



SENTRAN

Bending Beam Load Cell

VF6 Series

The VF6 Series is a universal high performance load cell constructed of transducer-quality aluminum alloy. The VF6 is designed to accurately measure tension and compression forces for applications ranging from 0-2.2 LB to 0-100 LB.



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APPLICATIONS

- Tension/Compression Measurements
- Ultra Low Force Measurements
- High Accuracy and Repeatability
- Medical and Life Science Weighing
- Moment/Off-Center Load Applications
- OEM and VAR Solutions

FEATURES

- 2.2 LB to 100 LB Capacities
- 0.02% Accuracy Class
- 2 mV/V Full Scale Output
- 5 FT Silicone Cable
- Miniature Compact Size
- IP67 Environmental Sealing
- Anodized Aluminum Construction
- Dual Guided Beam - Over Load Protected
- Universal - Tension and Compression

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

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VF6 Series Specifications

Innovative Measurement Solutions



PERFORMANCE

Rated capacities (LB)	2.2, 5, 10, 25, 50, 100
Rated Output (FSO)	2 mV/V
Output Tolerance	± 0.15 % R.O.
Combined Error Band	≤ 0.02 % FSO
Non-Linearity	≤ 0.02 % FSO
Hysteresis	≤ 0.02 % FSO
Non-Repeatability	≤ 0.02 % FSO
Zero Balance	≤ 3 % FSO
Creep (30 Minutes)	≤ 0.03 % of Load

MECHANICAL

Material	Aluminum
Finish	Anodized
Safe overload	Compression 250 LB Tension 250 LB
Ultimate overload	Compression 350 LB Tension 350 LB
Deflection	See Dimension Table
Weight	See Dimension Table
Mounting Bolt Torque	See Dimension Table

ELECTRICAL

Input Impedance	1048 ohms nom
Output Impedance	1000 ohms nom
Insulation Resistance	>1000 Megohms
Excitation Voltage	10 V AC/DC (15 V maximum)
Cable Color Code	+ Excitation (red) - Excitation (black) + Signal (green) - Signal (white) Shield (bare)
Cable Type	4 conductor, 29 AWG, Silicon Cable, Diameter: 0.100"
Cable Length	See Dimension Table
Cable Termination	Finished Conductors
Cable Seal	Epoxy Gland Seal

ENVIRONMENTAL

Temperature, Operating	-40 to +200 °F (-40 to +94°C)
Temperature, Compensated	14 to +104 °F (-10 to +40°C)
Temperature Effects	Zero < 0.005% FSO/°F < 0.009% FSO/°C
Temperature Effects	Output < 0.005% of Rdg./°F < 0.009% Rdg./°C
Sealing	IP67; Multi-redundant; Limited Immersion Tolerance

VF6 Typical System Configuration

SENSING LOAD CELL(S)

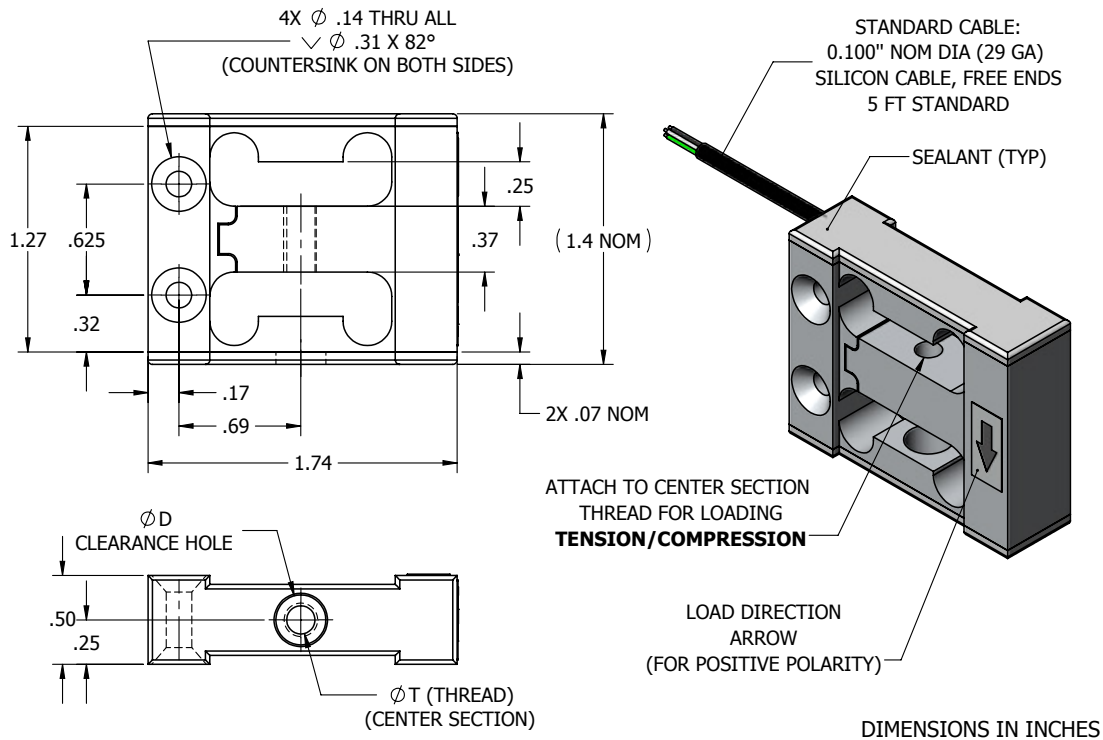


SIGNAL CONDITIONING

Amplifier/Transmitter JF Series	
Amplifier/ Transmitter JA Series	
Digital Indicator 250 Series	
Digital Indicator 250SS Series	
Digital Indicator/Controller KD3 Series	
Digital Indicator/Controller KD4 Series	

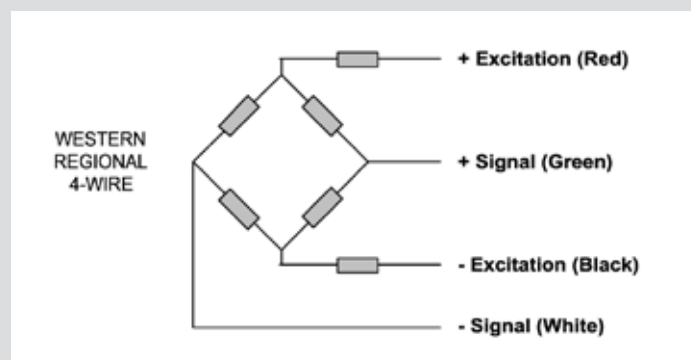
OUTPUT OPTIONS

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



Capacity (LB)	D	T(THREAD)	SCREW/BOLT SIZE	RECOMMENDED BOLT TORQUE	DEFLECT	WEIGHT
2.2, 5	0.28	10-32 UNF THRU	#6	15 IN-LB	0.005	0.1 LB
10, 25, 50, 100	0.28	10-32 UNF THRU	#6	15 IN-LB	0.004	0.1 LB

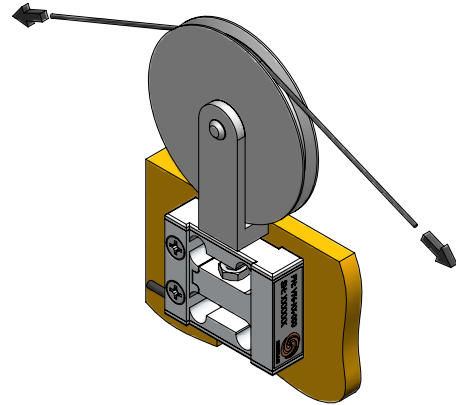
VF6 Wiring Diagram



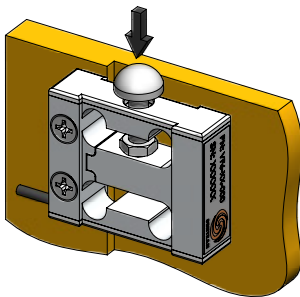
Medical Bag Weighing



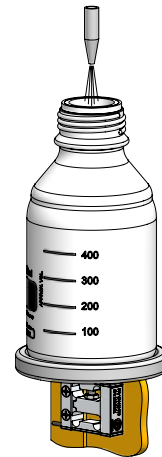
Wire Tension Measurements



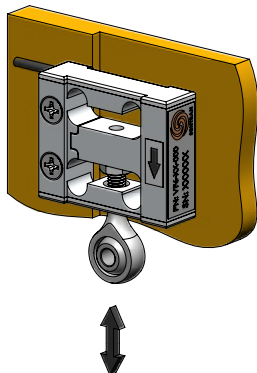
Compression Loading/Testing



Bottle Filing/Weighing



Tension/Compression Measurements



Legal Disclaimer



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