

## FSG tension load cells



### Description

**FSG tension load cells** are constructed with a stainless steel body and a foil strain gage attached. It is designed to measure the tensile load of wires and cables, but can measure both tensile and compressive loads. There are three measurement ranges: 5ton, 10ton and 20ton. Tension load and compression load can be measured respectively.

Adopting stainless steel material, it is not affected by corrosion. Both ends are threaded so that tensile load can be applied to the load cell in the field. It can be used by assembling a bracket or ring to the provided dedicated nut.

Our company uses a servo-controlled universal material testing machine (UTM), a certified tensile load tester, to individually calibrate and ship tension load cell, ensuring reliability.

### Applications

FSG tension load cell can measure tensile load by installing it on a structure or system that generates tensile force.

- Measurement of tensile force acting on bridge cables or on wires supported on structures
- Measuring of bearing capacity of structures
- Measuring of tensile and compressive loads acting on construction machinery and mechanical equipment

### Ancillary equipments

- Universal terminal box (model 7012/7024)

### Ordering information

- Keeping readout unit
- Application field
- Cable length

### Specification

Model	4211	4212	4213
Sensor element	FSG (foil strain gage) sensor		
Range	5ton-f	10ton-f	20ton-f
Rating output	2mV/V(2000×10 <sup>-6</sup> )		
Accuracy	±0.5% FSR		
Resistance	700Ω(8 strain gages)		
Insulation resistance	Less than 100 MΩ / 500 V		
Exciting voltage recommended	Less than 5 VDC		
Exciting voltage allowable	Less than 10 VDC		
Operating temperature	-30~80°C		
Waterproof	10m H <sub>2</sub> O		
Dimensions	Ø36×92mm	Ø46×140mm	Ø46×189mm
Screw specification	M20×P2.5	M30×P2.5	M42×P2.5
Weight	0.3kg	0.86kg	2.18kg
Materials	Stainless steel		
Signal cable	Ø6.4mm, 0.37mm <sup>2</sup> ×4C shielded PU sheath cable		
Accessories	① Nut 4 EA ② Tension adaptor 2EA of model		

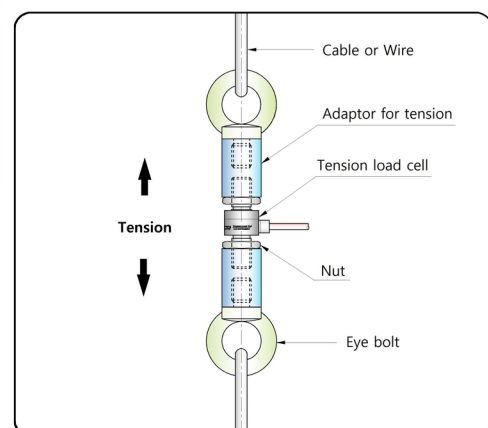
### Features

- Stability and reliability in extreme environment
- Possible to dynamic measurement
- Permanent system, choice of rustproof material

### The readout

It is electric resistance sensor that generates mV and can be used by connecting with strain meter or data logger that can read strain

- ACE-600A (FSG readout)
- ADL-200A (Smart logger)



[Example of using FSG tension load cell]