

## Miniature Bending Beam



### DESCRIPTION

MBB is designed for low profile platform scales and tank scales in low capacities. It is constructed of high alloy tool steel which offers superior performance in creep characteristics and shock load capabilities over standard aluminum units.

MBB is fully potted and sealed with special chemical compounds to IP66 providing excellent protection against moisture and humidity.

### FEATURES

- Capacities: 50, 100, 150, and 250lb
- Low profile for low capacity scales
- Electroless nickel plated alloy tool steel

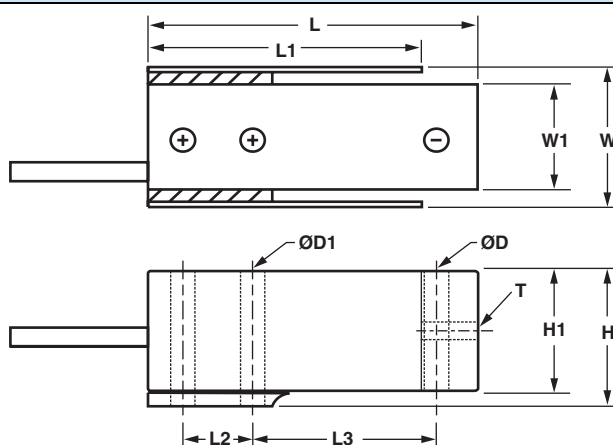
### OPTIONAL FEATURE

- FM approval available

### APPLICATIONS

- Silo/hopper/tank weighing
- Packaging machines
- Dosing/filling
- Belt scales/conveyor scales

### OUTLINE DIMENSIONS



Wiring diagram  
+Excitation Red  
- Excitation Black  
+Signal Green  
- Signal White

All Capacity  
Cable Length: 5' / 1.5m

| CAPACITY        |        | L     | L1   | L2   | L3    | W    | W1    | H    | H1   | D1   | D         | T         |
|-----------------|--------|-------|------|------|-------|------|-------|------|------|------|-----------|-----------|
| 50/100/150lb    | mm     | 60.33 | 50   | 12.7 | 33.66 | 19.5 | 12.7  | 24.8 | 22.2 | 4.5  | 4.5       | ----      |
|                 | (inch) | 2.38  | 1.97 | 0.50 | 1.33  | 0.77 | 0.5   | 0.98 | 0.87 | 0.18 | 0.18      |           |
| 250lb           | mm     | 60.33 | 50   | 12.7 | 33.66 | 25.4 | 19.05 | 24.8 | 22.2 | 4.5  | 4.5       | ----      |
|                 | (inch) | 2.38  | 1.97 | 0.50 | 1.33  | 1.00 | 0.75  | 0.98 | 0.87 | 0.18 | 0.18      |           |
| 50/100/150lb OL | mm     | 60.33 | 50   | 12.7 | 33.66 | 21   | 12.7  | 24.8 | 22.2 | 4.4  | 4.4       | ----      |
|                 | (inch) | 2.38  | 1.97 | 0.50 | 1.33  | 0.83 | 0.5   | 0.98 | 0.87 | 0.17 | 0.17      |           |
| 100/250lb VT    | mm     | 60.33 | 50   | 12.7 | 33.66 | 25.4 | 19.05 | 24.8 | 22.2 | 6.8  |           | ----      |
|                 | (inch) | 2.38  | 1.97 | 0.50 | 1.33  | 1.00 | 0.75  | 0.98 | 0.87 | 0.26 | 1/4-20UNF |           |
| 100lb BCI       | mm     | 60.33 | 50   | 12.7 | 33.66 | 25.4 | 19.05 | 24.8 | 22.2 | 6.4  | 6.4       | ----      |
|                 | (inch) | 2.38  | 1.97 | 0.50 | 1.33  | 1.00 | 0.75  | 0.98 | 0.87 | 0.25 | 0.25      |           |
| 250lb BCI       | mm     | 60.33 | 50   | 12.7 | 33.66 | 25.4 | 19.05 | 24.8 | 22.2 | 6.4  | 4.5       | ----      |
|                 | (inch) | 2.38  | 1.97 | 0.50 | 1.33  | 1.00 | 0.75  | 0.98 | 0.87 | 0.25 | 0.18      |           |
| 250lb LT        | mm     | 60.33 | 50   | 12.7 |       | 25.4 | 19.05 | 24.8 | 22.2 | 4.4  |           | 1/4-28UNF |
|                 | (inch) | 2.38  | 1.97 | 0.50 |       | 1.00 | 0.75  | 0.98 | 0.87 | 0.17 |           |           |

| SPECIFICATIONS                              |                           |                       |
|---|---------------------------|-----------------------|
| PARAMETER                                   | VALUE                     | UNIT                  |
| NTEP/OIML Accuracy class                    | Non-Approved              |                       |
| Maximum no. of intervals (n)                | 3000                      |                       |
| $Y = E_{\max}/V_{\min}$                     | 5000                      | Maximum available     |
| Standard capacities ( $E_{\max}$ )          | 50, 100, 150, 250         | lbs                   |
| Rated output-R.O.                           | 3.0                       | mV/V                  |
| Rated output tolerance                      | 10                        | ±% of rated output    |
| Zero balance                                | 1                         | ±% of rated output    |
| Non linearity                               | 0.030                     | ±% of rated output    |
| Hysteresis                                  | 0.030                     | ±% of rated output    |
| Non-repeatability                           | 0.020                     | ±% of rated output    |
| Creep error (20 minutes)                    | 0.030                     | ±% of rated output    |
| Zero return (20 minutes)                    | 0.030                     | ±% of rated output    |
| Temperature effect on min. dead load output | 0.0026                    | ±% of rated output/°C |
| Temperature effect on sensitivity           | 0.0015                    | ±% of applied load/°C |
| Compensated temperature range               | -10 to +40                | °C                    |
| Operating temperature range                 | -20 to +60                | °C                    |
| Safe overload                               | 150                       | % of R.C.             |
| Ultimate overload                           | 300                       | % of R.C.             |
| Excitation, recommended                     | 10                        | Vdc or Vac rms        |
| Excitation, maximum                         | 15                        | Vdc or Vac rms        |
| Input impedance                             | 385±5                     | Ohms                  |
| Output impedance                            | 350±3                     | Ohms                  |
| Insulation resistance                       | >5000                     | Mega-Ohms             |
| Construction                                | Nickel plated alloy steel |                       |
| Environmental protection                    | IP66                      |                       |

All Specifications subject to change without notice.

FM Approval

Intrinsically Safe: Class I, II, III; Div. 1 Groups A-G

Non-Incendive: Class I; Div. 2 Groups A-D

## Disclaimer

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