

# DB Series

## Double-ended Shear Beam, High-Capacity Load Cells



- 50,000 and 75,000 lb capacities
- Environmentally-sealed (IP68)
- Stainless steel construction
- NTEP and OIML certified
- 2-year warranty

Cardinal Scale's USA-made heavy-capacity DB series double-ended shear beam load cells are ideal for multiple load cell applications such as vehicle scales and heavy-duty tank weighing systems. These load cells are fabricated from stainless steel to provide the ultimate in protection when caustic, corrosive or wet environments are encountered. They are environmentally-sealed for absolute water protection (IP68). Each load cell is furnished with a 32-ft/10-m integral multiconductor cable secured by strain relief seal. 50,000 and 75,000 lb / 22,500 and 34,000 kg capacities.

### MECHANICAL DATA

<b>Rated Capacity, (R.C.) E<sub>max</sub></b>	50,000 lb / 22,500 kg 75,000 lb / 34,000 kg
<b>Minimum Dead Load</b>	350 lb / 160 kg
<b>Safe Load Limit</b>	150% R.C.
<b>Ultimate Load</b>	300% R.C. DB-50000S 200% R.C. DB-75000S
<b>Deflection at R.C.</b>	.015 in / 0.38 mm
<b>Net Weight</b>	9 lb / 4 kg

### CERTIFICATE DATA

<b>Issuing Body</b>	NTEP	OIML
<b>Certificate Number</b>	97-133	R60/1991-DK-99.01
<b>Accuracy Class</b>	IIIL	C3
<b>Maximum Number of Load Cell Intervals, n<sub>max</sub></b>	10,000	3,000
<b>Minimum Load Cell Verification Interval V<sub>min</sub></b>	DB50K 1.4 lb DB75K 2.1 lb	2.5 kg 2.5 kg

### ELECTRICAL DATA

<b>Rated Output</b>	2 ± 0.1% mV/V
<b>Excitation Voltage, Minimum</b>	10 VDC
<b>Excitation Voltage, Maximum</b>	15 VDC
<b>Cable Length</b>	32 ft / 10 m
<b>Terminal Resistance</b>	
Excitation	787 ± 40 ohms
Signal	702 ± 10 ohms
<b>Zero Load Output</b>	± 1% R.C.
<b>Insulation Resistance</b>	>5000 megohms at 50 VDC

### ENVIRONMENTAL DATA

<b>Temperature Compensation Range</b>	-10° to +40°C
<b>Operating Temperature Range</b>	-29° to +93°C
<b>Construction &amp; Protection Code</b>	CP-67 HU, IP68

**MADE IN USA**

**DB**

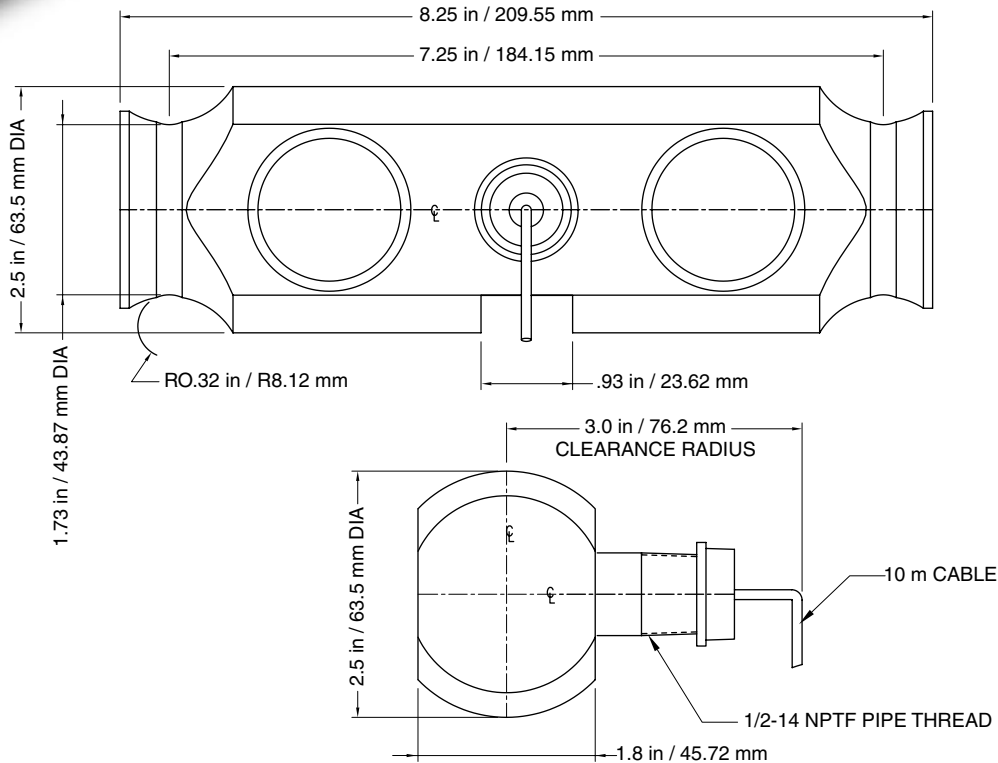
LOAD CELL

# DB Series

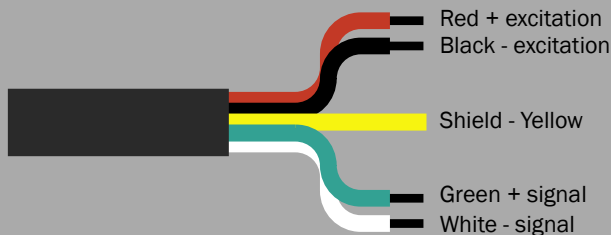
## High-Capacity, Double-Ended Shear Beam Load Cells

**Model DB-50000S**  
Capacity: 50,000 lb/22,500 kg

**Model DB-75000S**  
Capacity: 75,000 lb/34,000 kg



### ELECTRICAL INFORMATION



### State-of-the-Art Load Cell Manufacturing Facility ISO 9001 Quality Environment



### CERTIFICATIONS



The DB-50000S load cell meets all requirements of OIML R60 and has been issued OIML Certificate No. **R60/1991-DK-99.01**



The DB-50000S and DB-75000S load cells meet all requirements of Handbook 44, issued by the National Institute of Standards and Technology and have been issued the NTEP Certificate of Conformance No. **97-133**.

### VCAP CERTIFIED

Cardinal Scale has been formally audited and found to be fully compliant with the Verified Conformity Assessment Program (VCAP) administered by the National Type Evaluation Program (NTEP) of the National Conference on Weights and Measures (NCWM).

Cardinal Scale reserves the right to improve, enhance or modify features and specifications without prior notice. All registered trademarks are the property of their respective owners.

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