



Single Point Load Cell

YO Series

The YO Series is an industrial grade, high performance strain gage load cell constructed of hermetically sealed stainless steel. It is designed to accurately measure compression loads ranging from 0-6 kgs to 0-60 kgs.



The YO Series is an industrial-grade, high performance, bonded foil strain gage load cell constructed of electro-polished stainless steel. The YO Series is designed to accurately measure compression loads for single cell applications in the capacity range of 0-6 kgs. to 0-60 kgs. The parallelogram design readily tolerates moments induced by angular, eccentric and off-center loading, with minimal sensitivity to these anomalies. To achieve a sealing rating of IP66 (Hostile Environment Sealed/High Pressure Jets) and IP68 (Hermetically Sealed/Continuous Immersion) proprietary, multi-redundant environmental barriers are integrated to protect the strain gage area and all electronic components. The integral premium, instrumentation grade 4-conductor cable features a Teflon® jacket with a tinned-copper braided shield for superior mechanical protection and to minimize the unwanted electrical effects of RFI and EMI. The attributes of the YO Series makes it an ideal choice for very low range force measurements, filling machines and platform weighing, checkweigher scales and O.E.M. weighing situations where a low capacity, moment compensated, well sealed and high performance load cell solution is needed.



APPLICATIONS

- Compression Measurements
- High Moment/Off-Center Loading
- Hopper & Net Weighing
- Bio-Medical Weighing
- Check Weighing & Filling Machines
- Platform and Belt Conveyor Scales
- OEM and VAR Solutions

FEATURES

- 6-60 kg Capacities
- Welded, Hermetically Sealed
- Stainless Steel Construction
- IP66/68 Environmental Sealing
- Low Extraneous Load Sensitivity
- Up to 0.05% Accuracy Class
- Metric and SAE Versions
- Two Year Warranty

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

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YO Series Specifications

Innovative Measurement Solutions



PERFORMANCE

| | |
|--------------------------|-------------------------|
| Rated Capacities (kg) | 6, 12, 30, 60 |
| Rated Output (FSO) | 2 mV/V |
| Output Tolerance | ±10 % R.O |
| Combined Error Band | ≤ 0.05 % FSO |
| Non-Linearity | ≤ 0.05 % FSO |
| Hysteresis | ≤ 0.03 % FSO |
| Non-Repeatability | ≤ 0.02 % FSO |
| Zero Balance | ± 1 % FSO |
| Creep (30 Minutes) | ≤ 0.06 % of load |
| Zero Return (30 Minutes) | 0.06 % of load |
| Moment Sensitivity | 0.010 % FSO/Inch |
| Maximum Moment | See Dimensions Page |
| Ultimate Moment | 200 % of Maximum Moment |

MECHANICAL

| | |
|----------------------|---|
| Load Cell Material | Stainless Steel |
| Load Cell Finish | Natural |
| Safe Overload | Compression 150% FSO Side Load 100% FSO |
| Ultimate Overload | Compression 300% FSO Side Load: 150% FSO |
| Deflection | See Dimensions Table |
| Weight | See Dimensions Table |
| Mounting Bolt Torque | Torque Table |

ELECTRICAL

| | |
|-----------------------|--|
| Input Impedance | 400 ± 6 ohms |
| Output Impedance | 350 ± 7 ohms |
| Insulation Resistance | >5000 Megohms @ 50VDC |
| Excitation Voltage | 10 V AC/DC (15 V maximum) |
| Cable Color Code | + Excitation (Green) - Excitation (Black) + Signal (White) - Signal (Red) + Sense (Yellow) - Sense (Blue) Shield (Natural) |
| Cable Type | 6-conductor, 22 AWG, PVC jacket, Tinned Copper Braid, Diameter: 0.200" |
| Cable Length | See Dimensions Table |
| Cable Termination | Finished Conductors |
| Cable Seal | Molded Rubber; Conformal |

ENVIRONMENTAL

| | |
|--------------------------|---|
| Temperature, Operating | -40 to +176 °F (-40 to +80°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 < 0.003% of Rdg./°F < 0.005% Rdg./°C |
| Temperature, Storage | -40 to +170 °F (-40 to +77°C) |
| Sealing | IP66, Multi-redundant; High Pressure Resistant IP68, Multi-redundant; Continuous Immersion |
| FM Approval | |
| Intrinsically Safe: | Class I, II, III; Div.1 Groups A-G |
| Non-Incendive: | Class 1; Div.2 Groups A-D |

YO Typical System Configuration

SENSING LOAD CELL(S)



SIGNAL CONDITIONING

Analog Transmitters



Serial Transmitters



Digital Indication



Process Control



Batch Control



Data Acquisition

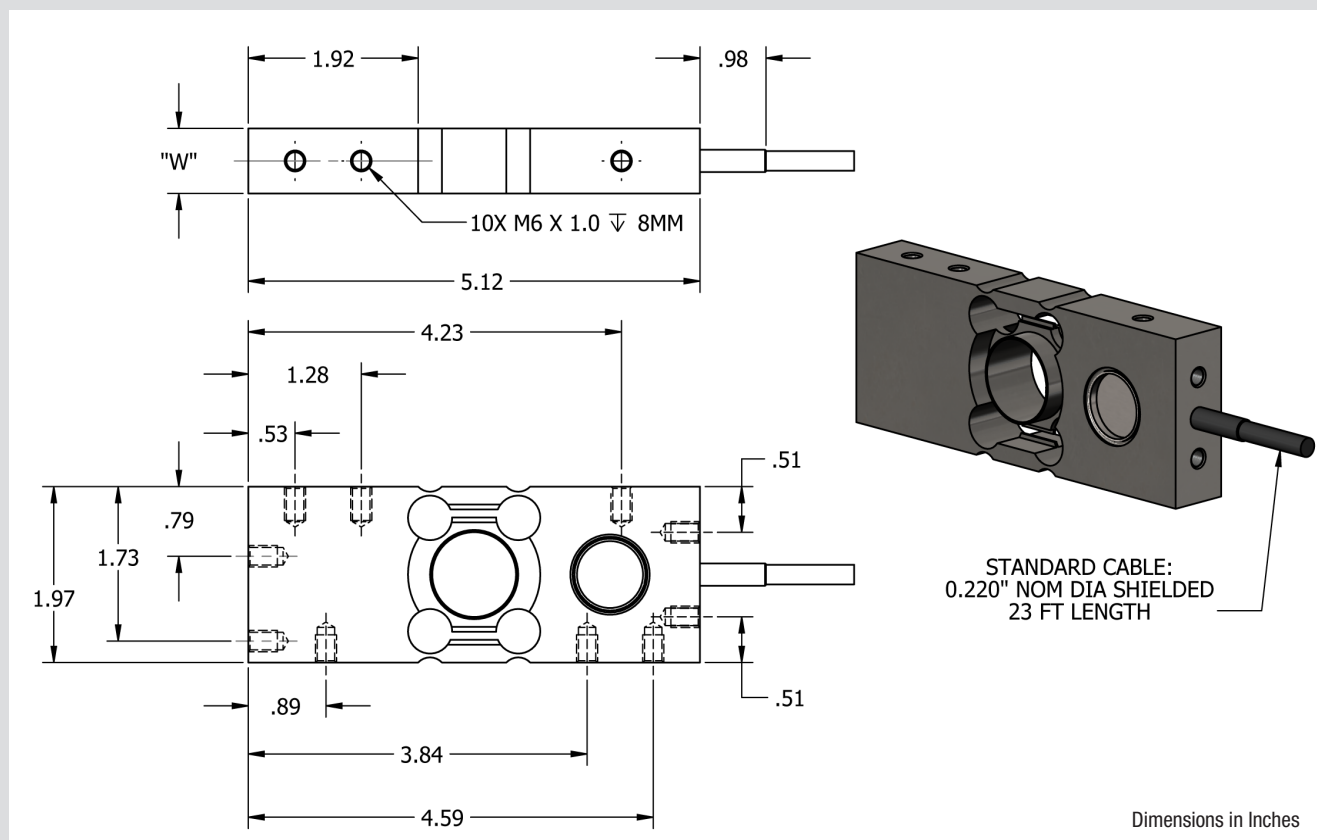


OUTPUT OPTIONS

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

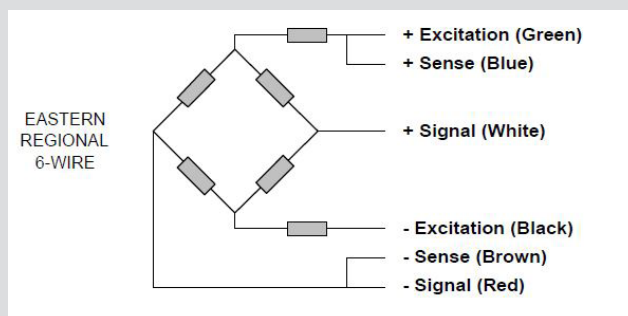
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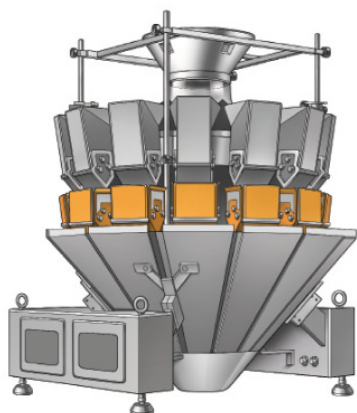
| Capacity (KGS) | W | Deflect | Weight |
|----------------|------|---------|---------|
| 6 | 0.73 | 0.009" | 1.5 LBS |
| 12 | 0.73 | 0.007" | 1.5 LBS |
| 30 | 0.73 | 0.006" | 1.5 LBS |
| 60 | 0.96 | 0.009" | 2.0 LBS |

YN Wiring Diagram

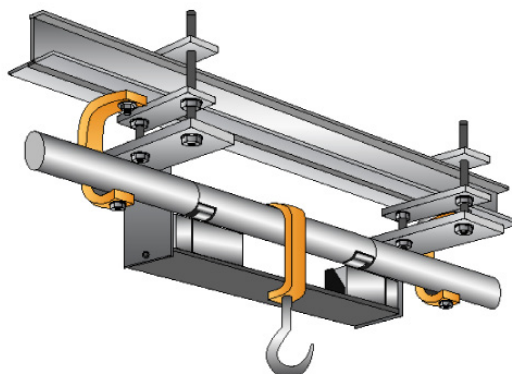




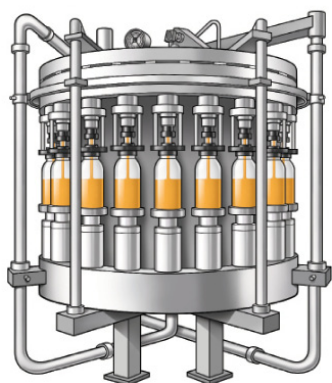
Net Weighing



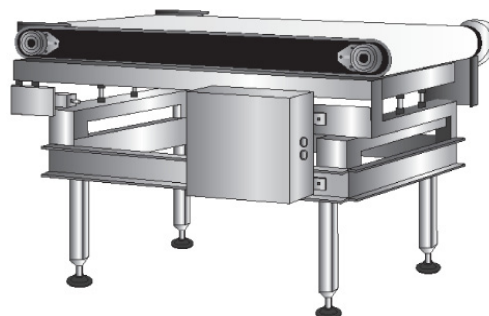
Monorail Scale



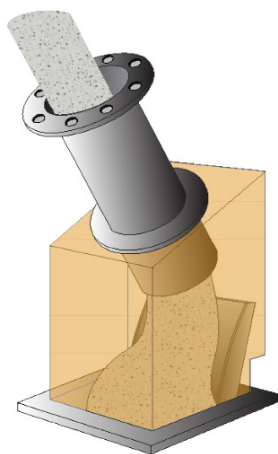
Automated Bottle Filling



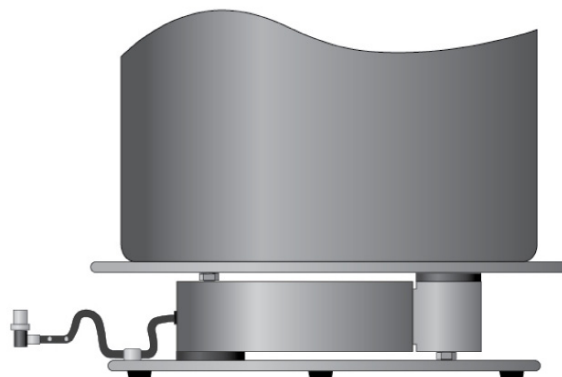
Check Weighing



Solids Flow Control



Bottle/Tank Platform Weighing



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