point NIST Traceable Calibration Included
- ✓ Hermetically Sealed for Wet and Submerged Applications
- ✓ All Stainless Steel Construction for Harsh Industrial Environments
- ✓ 1% Interchangeability for Scale Applications
- ✓ High Capability to Resist Side Loads
- ✓ Low Profile for Easy Installations
- ✓ 3 m (10') Waterproof Cable Standard

The LSHD Series load cells are hermetically sealed and have a high pressure, high temperature molded cable seal to assure long life in wet or submerged applications such as truck or rail scales. They are supplied with a standard length of 3 m (10') of cable, however longer lengths are available. Many standard lengths are stocked plus custom lengths are also available.



LSHD

Waterproof high pressure molded cable connection.



### SPECIFICATIONS

**Excitation:** 10 Volts, 15 Vdc maximum  
**Output Ranges** ≤ 25 lb: 2 mV/V ± 1%  
 Ranges > 25 lb: 3 mV/V ± 1%  
**Calibration:** 5 points in tension  
 0%, 50%, 100%, 50%, 0% capacity  
**Linearity** ≤ 25 lb: ± 0.2% FSO  
 Ranges > 25 lb: ± 0.1% FSO  
**Hysteresis** ≤ 25 lb: ± 0.1% FSO  
 Ranges > 25 lb: ± 0.08% FSO  
**Repeatability** ≤ 25 lb: ± 0.1% FSO  
 Ranges > 25 lb: ± 0.03% FSO

**Zero Balance:** ±1% FSO  
**FS Deflection:** 0.025 to 0.075 mm (0.001 to 0.003")  
**Operating Temperature:** -18 to 82°C (0 to 180°F)  
**Compensated Temperature:** 15 to 71°C (60 to 160°F)  
**Thermal Effects:**  
**Span:** ± 0.0036% rdg/°C  
**Zero:** ± 0.0036% FSO/°C  
**Safe Overload:** 150% Capacity  
**Ultimate Overload:** 300% Capacity

| CAPACITY (LBS)     | Dimensions: mm (inch) |            |            |             |    |               |           |           |           |
|--------------------|-----------------------|------------|------------|-------------|----|---------------|-----------|-----------|-----------|
|                    | D                     | H          | K          | G           | F  | T-THREADS     | B         | C         | A         |
| 5 to 25            | 64 (2.50)             | 20 (0.80)  | 4.6 (0.18) | 51 (2.00)   | 6  | ¼ - 28UNF-2B  | 19 (0.75) | 32 (1.25) | 23 (0.92) |
| 50 to 1000         | 76 (3.00)             | 25 (1.00)  | 7 (0.28)   | 57 (2.25)   | 6  | ⅜ - 24UNF-2B  | 19 (0.75) | 32 (1.25) | 23 (0.92) |
| 2000 to 5000       | 89 (3.50)             | 25 (1.00)  | 9 (0.34)   | 67 (2.63)   | 6  | ½ - 20UNF-2B  | 19 (0.75) | 32 (1.25) | 23 (0.92) |
| 7500 to 15,000     | 140 (5.50)            | 46 (1.80)  | 10 (0.40)  | 114 (4.50)  | 8  | 1 - 14UNS-2B  | 38 (1.50) | 51 (2.00) | 32 (1.24) |
| 20,000 to 50,000   | 152 (6.00)            | 46 (1.80)  | 13 (0.53)  | 124 (4.88)  | 8  | 1½ - 12UNF-2B | 38 (1.50) | 51 (2.00) | 32 (1.24) |
| 75,000 to 100,000  | 229 (9.00)            | 64 (2.50)  | 17 (0.66)  | 197 (7.75)  | 12 | 2 - 12UN-2B   | 38 (1.50) | 51 (2.00) | 32 (1.24) |
| 150,000 to 200,000 | 279 (11.00)           | 76 (3.00)  | 20 (0.78)  | 241 (9.50)  | 12 | 2½ - 12UN-2B  | 38 (1.50) | 51 (2.00) | 32 (1.24) |
| 300,000 to 500,000 | 356 (14.00)           | 108 (4.25) | 25 (1.00)  | 298 (11.75) | 12 | 3½ - 8UN-2B   | 38 (1.50) | 51 (2.00) | 32 (1.24) |

\* Metric Models Available: Contact Sales for specific model number, price and delivery information.

# WATERPROOF LOAD CELLS

**Bridge Resistance:** 350  $\Omega$  nominal

**Protection Level:** IP68

**Electrical Connection:** 3 m (10')  
submersible cable

*Other lengths available see table*

**Construction:** 17-4 pH stainless steel

**Submersible Depth:**

**5 to 10K Range:** 3 m (10')

**20 to 50K Range:** 6 m (20')

**75 to 500K Range:** 15 m (50')

## SUBMERSIBLE CABLE

| LENGTH       | LENGTH cont'd |
|--------------|---------------|
| 0.6 m (2')   | 15.2 m (50')  |
| 1.5 m (5')   | 18.3 m (60')  |
| 3.0 m (10')  | 19.8 m (65')  |
| 4.5 m (15')  | 22.8 m (75')  |
| 6.0 m (20')  | 30.4 m (100') |
| 7.6 m (25')  | 45.7 m (150') |
| 9.1 m (30')  | 60.9 m (200') |
| 12.2 m (40') | 91.4 m (300') |

*Custom cable length available.*

## POPULAR OPTIONS

| DESCRIPTION                                                                      | SUFFIX                       |
|----------------------------------------------------------------------------------|------------------------------|
| <b><math>\pm 5</math> Vdc Output</b><br>(calibrated<br>0 to 5 Vdc in<br>tension) | <b>“-5T”</b><br>(Ranges 75k) |
| <b>Overload Stops</b>                                                            | <b>Consult factory</b>       |
| <b>Dual Bridge</b>                                                               | <b>Available</b>             |

| To Order |      |           |                         |             |          |
|----------|------|-----------|-------------------------|-------------|----------|
| CAPACITY |      | MODEL NO. | COMPATIBLE METERS       | LOAD BUTTON | ROD END  |
| lb       | kg   |           |                         |             |          |
| 5        | 2.3  | LSHD-5    | DP41-S, DP25B-S, DPi8-S | LBC-14      | REC-014M |
| 10       | 4.5  | LSHD-10   | DP41-S, DP25B-S, DPi8-S | LBC-14      | REC-014M |
| 25       | 11   | LSHD-25   | DP41-S, DP25B-S, DPi8-S | LBC-14      | REC-014M |
| 50       | 23   | LSHD-50   | DP41-S, DP25B-S, DPi8-S | LBC-38      | REC-038M |
| 100      | 45   | LSHD-100  | DP41-S, DP25B-S, DPi8-S | LBC-38      | REC-038M |
| 250      | 114  | LSHD-250  | DP41-S, DP25B-S, DPi8-S | LBC-38      | REC-038M |
| 500      | 227  | LSHD-500  | DP41-S, DP25B-S, DPi8-S | LBC-38      | REC-038M |
| 1000     | 455  | LSHD-1K   | DP41-S, DP25B-S, DPi8-S | LBC-38      | REC-038M |
| 2000     | 909  | LSHD-2K   | DP41-S, DP25B-S, DPi8-S | LBC-012     | REC-012M |
| 3000     | 1.3T | LSHD-3K   | DP41-S, DP25B-S, DPi8-S | LBC-012     | REC-012M |
| 4000     | 1.8T | LSHD-4K   | DP41-S, DP25B-S, DPi8-S | LBC-012     | REC-012M |
| 5000     | 2.2T | LSHD-5K   | DP41-S, DP25B-S, DPi8-S | LCB-012     | REC-100M |
| 7500     | 3.4T | LSHD-7.5K | DP41-S, DP25B-S, DPi8-S | LBC-100     | REC-100M |
| 10,000   | 4.5T | LSHD-10K  | DP41-S, DP25B-S, DPi8-S | LBC-100     | REC-100M |
| 15,000   | 6.8T | LSHD-15K  | DP41-S, DP25B-S, DPi8-S | LBC-100     | REC-100M |
| 20,000   | 9.1T | LSHD-20K  | DP41-S, DP63900-S       | LBC-112     | REC-112M |
| 30,000   | 13T  | LSHD-30K  | DP41-S, DP63900-S       | LBC-112     | REC-112M |
| 50,000   | 22T  | LSHD-50K  | DP41-S, DP63900-S       | LBC-112     | REC-112M |
| 75,000   | 34T  | LSHD-75K  | DP41-S, DP63900-S       | —           | —        |
| 100,000  | 45T  | LSHD-100K | DP41-S, DP63900-S       | —           | —        |
| 150,000  | 68T  | LSHD-150K | DP41-S, DP63900-S       | —           | —        |
| 200,000  | 90T  | LSHD-200K | DP41-S, DP63900-S       | —           | —        |
| 300,000  | 135T | LSHD-300K | DP41-S, DP63900-S       | —           | —        |
| 400,000  | 180T | LSHD-400K | DP41-S, DP63900-S       | —           | —        |
| 500,000  | 225T | LSHD-500K | DP41-S, DP63900-S       | —           | —        |

*Comes complete with 5-point NIST traceable calibration certificate, 59K shunt data, and 3 m (10') cable.*

**Note:** Ranges over 300,000 lb are calibrated at 300,000 lb.

**Ordering Examples:** LSHD-500 is a 500 lb range waterproof load cell.

LSHD-20K, 20,000 lb range waterproof load cell.