

FORCE SENSORS

A complete offering of both standard and custom load monitoring solutions.

Force Sensors are transducers that convert an applied force into either an analog or digital electrical signal. This conversion is achieved by the physical deformation of resistive strain gauges bonded internally to the sensor.

Force Sensors most frequently integrate into crane and winch systems and are essential components in applications that require precise measurements of heavy loads.

FEATURES & BENEFITS



Load Pins:

- Designed to replace stock pins in a sheave, shackle, spelter, or clevis.

Donut Style :

- Used where height may be limited and central loading cannot be guaranteed. Ideal for crane load blocks and column applications.

Compression Cells:

- Used to determine center of gravity or under winches for line tension measurement. Pillar or pancake style available.

Tension Links:

- Standard capacities from 5-500 tons. Higher capacities and custom designs available.

- ▶ **Custom Load Pin quote request available at:** www.rugged-controls/load-pin-quote-form.com
- ▶ **Cabled and wireless versions available** to meet both stationary and mobile needs.
- ▶ **Manufactured from 17-4 stainless steel** for superior durability. Material and calibration certificates available for quality traceability.
- ▶ **Sensors are rated to withstand a 150% proof load and 300%-500% catastrophic load** for superior safety and reliability. Higher load ratings available for custom order.
- ▶ **Subsea options available** to full ocean depth.
- ▶ **A variety of outputs offered** (mv/v, mA, 0-5/10VDC, RS-485) allowing for flexibility of integration depending on end user requirements.
- ▶ **Sensors are optionally provided with a redundant bridge output** to minimize service replacement time.
- ▶ **Integral glanded cable exit** to meet any customer preference. Exit can be radial or axial. Optional cabled units are provided with bulkhead connectors and mating cable assembly

SPECIFICATIONS

Linearity	<±0.1% of full scale.
Non-Repeatability	±0.1% of full scale.
Zero Balance	±0.1% of full scale.
Operating Temperature	-25° C (low threshold) to 70° C (high threshold). Expanded ranges available.
Hazardous Rating	NEC, ATEX, and IECEx ratings available. Contact Rugged Controls for more information.