



Single Point Load Cell

YK Series

The YK Series is a robust, high performance, bonded foil strain gage load cell. It is designed to accurately measure compression loads for single cell applications in capacity ranges of 0-10 lbs. to 0-200 lbs.



The YK Series is a robust, high performance, bonded foil strain gage load cell constructed of aluminum alloy or of electro-polished stainless steel (YK3). The YK Series is designed to accurately measure compression loads for single cell applications in the capacity range of 0-10 lbs. to 0-200 lbs. The field proven triple-beam design readily tolerates high 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. Additional protection is provided by the stainless steel side covers, which also serve to enhance the aesthetics of the YK Series as a component of an assembly or measurement system. The cable is a durable polyurethane-jacketed cable, with a tinned-copper braided shield for mechanical protection and to minimize the effects of RFI and EMI. The attributes of the YK3 Series makes it an ideal choice for low range force measurements, small hopper and platform weighing, conveyor scales and O.E.M. weighing situations where an exceptionally rugged moment compensated, well sealed, and high performance load cell solution is needed. Non-standard or custom configurations can be accommodated consistent with solutions-driven requirements.



APPLICATIONS

- Hopper & Netweight Weighing
- Platform and Belt Conveyor Scales
- Checkweighing
- High Moment/Off-Center Loading
- OEM and VAR Solutions

FEATURES

- 10 to 200 lbs. Capacities
- Low Profile/Compact Size
- High Temperature Versions
- 0.03% Accuracy Class
- Aluminum or Stainless Steel
- IP67 Environmental Sealing
- Two Year Warranty

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

YK Series Specifications

Innovative Measurement Solutions



PERFORMANCE

Rated capacities (lbs.)	10, 15, 25, 50, 100 & 200
Rated Output (FSO)	2 mV/V
Output Tolerance	±25/-10 % R.O
Combined Error Band	≤ 0.03 % FSO
Non-Linearity	≤ 0.03 % FSO
Hysteresis	≤ 0.02 % FSO
Non-Repeatability	≤ 0.01 % FSO
Zero Balance	± 1 % FSO
Creep (30 Minutes)	≤ 0.03 % of load
Zero Return (30 Minutes)	0.01 % of load
Moment Sensitivity	0.008 % FSO/Inch
50 to 200 lbs	0.020 % FSO/Inch
Maximum Moment	See Dimensions Page
Ultimate Moment	200 % of Maximum Moment

MECHANICAL

Material	Stainless steel
Finish	Natural
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	Torque Table

ELECTRICAL

Input Impedance	400 ± 35 ohms
Output Impedance	352 ± 3 ohms
Insulation Resistance	>5000 Megohms @ 50VDC
Excitation Voltage	10 V AC/DC (15 V maximum)
Cable Color Code	+ Excitation (red) - Excitation (black) + Signal (green) - Signal (white) Shield (natural)
Cable Type	4-conductor, 22 AWG, PUR jacket, Foil Shield, Diameter: 0.190"
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 < 0.015% FSO/°F < 0.0026% 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

YK Typical System Configuration

SENSING LOAD CELL(S)



SIGNAL CONDITIONING

Analog Transmitters



Serial Transmitters



Digital Indication



Process Control



Batch Control



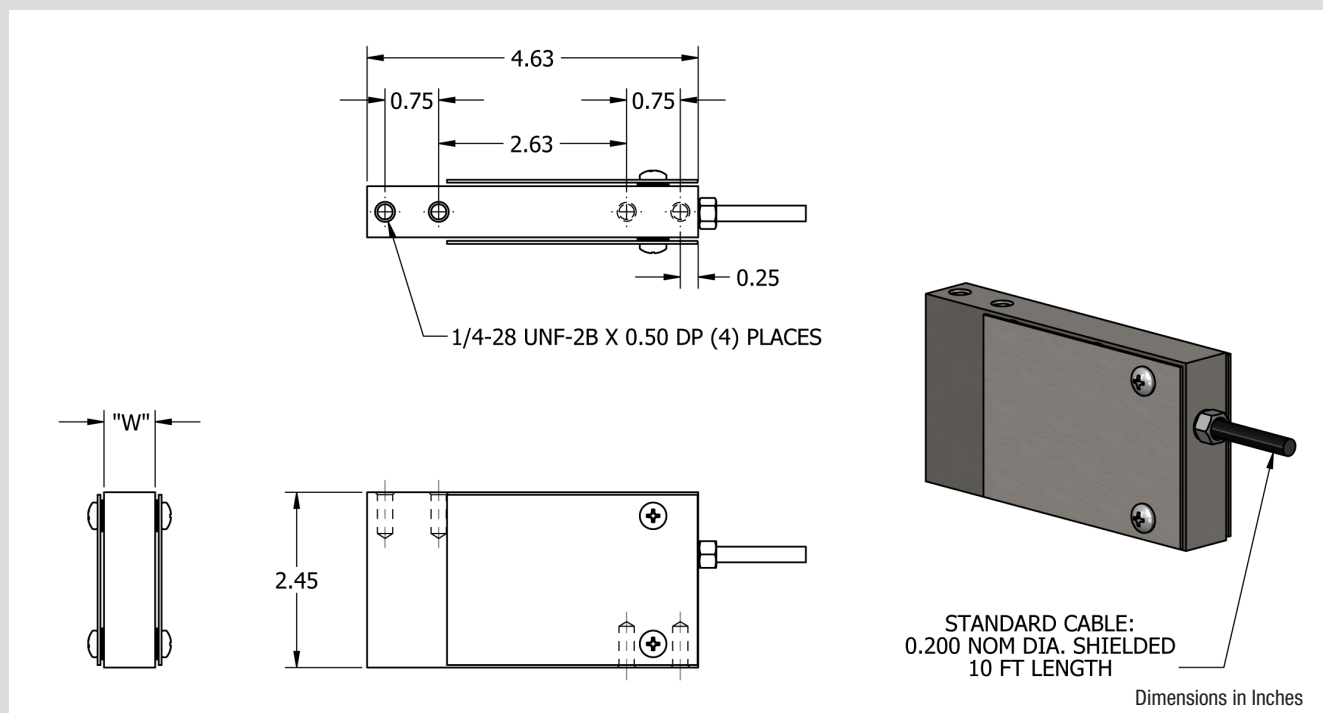
Data Acquisition



OUTPUT OPTIONS

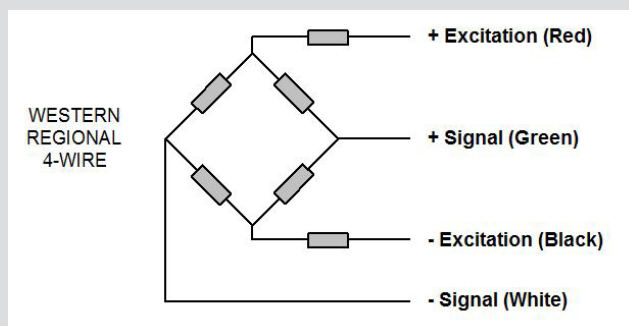
0-5 VDC
0-10VDC
±5 VDC
±10 VDC
4-20 mA
0-20 mA
RS-232
RS-422
RS-485
20 mA Serial Loop
Ethernet
Profibus DP
DeviceNet
CANOpen
ControlNet
Modbus RTU
Wireless

www.sentranllc.com



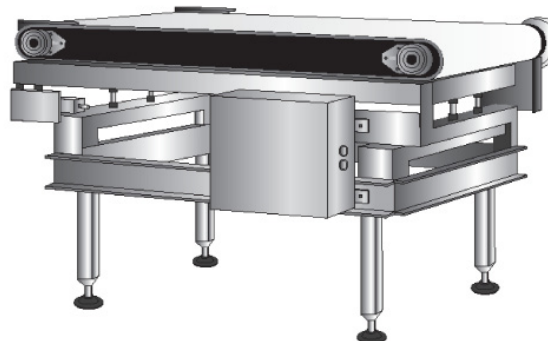
Capacity (LBS)	W	Maximum Moment (Inches X Capacity)	Deflect	Weight
10	0.46"	5	0.020"	1.0 LBS
15	0.46"	5	0.020"	1.0 LBS
25	0.46"	5	0.020"	1.0 LBS
50	0.72"	4	0.020"	1.5 LBS
100	0.72"	4	0.020"	1.5 LBS
200	0.72"	3	0.020"	1.5 LBS

YK Wiring Diagram





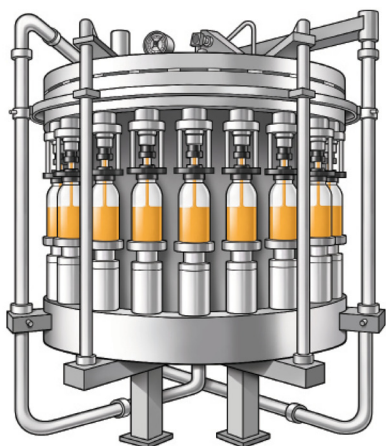
Check Weighing



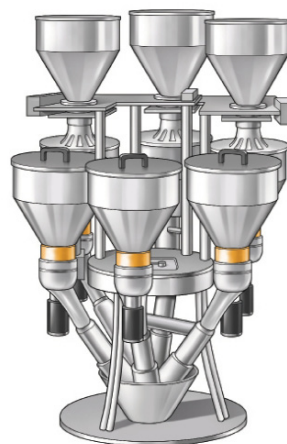
Loss-In-Weight



Automated Bottle Filling



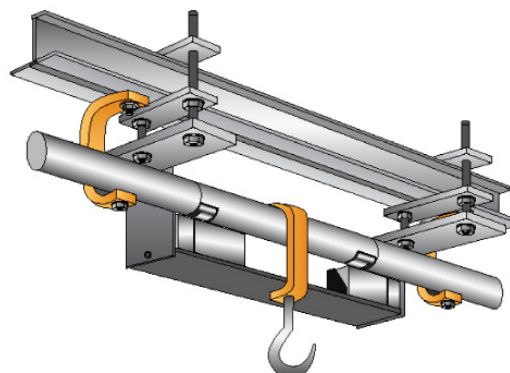
Gravimetric Multi Component Feeder



Precious Gas Scale



Monorail Scale



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