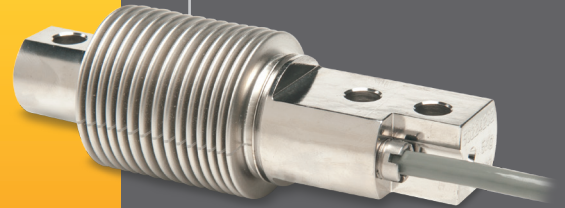




## Bending Beam Load Cell

# VE Series

**The VE Series is a compact, high performance, strain gage load cell constructed stainless steel. The VE Series is designed to accurately measure compression loads ranging from 0-10 kgs to 0-250 kgs.**



The VE Series is a compact, high performance, bonded foil strain gage load cell constructed of stainless steel. The VE Series is designed to accurately measure compression loads in capacities ranging from 0-10 kg to 0-250 kg. The dual-guided cantilever design yields exceptional performance in a very compact package. This load cell is Hostile Environment Sealed (IP66-High Pressure Jets) and Harsh Environment Sealed (IP67-Limited Immersion) by virtue of proprietary, multi-redundant barriers uniquely integrated to protect all internal components, including a flexible stainless steel bellows and welded seals to protect the strain gage area. The integral cable is durable, polyurethane jacketed and features a braided, tinned-copper shield for mechanical protection and to minimize the effects of common industrial electrical noise, e.g. RFI and EMI. The environmentally sealed cable entry incorporates a stainless steel cable gland fitting and a strain relief for the cable. The attributes of the VE Series make it an ideal choice for reactor, mixer and blender weighing, material handling, packaging, process applications and O.E.M. weighing situations where a well sealed, versatile, high performance load cell solution is needed.



### APPLICATIONS

- Compression Measurements
- Washdown/Corrosive Environments
- Process Control Weighing
- Belt and Bagging Scales
- Tank, Bin and Hopper Weighing
- Reactor, Mixer and Blender Weighing

### FEATURES

- 10 Kg To 500 Kg Capacities
- Compact Size
- 0.03% Accuracy Class
- Stainless Steel Construction
- Welded, Hermetic Sealing
- Environmentally Sealed-IP66/67
- Companion Weigh Modules
- Loading Accessories Available
- 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)

# VE Series Specifications

Innovative Measurement Solutions



## PERFORMANCE

Rated capacities (kg)	5, 10, 20, 30, 50, 100, 200, 350, 500
Rated Output (FSO)	2 mV/V
Output Tolerance	±0.1 % R.O.
Combined Error Band	≤ 0.05 % FSO
Non-Linearity	≤ 0.05 % FSO
Hysteresis	≤ 0.05 % FSO
Non-Repeatability	≤ 0.02 % FSO
Zero Balance	± 1.0 % FSO
Creep (20 Minutes)	0.06 % of Load

## MECHANICAL

Material	17-4ph Stainless Steel
Finish	Natural
Safe overload	Compression 150 % FSO Side Load 100% FSO
Ultimate overload	Compression 300% FSO Side Load: 200% FSO
Deflection	See Dimensions Table
Weight	See Dimensions Table
Mounting Bolt Torque	<a href="#">Torque Table</a>

## ELECTRICAL

Input Impedance	460 ± 50 ohms
Output Impedance	350 ± 3.5 ohms
Insulation Resistance	>5000 Megohms
Excitation Voltage	10 V AC/DC (15 V maximum)
Cable Color Code	+ Excitation (green) - Excitation (black) + Signal (white) - Signal (red) + Sense (natural) - Sense (yellow) Shield (blue)
Cable Type	4/6-conductor, 22 AWG, Polyurethane jacket, Tinned Copper Braid, Diameter: 0.160"
Cable Length	See Dimensions Table
Cable Termination	Finished Conductors
Cable Seal	Compression Gland Fitting

## ENVIRONMENTAL

Temperature, Operating	-40 to +176 °F (-40 to +80°C)
Temperature, Compensated	14 to +104 °F (-10 to +40°C)
Temperature, Storage	-40 to +194 °F (-40 to +90°C)
Temperature Effects	Zero < 0.003% FSO/°F < 0.005% FSO/°C
Temperature Effects	Output < 0.003% of Rdg./°F < 0.005% Rdg./°C
Sealing	IP67; Multi-redundant; Limited Immersion Tolerance

# VE Typical System Configuration

## SENSING LOAD CELL(S)



## SIGNAL CONDITIONING

Analog Transmitters



Serial Transmitters



Digital Indication



Process Control



Batch Control



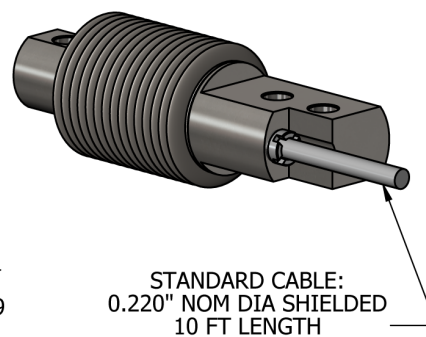
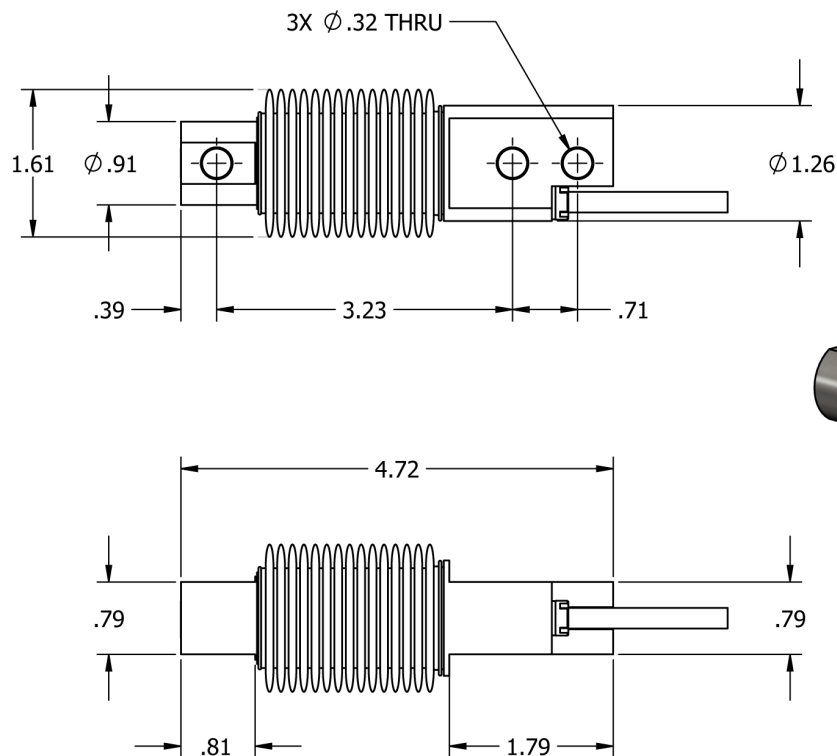
Data Acquisition



## 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

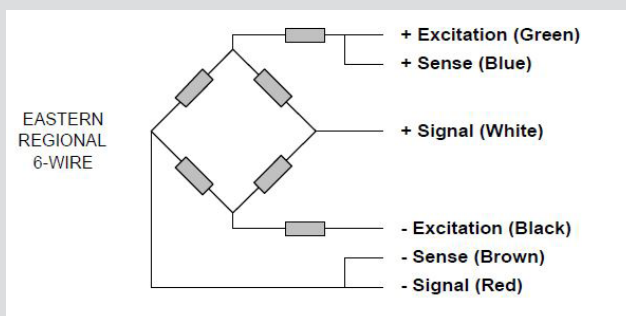
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Dimensions in Inches

Capacity (KG)	Deflect	Weight
5, 10, 20, 50, 100, 200, 250, 500	<0.016"	1.0 LBS
DIMENSIONS (INCHES)		

## VE Wiring Diagram



## Legal Disclaimer



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