



**SENTRAN**

## Welded Sealed Bending Beam Load Cell

# VE4-C Series

**The VE4-C Series is a compact, high performance, strain gage load cell constructed stainless steel. The VE4-C Series is designed to accurately measure tension and compression loads ranging from 0-5 KG to 0-500 KG.**



The VE4-C Series is a high performance cantilever beam load cell constructed of heat treated stainless steel. The VE4-C is designed to accurately measure tension and compression forces in capacities ranging from 0-5 KG to 0-500 KG. The VE4-C Series features a field proven dual-guided cantilever beam design that readily tolerates moments induced by angular, eccentric, or off-center loading, with minimal sensitivity to these extraneous loads, producing excellent performance in a small, compact package. The inherent low deflection of the VE4-C Series yields a high dynamic response and superior output resolution for a wide range of applications. The VE4-C Series load cell is Harsh Environment Sealed to IP68 incorporating a welded bellows seal to protect all internal components. The load cell output signals are calibrated to a close tolerance to facilitate in situ interchangeability and multiple load cell summing applications. The integral premium instrumentation grade cable features a durable PVC jacket over a tinned-copper braided shield for superior mechanical protection and to minimize the unwanted electrical effects of RFI and EMI. The attributes of the VE4-C Series make it convenient for weighing small bins and hoppers, making it an ideal choice for low force measurements, material handling, packaging, or bagging scale applications where a precision load cell solution is required.



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

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### APPLICATIONS

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

### FEATURES

- 5 KG to 500 KG Capacities
- 0.02% Accuracy Class
- 2 mV/V Full Scale Output
- 10 FT PVC Cable
- FM Approved, Intrinsically Safe
- Compact Size
- IP68 Environmental Sealing
- Stainless Steel Construction
- Dual Guided Beam Design
- Universal - Tension and Compression

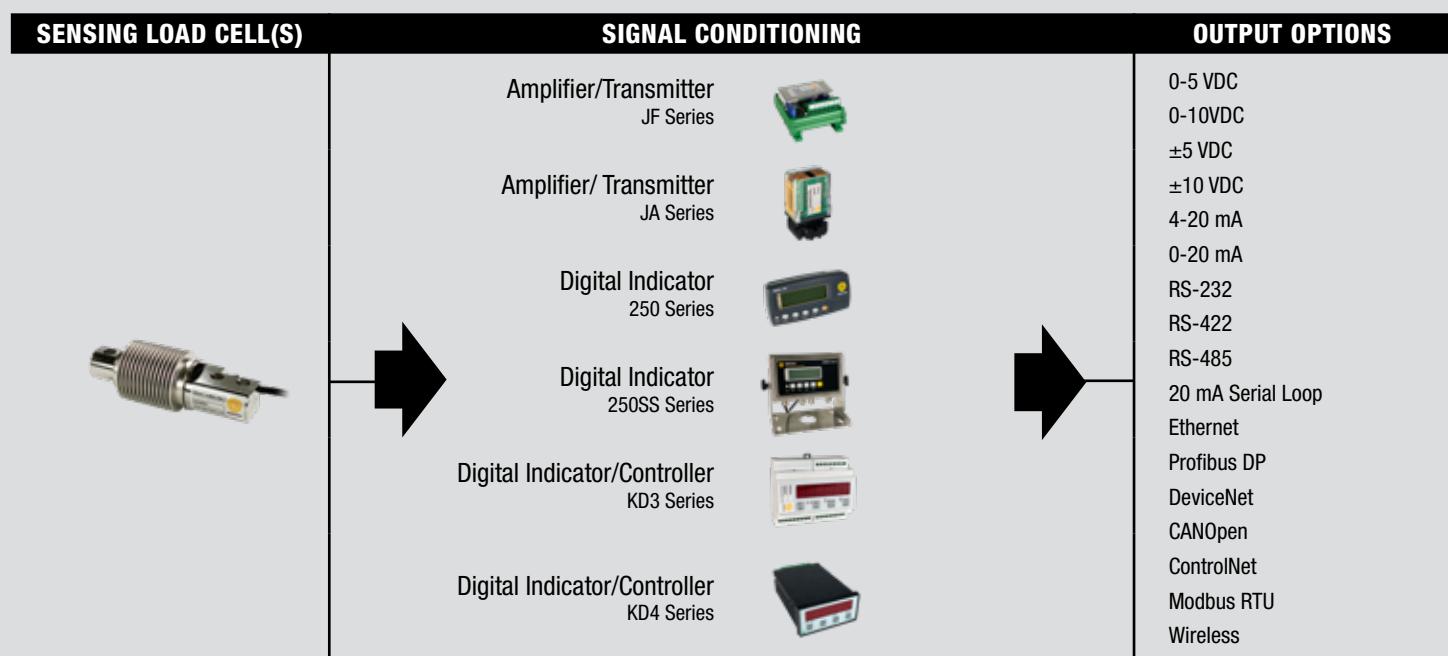
# VE4-C Series Specifications

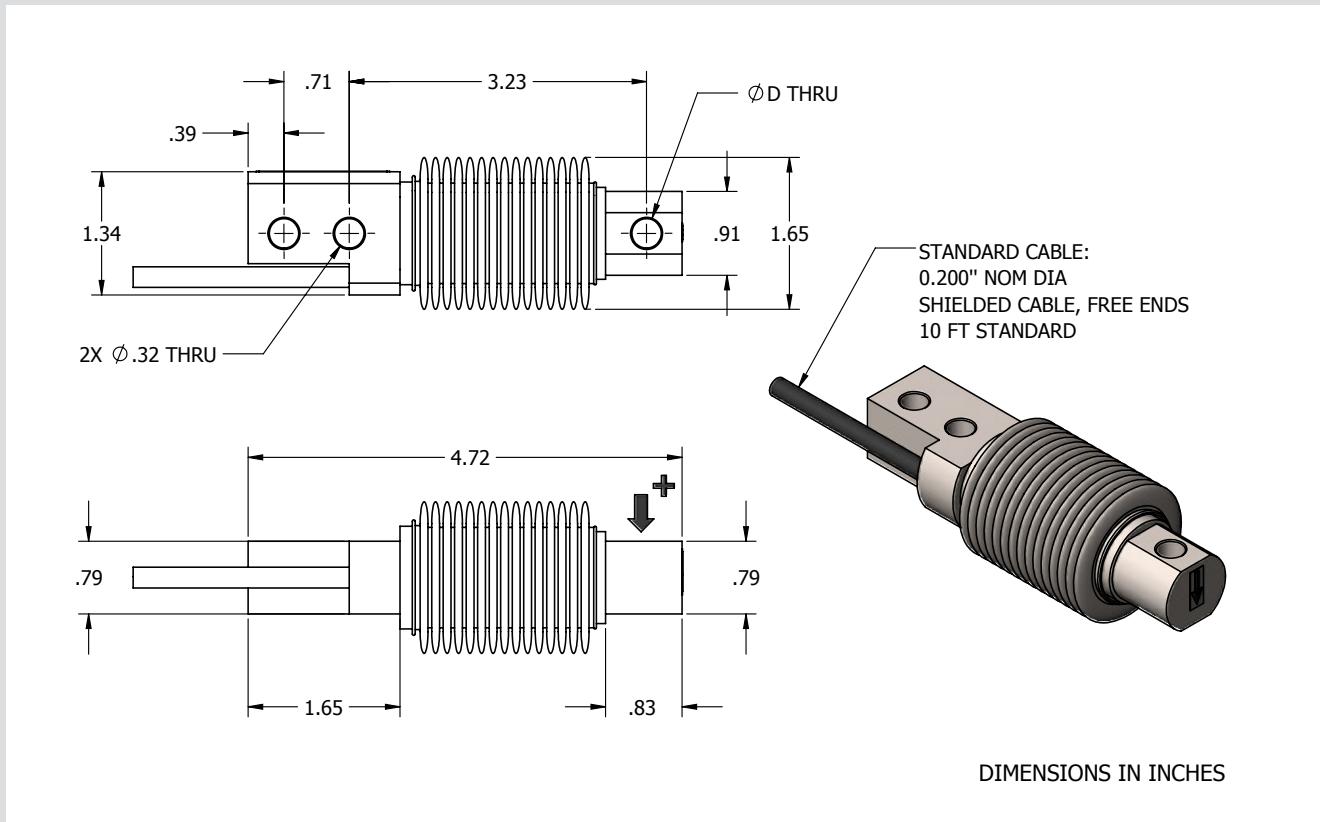
Innovative Measurement Solutions 

PERFORMANCE		ELECTRICAL	
Rated capacities (KG)	5, 10, 20, 30, 50, 100, 200, 350, 500	Input Impedance	400 $\pm$ 20 ohms
Rated Output (FSO)	2 mV/V	Output Impedance	350 $\pm$ 3 ohms
Output Tolerance	$\pm$ 0.25 % R.O.	Insulation Resistance	>2000 Megohms
Combined Error Band	$\leq$ 0.03 % FSO	Excitation Voltage	10 V AC/DC (15 V maximum)
Non-Linearity	$\leq$ 0.02 % FSO	Cable Color Code	+ Excitation (red) - Excitation (black) + Signal (green) - Signal (white) Shield (bare)
Hysteresis	$\leq$ 0.02 % FSO		
Non-Repeatability	$\leq$ 0.02 % FSO		
Zero Balance	$\pm$ 2.5 % FSO (5KG - 20KG) $\pm$ 1.0 % FSO (30KG - 500KG)		
Creep (30 Minutes)	$\leq$ 0.03 % of Load	Cable Type	4 conductor, 24 AWG, PVC, Tinned Copper Braid, Diameter: 0.200"
MECHANICAL		Cable Length	See Dimension Table
Material	17-4ph Stainless Steel	Cable Termination	Finished Conductors
Finish	Natural Bright	Cable Seal	Epoxy Gland Seal
Safe overload	Compression 150 % FSO Tension 150 % FSO Side Load 100% FSO	ENVIRONMENTAL	
Ultimate overload	Compression 300% FSO Tension 300% FSO Side Load: 200% FSO	Temperature, Operating	-20 to +160 °F (-30 to +70°C)
Deflection	See Dimension Table	Temperature, Compensated	14 to +122 °F (-10 to +50°C)
Weight	See Dimension Table	Temperature, Storage	-58 to +185 °F (-50 to +85°C)
Mounting Bolt Torque	See Dimension Table	Temperature Effects	Zero $<$ 0.0015% FSO/°F $<$ 0.0026% FSO/°C
Sealing	IP68; Continual Immersion Tolerance	Temperature Effects	Output $<$ 0.0008% of Rdg./°F $<$ 0.0014% Rdg./°C
		Sealing	IP68; Continual Immersion Tolerance
		FM Approval	Per Sentran: FM Certificate of Conformity: FM24US00012X and FM24CA0005X

FM approved versions carry a "-FM" suffix to the part number. Every Sentran unit of an FM APPROVED product will bear an FM compliant label indicating the application level (e.g., Class 1, Division 1, Groups) corresponding to the type of protection required.

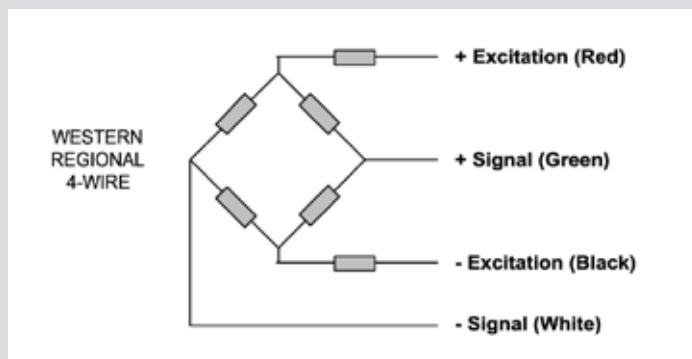
## VE4-C Typical System Configuration





Capacity (KG)	D	RECOMMENDED BOLT TORQUE	DEFLECT	WEIGHT
5, 10, 20, 30, 50, 100, 200	0.32	17 FT-LB	0.010"	1.5 LB
350, 500	0.41	17 FT-LB	0.013"	1.5 LB

## VE4-C Wiring Diagram



# Legal Disclaimer



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