

WIRE ROPE LOAD CELL



Description

The Rope Tension Load Cell is mainly for used in Hoist and Crane weighing systems or in general where the tension in a steel wire needs to be measured. The load cells are clamped directly on the fixed end of a lifting wire rope and fitted with strain gauges allowing them to produce a signal proportional to the measured load.

The Rope Tension Load Cell has a unique advantage that it is suitable for most commonly used rope sizes and can be clamped directly on to the wire rope, hence eliminating the requirement for any mechanical changes in the machine.

Operation

When force is applied to the Load Pin along it's sensitive axis, the effect on the strain gauge results in an output signal proportional to the force applied.

The diagram at the right shows the typical diagram how force is to be applied on the Rope Tension Load Cell.

The load cell is then to be connected to an ADC based display system for calibration of the appropriate load for weighing / overload functionality.

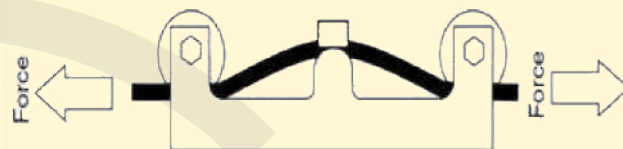
Specifications

Rated Load	2T/5T/10T/20T
Wire Rope Diameter	8mm-32mm
Rated output	2 mV/V \pm 0.02%
Input Resistance	350 \pm 10 Ω
Output Resistance	350 \pm 2 Ω
Insulation Resistance	\geq 5000M Ω
Hysteresis	\leq 0.03%FS
Repeatability	\leq 0.02%FS
Creep	< 0.03%FS/30min
Zero Balance	\leq 1%FS
Safe Overload	150%FS
Recommended Supply voltage	5 ~ 12V
Use temp Range	-10~+60° C
Zero Temp Coefficient	< 0.04%FS/10° C
Rated output Temp Coefficient	< 0.04%FS/10° C
Cable Flexible	4 core 5 meter

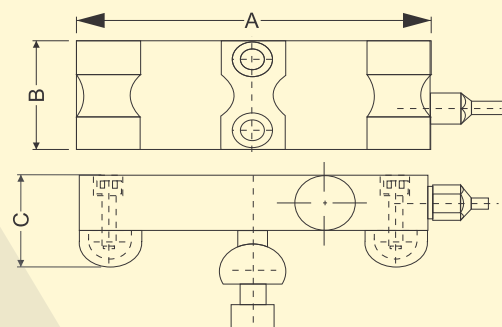
Rope Tension Load Cell



Load Cell Installation

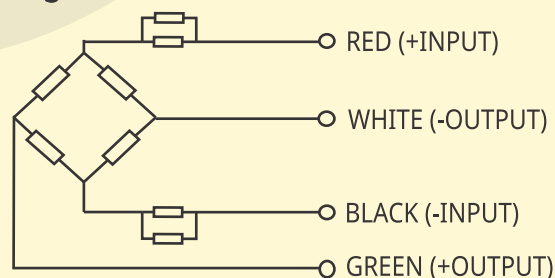


Dimensions :



Rated Load	A	B	C
2T	140	48	43
5T	140	48	43
10T	160	60	50
20T	180	70	50

Wiring :



NOTE : For load cell cable extension, use 4 core shielded cable 0.25sq. mm only.