Monad Electronics

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Introduction

Winner of National Award for year 2009-2010 in R&D

Monad Electronics is An ISO 9001:2015 certified company, which has been involved for over 20 year in the business of designing, manufacturing and export of Electronic Industrial products, Testing equipments , sensors and related indicating and controlling devices and allied products related to Data logging & Acquisition.

Monad is specialized in providing high end and high accuracy customized Force Transducers, Multi-Axial Force Transducers and Torque Sensors. Monad is an expert in providing import substitutes of high end Load Cells, Safe Load Indicators, etc

We are supplying to leading industries and government institutions and are also exporting our products to USA, Germany, Belgium, Turkey, Australia, U.A.E., Singapore, Spain, Brazil, New Zealand, Philippines, UK, Croatia and to the African countries.

Web Tension Load cells

Monad electronics combines precision strain gauge force transducers with dead shaft mounting options to produce the highest accuracy for direct on line sensing of tension in moving paper, films, foils, wires and cables. Monad transducers, developed for web tension applications, incorporate a differential bending beam design with a full Wheatstone Bridge strain gage configuration.

This design provides stable, accurate, and repeatable measurement over a wide range of operating tensions while virtually eliminating temperature drift.

All capacities are equipped with mechanical overload protection.

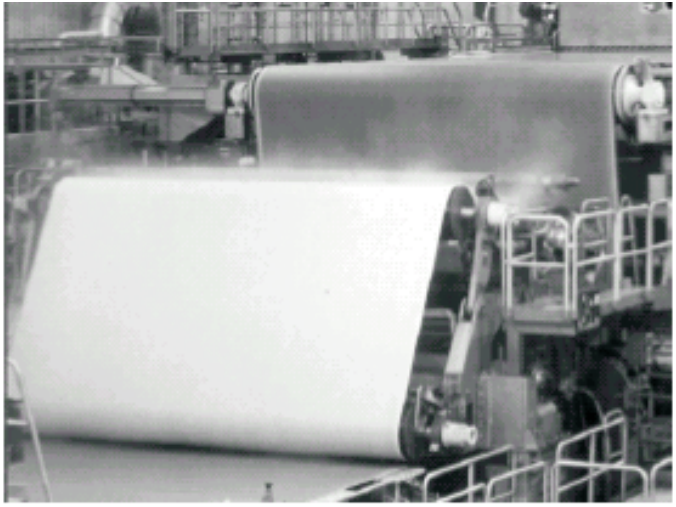
Available with a mounting configuration for dead shaft applications (with horizontal or vertical support surfaces),

Web Tension Load cells

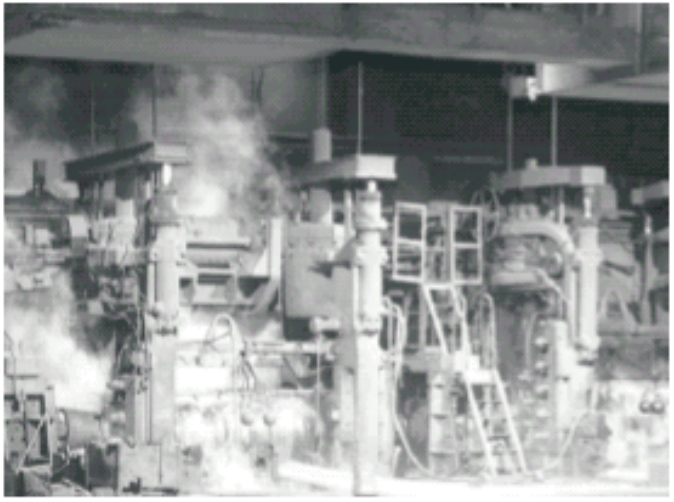
Web Tension Transducers measure web tension forces applied across a roll, using integral horizontal and/or vertical axis sensors. This innovative and exclusive approach to web tension force measurement enables accurate determination of the true resultant force, as well as the applied angle. Not only does this permit installation and measurement at any mounting angle or roll orientation, it also combines to form an expert diagnostics system that produces the highest level of web tension measurement confidence available today. The Load cell is machined from a high strength corrosion resistant stainless steel to yield a low profile single piece construction that incorporates tubular sensing sections at each end. . The cylindrical sensing sections are sealed to meet IP67 requirements. Environmental sealing ensures long-term reliability for humid, wet, or wash down locations.

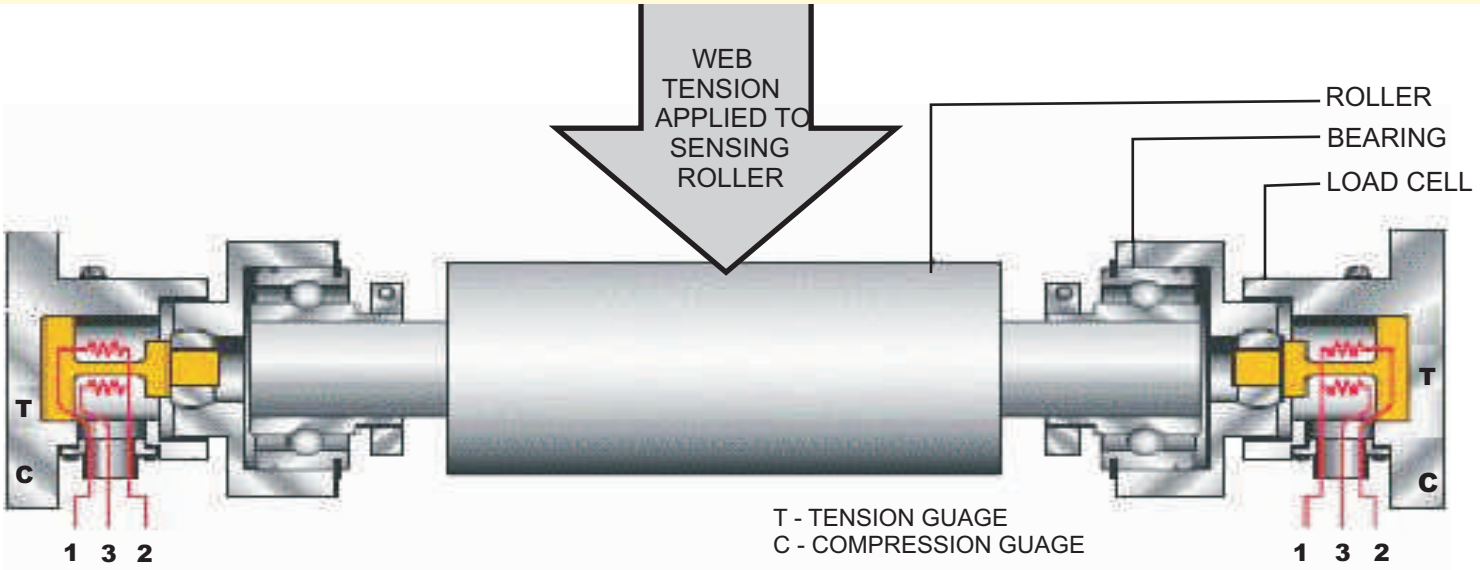
APPLICATIONS

Paper and Roofing Machines



Strip Mill Force Measurement




WEB
TENSION
APPLIED TO
SENSING
ROLLER
ROLLER
BEARING
LOAD CELL
T
C
1 3 2
T - TENSION GUAGE
C - COMPRESSION GUAGE
T
C
1 3 2

SW Load cells

Monad's SW Series load cells is **Proprietary Uni Body Design** which measure low resultant tension forces with small wrap angles.
Designed for use in applications such as winders, un-winders, re-winders, Coaters, Laminators, and printing presses, they eliminate drift and frequent re-calibration problems often encountered with conventional half-bridge semiconductor-type load cells.

Full Wheatstone-bridge, temperature-compensated strain gage construction enables precise accuracy with genuine "non-drift" signal stability. SW load cells are of a rugged compact size with high overload capacity. Outline dimensions are identical to existing equipment, thereby making possible simple, drop-in replacement.

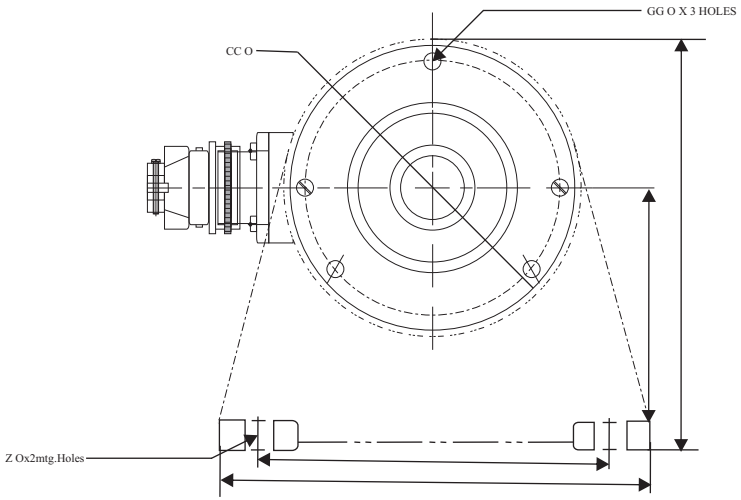
SW Load cells

SW Load cells

FEATURES

Proprietary Uni Body Design
Compact Design
Alloy steel/SS construction
Sensitive to high & low tension
360° beam overload stop protection
Wide load range from 5Kg to 500Kgs
High output, excellent Linearity, low Hysteresis
Supplied with industry standard bearings
Unique design compensates for shaft expansion, misalignment & bending
High Over Load limit 1000 %

SW Load cells



MEL-05 LOAD CELL

Monad's MEL-05 web tension Load cell is among the flange mounted range of load cells which are designed to be mounted directly onto the ends of the tension measuring rolls.

This model is designed for tension control with laminates, and easy to use due to the combination of its compact size & able to indicate with high precision which allows its use in confined spaces with very high level of quality and reliability.

FEATURES :

Wide range
High overload limit
Suitable for both live and dead shaft rollers.
Built-in low friction, self-aligning bearings.
Suitable for both live and dead roller applications.
Space effective.
High accuracy and repeatability
Ideal for low to High tension applications
On-line sensing through Digital Indicator

MEL-05 LOAD CELL

MWL-07 LOAD CELL

Monad's MWL-05 web tension Load cell measure the resultant force in any direction and are not limited to horizontal or vertical force. In addition, they do not require unique orientation to achieve maximum sensitivity, This permits the installation of identical load cells at multiple web tension zones regardless of the pillow block mounting or angle configuration of the roller.

The low profile load cell is sealed to meet Ip67 requirements, temperature compensated to 121°C, and dead weight calibrated to precision accuracy. These features add up to zero maintenance simple retrofit, and long term reliability for machines that continuously process material in the paper industry.

APPLICATIONS:-

# Winders	# Re winders	# Coaters
# Breakers	# Wire Sections	# Calenders
# Laminators	# Dryers	# Felts

MWL-05 LOAD CELL

MWL-05 LOAD CELL

FEATURES :

Capacities from 2K to 20K Kg

Dual axis transducer design enables measurement of resultant force in all directions without limitation to Horizontal or vertical components

Functional up to 121°C

Sealed to IP67 - field proven design

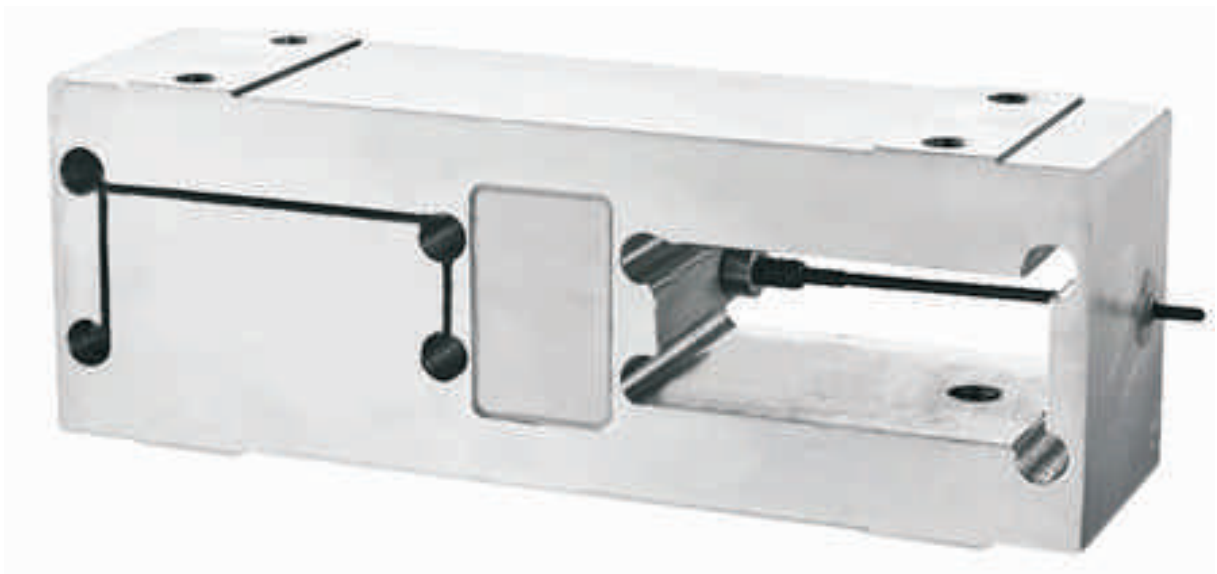
Low profile - direct load cell replacement with simple retrofit

MPB TYPE LOAD CELLS

The Horizontal Pillow Block Series load cells for the web processing industries have the same dimensions as conventional load cells and mount in the same way. But they measure only the horizontal force component of the web tension. Unlike load cells that measure along the vertical axis, they are not forced to sense the roll weight along with the web tension. So these load cells can be sized to the tension level alone, and function at the high end of their measuring range, where load cells perform best. The result: always optimal tension measurement performance – even when rolls are heavy and tension light.

* Quality load cells that eliminates drift and re-calibration
* Wide operating range
* Easy to apply

MPB TYPE LOAD CELLS



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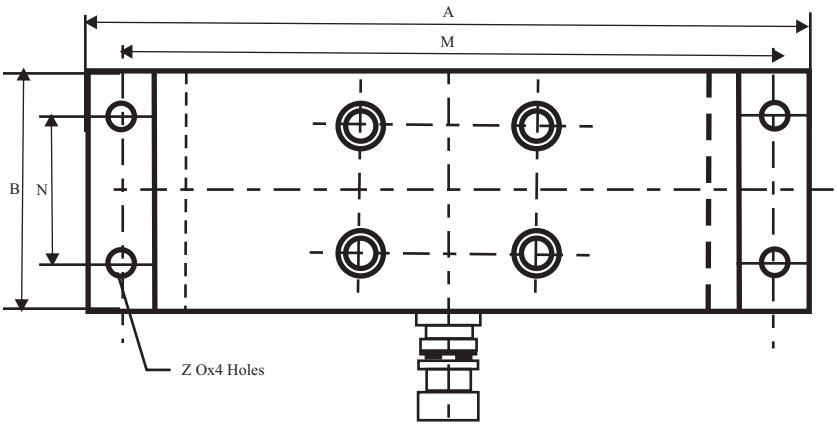

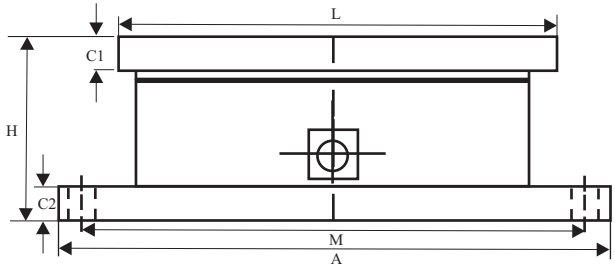

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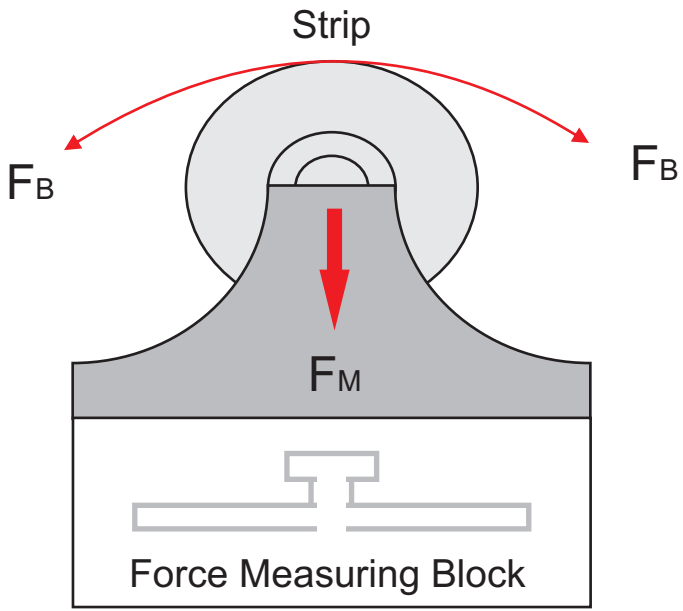
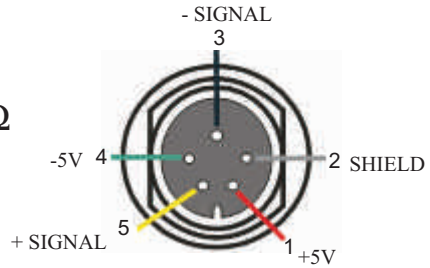


ELECTRICAL SPECIFICATIONS

The specifications are common to all types of load cell.

Bridge Resistance	350 Ω (nominal) ± 2 Ω
Standard Output ±10%	20 mV
Sensitivity	2.1 +/- 1mV/V
Measurement Limit	Rated load
Operating Temperature	0 °C - 50°C
Bridge Excitation - Max	10V DC
Combined Accuracy (Hysterisis , Linearity , Repeatability)	Better than ± 0.5% of rated output
Maximum Safe Over Load	150/1000 % of rated load



PIN DETAILS

MWL-07 LOAD CELL

Monad's MWL-07 web tension Load cell is among the Direct mounted range of load cells which are designed to be mounted directly. Wire / Thread passes through pulley mounted on bearing , which rests on load cell shaft .Monad's MWL-07 load cell is a low capacity High accuracy load cell used in wire drawing, carbon fibre, glass fibre and cotton fibre tension control applications.

These load cells are available in capacity from 100 Gms. To 20 Kg.

MWL-07 LOAD CELL

MWL-07 LOAD CELL

SPECIFICATIONS:-

Bridge Resistance	350 Ω (nominal) ± 2 Ω
Standard Output ±10%	20 mV
Sensitivity	2.1+/- 1 mV/V
Measurement Limit	Rated load
Ambient	0° - 50 °C
Bridge Excitation - Max	10V DC
Combined Accuracy (Hysterisis , Linearity , Repeatability)	Better than ± 0.1% of rated output
Maximum Safe Over Load	150 % of rated load