

# Cardinal LOAD CELLS

## SERIES SB - BEAM TYPE - FOR MEDIUM TO HEAVY WEIGHING



- Capacities from 1130 kg to 9000 kg
- Highly resistant to eccentric loading
- Waterproof construction
- Stainless steel models for corrosion resistance
- Low profile design
- 6 m integral shielded cable

Beam cells with capacities from 1130 kg to 9000 kg promote a variety of applications, such as low profile platform scales, tank and/or hopper weighing, and other process control systems. The design of these cells makes them highly resistant to eccentric loads. Construction of high grade stainless steel in these cells offers strength, and the ultimate in protection when caustic or corrosive environments are encountered. Provided with the cell are mounting holes for securing cell, and a 6 m integral multiconductor shielded cable secured by a compression strain relief seal.

These cells are welded closed, providing superior waterproofing, while remaining flexible over the life of the load cell. This protects the load cell strain gages, and over a broad temperature range, has no effect on load cell precision accuracy.

### SPECIFICATIONS

#### Mechanical Data

Rated Capacity, (R.C.) $E_{max}$  . 1130, 2260, 4500 & 9000 kg  
 Minimum Dead Load ..... 0 kg  
 Safe Load Limit ..... 150% R.C.  
 Ultimate Load ..... 300% R.C.  
 Deflection at R.C. .... .38 to 0.97 mm  
 Spring Element Material ..... 17-4 PH  
 Net Weight ..... 2.3 to 4.7 kg

#### Environmental Data

Temperature Compensation  
 Range ..... -10° to 40°C  
 Operating Temperature Range .. -29° to 93°C  
 Construction & Protection  
 Code ..... CP-67 HU, IP67  
 Barometric Pressure Effect  
 on Zero Load Output ..... <1 v (min)/1kPa

#### Electrical Data

Rated Output ..... 2mV/V  
 Excitation Voltage,  
 Recommended ..... 10 VDC  
 Excitation Voltage,  
 Maximum ..... 15 VDC  
 Cable Length ..... 6 m  
 Terminal Resistance  
 Excitation ..... 386 ± 12 ohms  
 Signal ..... 350 ± 5 ohms  
 Zero Load Output ..... ± 1% R.C.  
 Insulation Resistance ..... >5000 megohms at  
 50 VDC

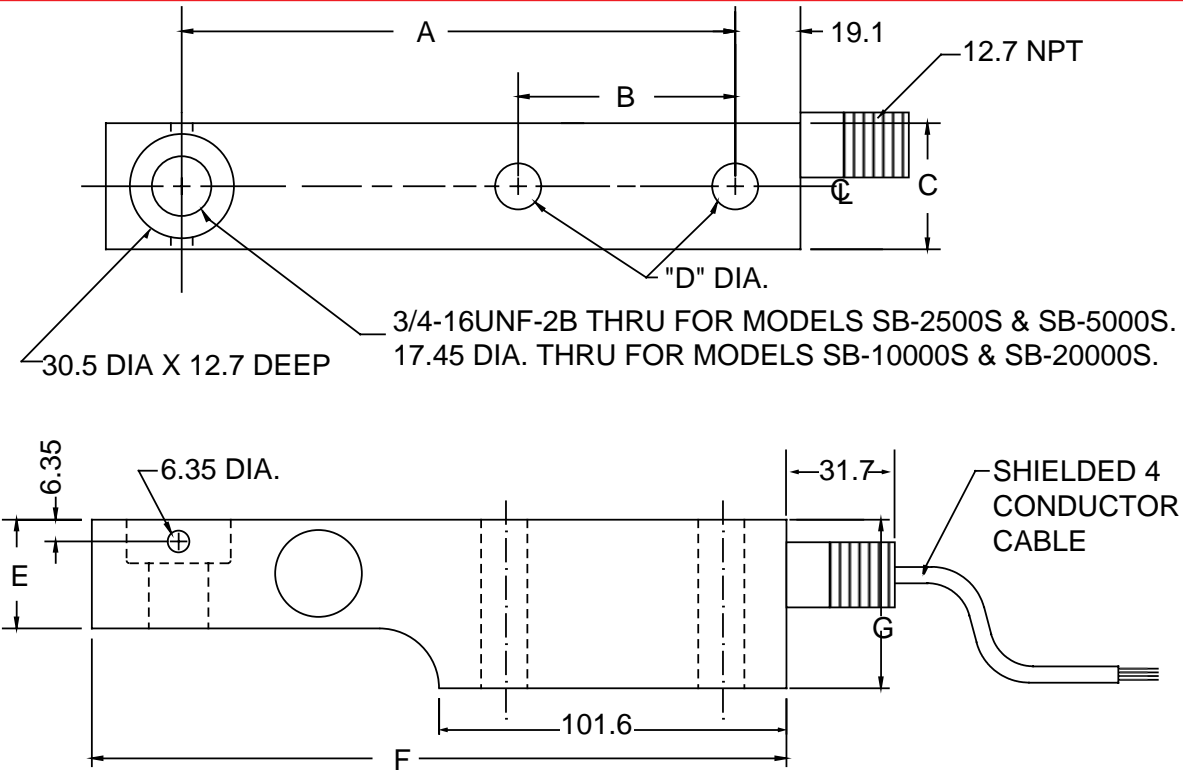
#### Color Code

+ Excitation ..... Green  
 - Excitation ..... Black  
 - Signal ..... White  
 + Signal ..... Red

#### Certificate Data

Issuing Body ..... NTEP ..... OIML  
 Certificate Number ..... 87-059A1 ..... R60/1991-DK-97.02  
 Accuracy Class ..... III/IIIL ..... C3  
 Maximum Number of LoadCell Intervals,  $n_{max}$  ..... 5000/10000 ..... 3000  
 Single/Multiple ..... S/M  
 Humidity Symbol ..... CH  
 Minimum Load Cell Verification Interval  $V_{min}$  ..... III - 0.16, 0.32, 0.64 & 1.27 kg ..... 0.086, 0.17, 0.35 & 0.70 kg  
 ..... IIIL - 0.1, 0.2, 0.4 & 0.8 kg

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## DIMENSIONAL INFORMATION

MODEL	CAPACITY	"A"	"B"	"C"	"D"	"E"	"F"	"G"
SB-2500S	1130 kg	161.9	63.5	36.8	13.51 dia thru	31.7	203.2	49.2
SB-5000S	2260 kg	161.9	63.5	36.8	13.51 dia thru	36.8	203.2	49.2
SB-10000S	4500 kg	184.2	50.8	49.3	19.86 dia thru	41.1	228.6	62.5
SB-20000S	9000 kg	184.2	50.8	49.3	19.86 dia thru	50.8	228.6	62.5

All dimensions are in mm unless otherwise noted.



The SB Series Load Cells meet all requirements of OIML R60 and has been issued OIML certificate no. R60/1991-DK-97.02.

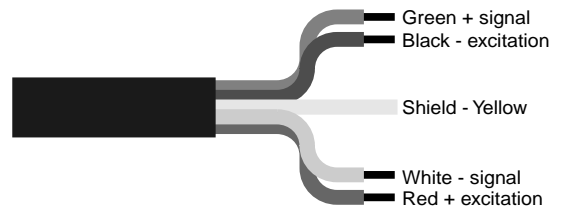


The SB Series Load Cells meet all requirements of Handbook 44, issued by the National Institute of Standards and Technology and have been issued the NTEP Certificate of Conformance No. 87-059 A1.



Cardinal Scale reserves the right to improve, enhance and modify features and specifications without prior notice.

## ELECTRICAL INFORMATION



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