

LX Series Tension Sensor
Instruction Manual

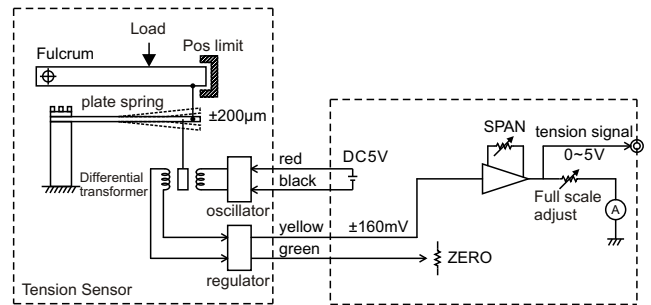
1 Introduction

The LX series tension sensor is used to detect the web tension in tension control systems.

The LX series tension sensor is compatible with Mitsubishi LX tension sensor.

2 Principle

The load added on the sensor cause micro-displacement on the plate-spring(±200µm), the tension sensors use "Linear Voltage Differential Transformer" technology to convert tension into proportional electrical signal. As the figure shows below.



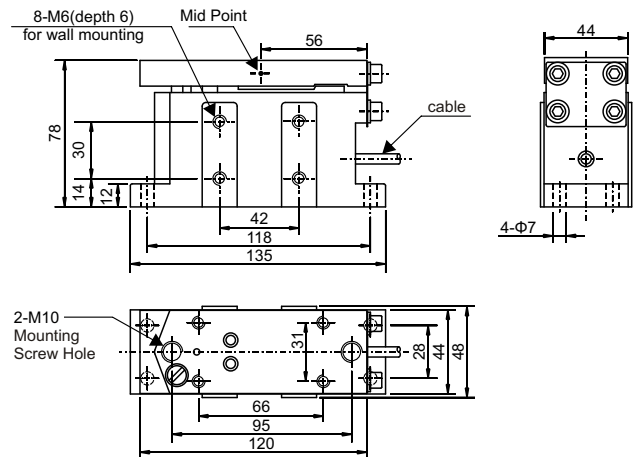
3 Order Code

| Model | Rated Load | Power supply | Output | Suffix |
|-------|-------------------------|--------------|----------------------|--------|
| LX | 150N, 300N, 500N, 1000N | 5VDC | 0~200mV | None |
| | | 24VDC | 0~10V, 0~5V(for PLC) | X |

e.g.

LX-1000: The tension sensor's rated load is 1000N, supplied by 5V DC.

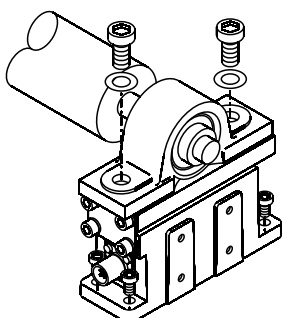
4 Dimensions(unit: mm)



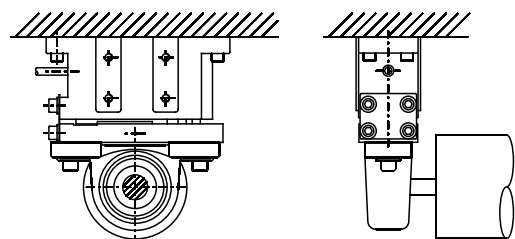
5 Mounting

Note: The bearing center and the tension sensor Mid Point(see dimension drawing) must be on the same line.

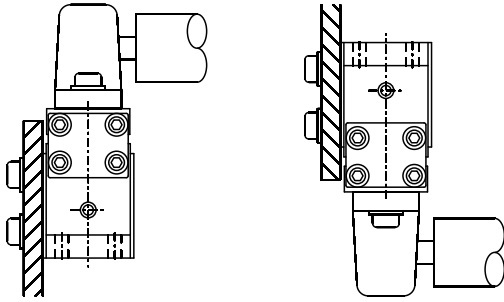
5.1 Mounting on Floor(standard)



5.2 Mounting on Ceiling

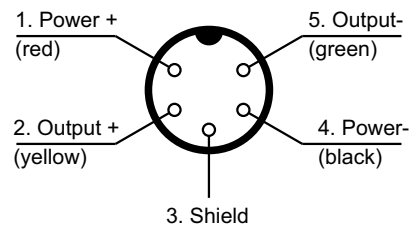


5.3 Mounting on Wall



Note: Screw length < 6mm

6 Wiring



7 Specifications

| | |
|----------------|---------------------------------|
| Rated Load | 150N, 300N, 500N, 1000N |
| Load Direction | Stress or stretch |
| Mounting | on Floor, Ceiling and Wall |
| Cable | shield cable(length: 3~6m) |
| Power Supply | DC 5V/20mA or DC 24V/20mA(LX-X) |
| Environmental | Ambient Temp.: 0~40 °C |
| Dimensions | 134x48x78(mm) |
| Net Weight | 1.8 kg |