



VB

BENDING BEAM LOAD CELL

applications

- Harsh Environments
- Process Control Weighing
- Belt and Bagging Scales
- Tank, Bin and Hopper Weighing
- Reactor, Mixer and Blender Weighing

features

- Compact Size
- Excellent Performance
- 0.03% Accuracy Class
- Steel or Stainless Steel Element
- Environmentally Sealed-IP67
- VITON® Fluoroelastomer Seals
- Companion Weigh Modules
- Two Year Warranty

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Application Tip: *The Stainless Steel VB3 is specially designed for Washdown and Corrosive Environment applications.*

The VB is a compact, high performance, bonded foil strain gage load cell constructed of Heat Treated steel or Stainless Steel. The VB is designed to accurately measure compression loads in capacities ranging from 25 lbs. to 500 lbs. The "dual-guided" cantilever design reduces sensitivity to off-center and side loading effects. The steel (VB1) version is sealed to IP65. The stainless steel (VB3) version is sealed to IP67 (thoroughly sealed against airborne particles and the effects of immersion up to 1 meter.), using proprietary, multi-redundant environmental barriers, including VITON® Fluoroelastomer Seals to protect the strain gage area and the cable entry, both high failure mode areas in competitive versions of this load cell. The integral cable is durable PE/PVC DuoWrap® jacketed and features a braided, tinned-copper shield for mechanical protection and to minimize the effects of common industrial electrical noise, e.g. RFI and EMI. Versatile companion weigh modules; the *MB1 Series* (Steel) and the *MB3 Series* (Stainless steel) are available for convenient weighing of tanks, bins, hoppers and similar vessels. The attributes of the VB3 make it an ideal choice for reactor, mixer and blender weighing, material handling, packaging, process applications and O.E.M. weighing situations where a well sealed, versatile, high performance load cell solution is needed.



MB1 Weigh Module

Innovative Measurement Solutions





performance

Rated capacities (lbs.):	25, 50, 75, 100, 150, 250 & 500
Rated output (FSO)	3 mV/V ±0.25%
Combined error	≤ 0.03 % FSO
Non-linearity	≤ 0.03 % FSO
Hysteresis	≤ 0.02 % FSO
Non-repeatability	≤ 0.01 % FSO
Creep (20 minutes)	≤ 0.03 % of load
Zero balance	≤ 2 % FSO
Zero Return (20 minutes)	Better than 0.01 % FSO

mechanical

Material:	Alloy tool steel (VB1) or 17-4ph Stainless steel (VB3)
Finish:	Electroless Nickel (Steel) Electro-polished (Stainless steel)
Safe overload	Compression/Tension: 150% FSO Side load: 50% FSO
Ultimate overload	Compression/Tension: 300% FSO Side load: 100% FSO
Deflection	25/50lbs. (0.008"); 100/150 lbs. (0.011"); 250 lbs.(0.016") 500 lbs. (0.025")
Weight	1 lbs.

electrical

Input impedance	350 ohms (nominal)
Output impedance	350 ± 3 ohms
Insulation resistance	>5000 Megohms @ 50VDC
Excitation Voltage	10 V AC/DC (15 V maximum)
Cable Color code:	+ Excitation (red) - Excitation (black) + Output (green) - Output (white) Shield (bare)
Cable type	4-conductor, 22 AWG, PE/PVC DuoWrap® jacket;, tinned-copper shield; free end termination

environmental

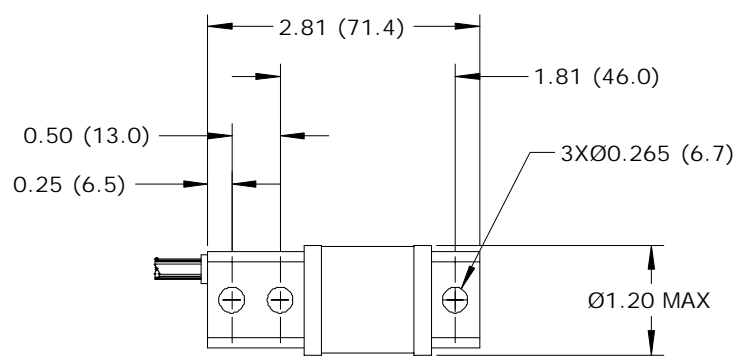


Temperature, operating	0 to +150 °F (-18 to +65°)
Temperature, compensated	14 to +104 °F (-10 to +40°C)
Temperature effects:	Zero < 0.0015% FSO/°F < 0.0026% FSO/°C Output < 0.0008% of Rdg./°F < 0.0014% Rdg./°C
Sealing	IP65 (Steel); IP67 (Stainless)

options

Shunt calibration, Special cable lengths, MS connectors, Load Hardware, Hi-Temp operation, control instrumentation and MB Weigh Modules

dimensions



4-COND, 22 GA, 20 FT LG.

