



ZB4

HERMETICALLY SEALED S BEAM LOAD CELL

applications

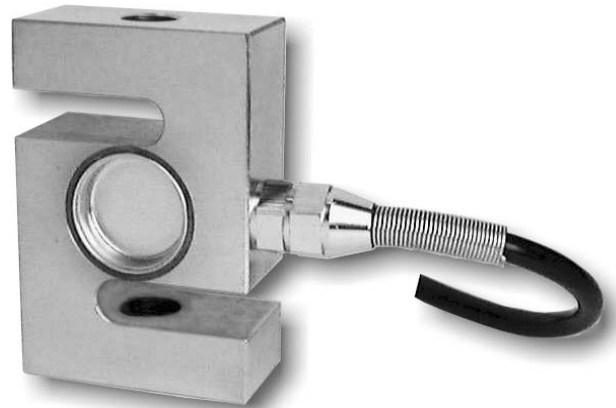
- Tension/Compression Measurements
- *Clean-In-Place* Washdown
- Tank, Bin and Hopper Weighing
- Level and Inventory Monitoring
- OEM and VAR Solutions

features

- 500 to 10,000 lbs. Capacities
- Excellent Performance
- Hermetically Sealed
- Stainless Steel Construction
- 0.03% Accuracy Class
- Application Versatility
- Load Introduction Hardware
- Output Matched For Single Or Multiple Load Cell Applications
- Two Year Warranty

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Application Tip:

The ZB4 is specifically designed for Clean-In-Place, Heavy Washdown and Corrosive Environment applications.

The ZB4 Series is a high performance, bonded foil strain gage load cell constructed of stainless steel. The ZB4 Series is designed to accurately measure tension or compression loads in capacities ranging from 500 lbs. to 10,000 lbs. The integrated loading brackets reduce sensitivity to off-center and side loading effects, while making the load cell readily adaptable to in-line measurements. To achieve a sealing rating of IP67 (thoroughly sealed against airborne particles and the effects of immersion up to 1 meter.) proprietary, composite environmental barriers are integrated to protect the load cell. Sealing ratings of IP 66 (high pressure wash down) and IP 68 (submersion) are achieved using suitable conduit and the standard cable conduit adapter. The ZB4 Series is an excellent alternative to older "canister" load cell designs, offering stainless steel construction, hermetic sealing, premium performance and much lower cost. A "canister" is merely a load cell in a can, a more costly sealing technique relative to modern methods. The ZB4 Series output signal is calibrated to a close tolerance to facilitate use with summing/junction devices in multiple load cell applications. Each load cell is provided with a durable polyurethane-jacketed cable with a tin-copper shield for mechanical protection and to minimize the effects of RFI and EMI. A variety of companion loading accessories include the *MA Series* Tension Cell Mounts, rod end bearings, eyebolts, load buttons, turnbuckles and others. The attributes of the ZB4 Series make it an ideal choice for measurements in the laboratory, process applications, general force measurements and weighing situations where a well-sealed, versatile, high performance load cell solution is needed.

Innovative Measurement Solutions





performance

Clean-In-Place Washdown Ready!

Rated capacities ⁽¹⁾ (lbs.):	500, 750, 1K, 1.5K, 2K, 2.5K, 3K, 5K, & 10K
Rated output (FSO)	2 mV/V ± 10 %
Combined error	≤ 0.03 % FSO
Non-linearity	≤ 0.03 % FSO
Hysteresis	≤ 0.03 % FSO
Non-repeatability	≤ 0.01 % FSO
Creep (20 minutes)	≤ 0.03 % of load
Zero balance	≤ 1 % FSO
Zero return (20 minutes)	Better than 0.03 % FSO

⁽¹⁾ ("K" = thousand)

mechanical

Material:	17-4PH Stainless steel
Clean-In-Place Finish:	Electro-polished
Safe overload	Compression: 150% FSO Tension: 150% FSO
Ultimate overload	Compression: 300% FSO Tension: 300% FSO
Deflection	See Table Below
Weight	See Table Below

electrical

Input impedance	385 ± 5 ohms
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, tin-copper braided shield, polyurethane jacket
Cable termination	Finished conductors
Cable gland fitting	Compound; strain relief; stainless

environmental

66 67 68 **IP** ENVIRONMENTAL PROTECTION RATING

Temperature, operating	4 to +140 °F (-20 to +60°C)
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	IP66/67; Hermetic; Welded

options

Shunt calibration, Special cable lengths, MS connectors, Companion loading hardware, instrumentation and **MA Series** Tension Cell Mount

dimensions

100% CUSTOMER SATISFACTION GUARANTEED

CABLE: 4-CONDUCTOR, 22 AWG, POLYURETHANE JACKET, SHIELDED, 20 FT LENGTH STD.

"T" THREAD
2 PLACES

DIMENSIONAL TAB BLOCK

CAPACITY (LB)	"A"	"B"	"C"	"T"	DEFLECTION	WEIGHT
500 - 3K LB	2.00	2.96	1.00	1/2-20 UNF	0.008	2 LBS (0.9 KG)
5K - 10K LB	3.00	4.25	1.00	3/4-16 UNF	0.012	4.0 LBS (1.8 KG)



MA4 Stainless Steel Tension Weigh Module
(Shown with ZB3 Load Cell)

