Load Sensors

Load Pins, Compression Cells, Tension Links & Instrumented Shackles

McCoy Global offers four key types of load sensors:

- **Load pins**: A load pin goes through and holds equipment together such as in a sheave nest and senses load or tension.
- **Compression cells**: A compression cell goes underneath something and senses load weight
- **Tension links**: A tension link goes in between two devices, rope is tightened or pulled, a tension link senses tension on a wire rope or a cable
- **Instrumented shackles**: An instrumented shackle sense tension on an anchor line, the shackle goes through the stationery piece and a load pin is connected to measure tension or load on the line

What we can measure:
Linear force
Sheer force
Tension
Compression
Torque
Bi-directional
Dual axis

What's unique about our load sensors?
Extreme load capacity – our load cells and pins measure a load up to 6,000,000 lbf (26.7 MN). All load cells and pins are traceable back to NIST up to 6,000,000 lbs with a 1% accuracy.
The operating temperature – all our load sensors have a high temperature option that is not offered by our competitors that ensure our load sensors meet the most extreme conditions, offering a temperature range from -40^{0}C to 200^{0}C. (our standard is ----40^{0}C to 85^{0}C).
Shock and vibration tested – all our load sensors are shock and vibration tested to ensure the electronics inside the sensor do not fail due to harsh shock loads or vibrations in the field.
Robust EMI/RFI protection – we test all of our load sensors to 200 volts per meter – so for example, if you are a shipyard, building destroyer ships, the electro-magnetic interference on a ship will not impact our load sensors used on that ship.
Machined from stainless steel – all McCoy Global load sensors are engineered for rugged, harsh and hazardous area applications using 17-4 PH stainless steel. We have never had a sensor break in the field.
Custom designed – McCoy Global load sensors are custom designed specifically to address your exact need.

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Features

Internal or external signal conditioners with digital or analog outputs
Customized firmware to communicate with an existing system
Data logging
Robust EMI/RFI protection
High shock and vibration resistance
Engineered to survive physical abuse and wide temperature ranges

Specifications

Capacity:	≤6,000,000 lbf [26.7 MN]
Static Error Band:	±1% Full Scale
Overload Rating:	250% (no calibration shift)
Outputs:	4-20mA, Digital (wired or wireless), direct to relay
Material:	17-4 PH Stainless Steel, Condition H1150 per AMS 5643
Temperature Range:	-40 to 170 °C [Standard: -40 to 77 °C]