



# XA



## PRECISION SHEAR BEAM LOAD CELL

### *applications*

- Compression Measurements
- Process Control Weighing
- Tank, Bin and Hopper Weighing
- Reactor, Mixer and Blender Weighing
- OEM and VAR Solutions



### *features*

- 500 to 20,000 lbs. Capacities
- Excellent Performance
- Application Versatility
- Load Introduction Hardware
- Steel or Stainless Steel Element
- 0.02% Accuracy Class-NTEP
- IP67 Environmental Sealing
- Matched Output Sensitivities
- Companion Weigh Modules
- Two Year Warranty

#### *NIST H-44 NTEP CERTIFIED "LEGAL-FOR-TRADE"*

- CLASS III: 3,000D/Single and 5,000D/Multiple
- 1,000 Through 10,000 lbs. in Steel or Stainless Steel

The XA Series is a high performance, bonded foil strain gage load cell constructed of alloy tool steel (XA1) or stainless steel (XA3). The XA series is designed to accurately measure compression loads in capacities ranging from 500 lbs. to 20,000 lbs. The robust, rectangular shear beam design readily tolerates angular, eccentric and side loading effects, with minimal sensitivity to these anomalies. 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 strain gage area. The cable is a durable polyurethane-jacketed cable with a tin-copper braided shield for mechanical protection and to minimize the effects of RFI and EMI. The XA Series output signals are calibrated to a close tolerance to facilitate their use with summing/junction devices for multiple load cell applications. Versatile companion weighing modules, the MB Series, MF Series and the MG Series, are available for convenient weighing of tanks, bins, hoppers and similar vessels. The attributes of the XA Series make it an ideal choice for reactor, mixer and blender weighing, material handling, and O.E.M. weighing situations where a versatile, high performance load cell solution is needed.

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MB Weigh Module



MF FlexPoint Weigh Module



MG Weigh Module

*Innovative Measurement Solutions*





performance



CLASS III: 3,000D/Single and 5,000D/Multiple  
1,000 Through 10,000 lbs. Steel & Stainless Steel

Rated capacities <sup>(1)</sup> (lbs.):	500, 1K, 2K, 2.5K, 4K, 5Kse, 5K, 10K, 15K & 20K
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
Side Load Rejection Ratio	≤ 500:1
Creep (20 minutes)	≤ 0.03 % of load
Zero balance	≤ 1 % FSO
Zero return (20 minutes)	Better than 0.01 % FSO

<sup>(1)</sup> ("K" = thousand)

mechanical

Material:	Alloy tool steel (XA1) 17-4ph Stainless steel (XA3)
Finish:	Electroless nickel plated (XA1) Electro-polished (XA3)
Safe overload	Compression/Tension: 150% FSO
Ultimate overload	Side load: 100% FSO Compression/Tension: 300% FSO
Deflection	Side load: 200% FSO
Weight	See Table Below 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

environmental



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	IP67; Multi-redundant

options

Shunt calibration, Special cable lengths, MS connectors, Hi-Temp operation, control instrumentation and MB, MG & MF Weigh Modules

dimensions

CAPACITY (LB)	"A1"	"A2"	"B"	"C"	"D"	"E"	"H"	"T"	DEFLECTION (IN)	WEIGHT (LB)
500	1.22	1.00	5.12	0.62	1.00	3.00	0.53	1/2-20 UNF-2B	0.013	2.5
1K - 2.5K	1.22	1.22	5.12	0.62	1.00	3.00	0.53	1/2-20 UNF-2B	0.014	2.5
4K - 5Kse	1.22	1.22	5.12	0.62	1.00	3.00	0.53	1/2-20 UNF-2B	0.022	2.5
5K	1.47	1.47	6.75	0.75	1.50	3.75	0.78	3/4-16 UNF-2B	0.020	4.0
10K	1.47	1.47	6.75	0.75	1.50	3.75	0.78	3/4-16 UNF-2B	0.027	4.0
15K - 20K	1.97	1.97	8.75	1.00	2.00	4.75	1.03	1-14 UNF-2B	0.040	8.0

100% CUSTOMER SATISFACTION GUARANTEED

