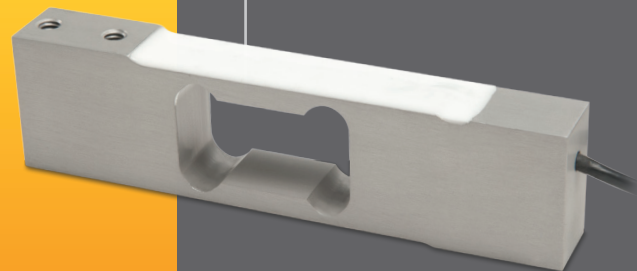




## Single Point Load Cell

# YN Series

**The YN Series is an industrial grade, high performance strain gage load cell constructed of aluminum alloy. It is designed to accurately measure compression loads ranging from 0-1 kg to 0-100 kg.**



The YN Series is an industrial-grade, high performance, bonded foil strain gage load cell constructed of aluminum alloy. The YN Series is designed to accurately measure compression loads for single cell applications in capacities ranging from 0-1 kg to 0-100 kg. Developed specifically to tolerate unusually high moments resulting from off-center loading in single load cell platform applications, this design has been adapted to small hopper applications such as loss-in-weight and net weighing. The YN Series construction and element geometry delivers exceptional performance and readily tolerates moments induced by angular, eccentric and off-center loading, with minimal sensitivity to these anomalies. This load cell is Harsh Environment Sealed (IP67-Limited Immersion) by virtue of proprietary, multi-redundant barriers uniquely integrated to protect all internal components. The integral premium, instrumentation grade cable features a durable PVC jacket over a foil/Mylar shield for superior mechanical protection and to minimize the unwanted electrical effects of RFI and EMI. The YN Series is particularly well suited to low force measurements as well as O.E.M. weighing applications in packaging, filling, bottling and any situation where a moment-compensated, well sealed, high performance load cell solution is required. Non-standard or custom configurations can be accommodated consistent with solutions driven requirements.

### APPLICATIONS

- Compression Measurements
- Hopper & Net Weight Weighing
- Platform and Belt Conveyor Scales
- High Moment/Off-Center Loading
- OEM and VAR Solutions

### FEATURES

- 1 kg to 100 kg Capacities
- Aluminum or Stainless Steel
- Low Profile/Compact Size
- 0.02% Accuracy Class - NTEP Grade
- High Temperature Versions
- IP67 Environmental Sealing
- Two Year Warranty



For more information call **1-888-545-8988**

**SENTRAN, LLC** 4355 LOWELL STREET, ONTARIO, CA 91761, U.S.A.  
**888-545-8988** T: 909-605-1544 FAX: 909-605-6305 [www.sentranllc.com](http://www.sentranllc.com)

# YN Series Specifications

Innovative Measurement Solutions



## PERFORMANCE

Rated Capacities (kg)	1, 3, 5, 7, 10, 15, 20, 30, 50, 75, 100
Rated Output (FSO)	2 mV/V
Output Tolerance	±10 % R.O
Combined Error Band	≤ 0.02 % FSO
Non-Linearity	≤ 0.02 % FSO
Hysteresis	≤ 0.02 % FSO
Non-Repeatability	≤ 0.01 % FSO
Zero Balance	± 5 % FSO
Creep (30 Minutes)	≤ 0.03 % of load
Zero Return (30 Minutes)	0.01 % of load
Moment Sensitivity	0.018 % FSO/Inch
Maximum Moment	See Dimensions Page
Ultimate Moment	175 % of Maximum Moment

## MECHANICAL

Load Cell Material	Aluminum Alloy
Load Cell Finish	Anodized
Safe Overload	Compression 150% FSO
	Side Load 30% FSO
Ultimate Overload	Compression 300% FSO
	Side Load: 100% FSO
Deflection	See Dimensions Table
Weight	See Dimensions Table
Mounting Bolt Torque	<a href="#">Torque Table</a>

## ELECTRICAL

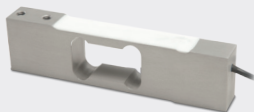
Input Impedance	415 ± 15 ohms
Output Impedance	350 ± 3 ohms
Insulation Resistance	>5000 Megohms @ 50VDC
Excitation Voltage	10 V AC/DC (15 V maximum)
Cable Color Code	+ Excitation (Green)
	- Excitation (Black)
	+ Signal (Red)
	- Signal (White)
	+ Sense (Blue)
	- Sense (Brown)
	Shield (Natural)
Cable Type	6-conductor, 26 AWG, PVC jacket, Aluminum Mylar Shield, Diameter: 0.188"
Cable Length	See Dimensions Table
Cable Termination	Finished Conductors
Cable Seal	Epoxy; Conformal

## ENVIRONMENTAL

Temperature, Operating	0 to +150 °F (-18 to +66°C)
Temperature, Compensated	14 to +104 °F (-10 to +40°C)
Temperature Effects	Zero < 0.003% FSO/°F
	< 0.005% FSO/°C
Temperature Effects	Output < 0.0008% of Rdg./°F
	< 0.0014% Rdg./°C
Temperature, Storage	-40 to +170 °F (-40 to +77°C)
Sealing	IP67, Multi-redundant; Limited Immersion Tolerance

# YN Typical System Configuration

## SENSING LOAD CELL(S)



## SIGNAL CONDITIONING

Analog Transmitters



Serial Transmitters



Digital Indication



Process Control



Batch Control



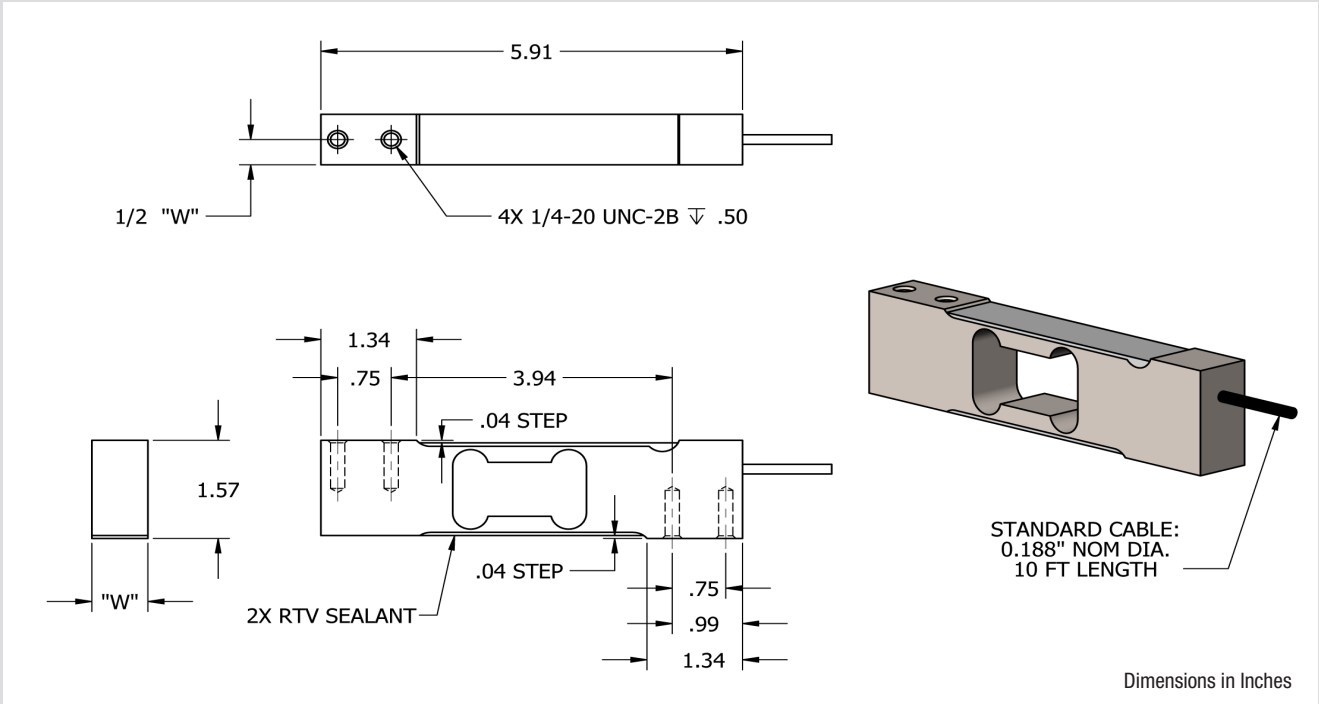
Data Acquisition



## OUTPUT OPTIONS

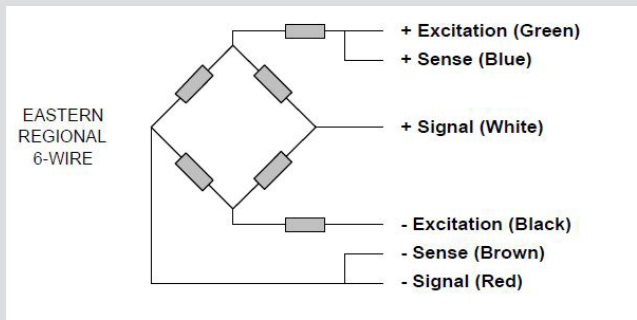
- 0-5 VDC
- 0-10VDC
- ±5 VDC
- ±10 VDC
- 4-20 mA
- 0-20 mA
- RS-232
- RS-422
- RS-485
- 20 mA Serial Loop
- Ethernet
- Profibus DP
- DeviceNet
- CANOpen
- ControlNet
- Modbus RTU
- Wireless

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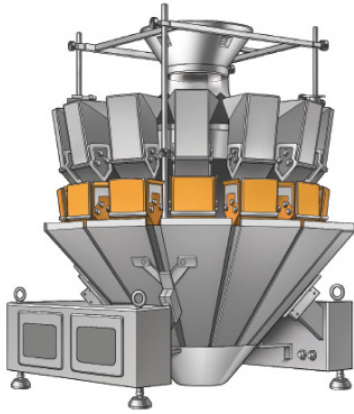
Capacity (KGS)	W	Deflect	Weight
1, 3, 5, 7, 10, 15, 20, 30	0.79	0.011"	0.5 LBS
50, 75, 100	1.00	0.013"	0.5 LBS

# YN Wiring Diagram





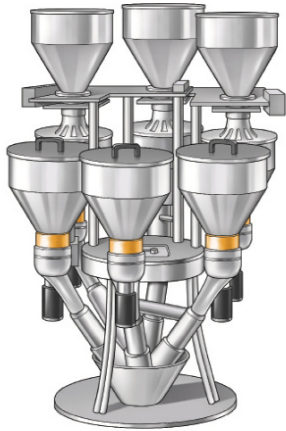
Net Weighing



Precious Gas Scale



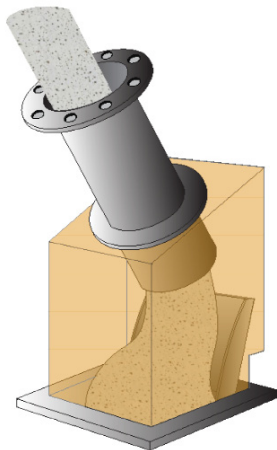
Gravimetric Multi-Component Feeder



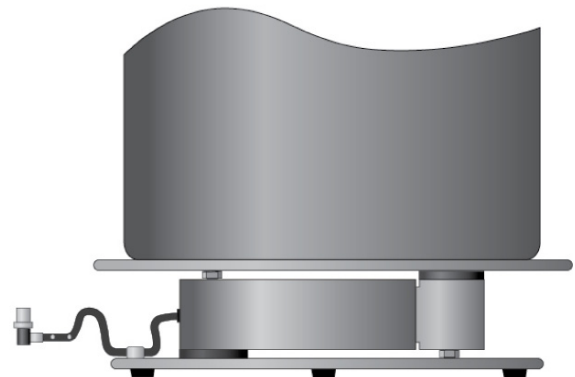
Loss-In-Weight



Solids Flow Control



Bottle/Tank Platform Weighing



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