



# YB

## SINGLE POINT LOAD CELL

### *applications*

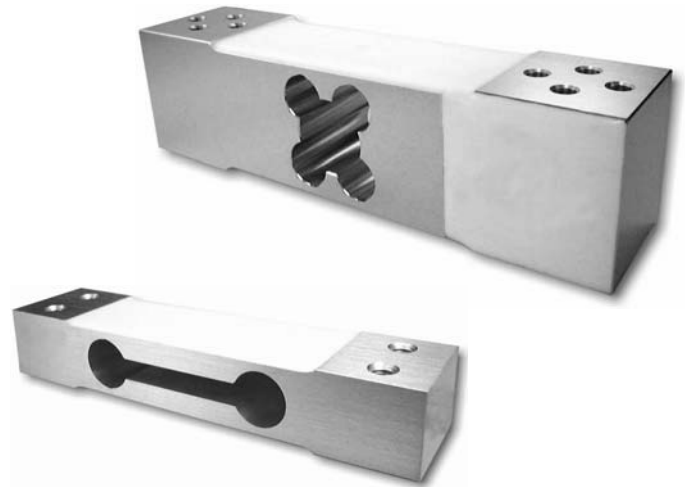
- Low Force Measurements
- Hopper & Net weight Weighing
- Platform and Belt Conveyor Scales
- Moment/Off-Center Loads
- OEM and VAR Solutions

### *features*

- 1.2 kg to 200 kg Capacities
- Low Profile/Compact Size
- Excellent Performance
- 0.02% Accuracy Class-NTEP
- Application Versatility
- Aluminum or Stainless Steel
- IP67 Environmental Sealing
- Low Price/Performance Ratio
- Two Year Warranty

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*NIST H-44 NTEP "Legal-For-Trade" Performance Grade*

- CLASS III: 5,000D/Single
- 3 kg Through 30 kg Capacities

The YB Series is a low profile, high performance, bonded foil strain gage load cell constructed of transducer-quality aluminum alloy (YB6) or stainless steel (YB3). The YB Series is designed to accurately measure compression loads for single cell applications in the capacity range of 1.2 kg to 200 kg. The field proven dual-guided cantilever beam design readily tolerates moments induced by angular, eccentric and off-center loading, with minimal sensitivity to these anomalies. To achieve a sealing rating of IP67 (thoroughly sealed against airborne particles and the effects of immersion in water up to 1 meter.) proprietary, multi-redundant environmental barriers are integrated to protect the strain gage area and all electronic components. The cable is a durable PE/PVC double-jacketed cable (PVC-jacketed 35 kg and below), with a tinned-copper braided shield for mechanical protection and to minimize the effects of RFI and EMI. The attributes of the YB Series makes it an ideal choice for low force measurements, small hopper and platform scale weighing, and

O.E.M. weighing situations where a moment-compensated, well sealed, versatile and high performance load cell solution is needed. Non-standard or custom configurations can be accommodated consistent with solutions-driven requirements.

*Innovative Measurement Solutions*





## performance

Rated capacities (kg):	1.2, 2, 3, 6, 10, 15, 20, 30, 35, 60, 100 & 200
Rated output (FSO)	2 mV/V ± 10%
Combined error	≤ 0.025 % FSO
Non-linearity	≤ 0.02 % FSO
Hysteresis	≤ 0.02 % FSO
Non-repeatability	≤ 0.01 % FSO
Moment Sensitivity	See Table Below
Maximum Moment	See Table Below
Creep (30 minutes)	≤ 0.03 % of load
Zero balance	≤ 3 % FSO
Zero return (20 minutes)	Better than 0.01 % FSO

## mechanical

Material:	Aluminum Alloy (YB6) Stainless steel (YB3)
Finish:	Natural (YB6) Electro-polished (YB3)
Safe overload	Compression/Tension: 150% FSO Side load: 50% FSO
Ultimate overload	Compression/Tension: 300% FSO Side load: 100% FSO
Deflection	< 0.016" (0.4 mm) nominal
Weight	See Table Below

## electrical

Input impedance	410 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, shielded, PE/PVC jacket (PVC-jacketed 1.2 kg - 35 kg)

## environmental

67



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; Dust & limited submersion

## options

Non-standard variations, Special cable lengths, MS connectors, Shunt calibration and Companion instrumentation.

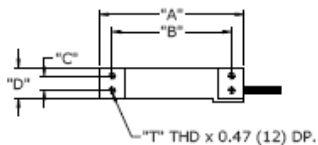
## dimensions

**DIMENSIONAL TAB BLOCK**

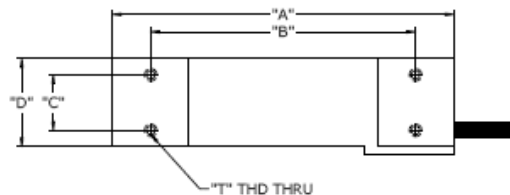
CAPACITY	"A"	"B"	"C"	"D"	"E"	"F"	"T"	WEIGHT
1 - 3 KG	2.76 (70)	2.28 (58)	0.28 (7)	0.59 (15)	0.87 (22)	-----	M3 X 0.5	0.05 KG
6 - 20 KG	5.12 (130)	4.17 (106)	0.59 (15)	1.18 (30)	0.87 (22)	-----	M6 X 1.0	0.1 KG
30 - 35 KG	5.12 (130)	4.17 (106)	0.59 (15)	1.57 (40)	0.87 (22)	-----	M6 X 1.0	0.2 KG
60 - 200 KG	5.91 (150)	4.60 (117)	0.59 (15)	1.38 (35)	1.57 (40)	0.75 (19)	M6 X 1.0	0.6 KG

CAPACITY	MAX MOMENT/ PLATFORM SIZE	MOMENT SENSITIVITY % READING PER INCH
1 - 3 KG	4 INCH x CAPACITY 8 INCH x 8 INCH	0.009
6 - 20 KG	6 INCH x CAPACITY 12 INCH x 12 INCH	0.005
30 - 35 KG	6 INCH x CAPACITY 12 INCH x 12 INCH	0.005
60 - 200 KG	8 INCH x CAPACITY 16 INCH x 16 INCH	0.004

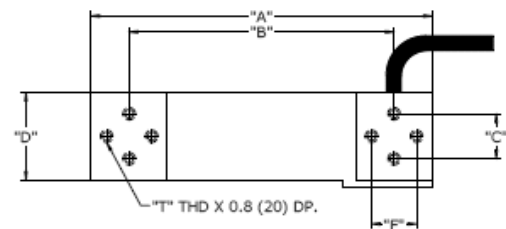
100%  
CUSTOMER  
SATISFACTION  
GUARANTEED

**1 - 3 KG**

CABLE LENGTH: 12 IN (30 cm)

**6 - 35 KG**

CABLE LENGTH: 18 IN (45 cm)

**60 - 200 KG**

CABLE LENGTH: 6.5 FT (2 m)