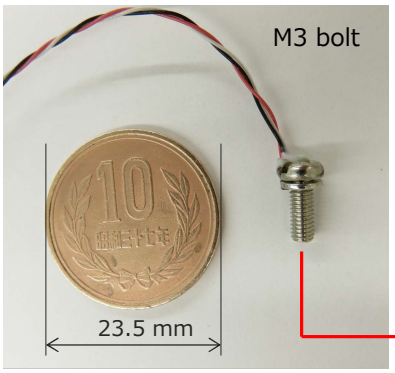
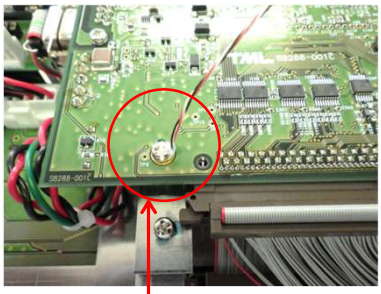
Axial force measurement for board fastening screws

Applied axial force to a screw is normally calculated with torque, but **by directly measuring the axial force using an axial force screw (bolt), it is easy to measure and check for looseness, overtightening, and whether the specified fastening force is achieved.**
Manufactured for diameter **M3 and larger**.

■Size of M3 bolt (actual size)

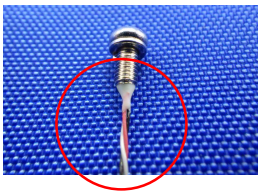
M3 bolt size compared to a 10-yen coin





■Lead wire out wiring example

Taking out from screw end



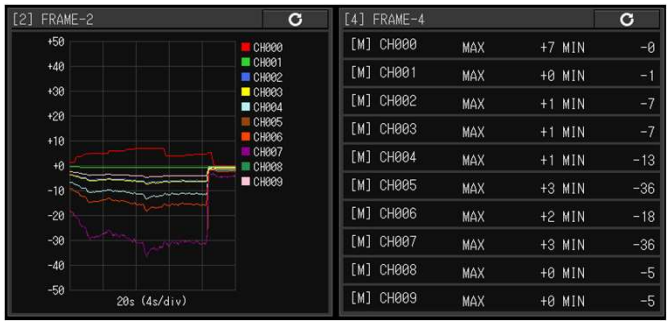
Taking out sideways from head

■Axial force bolt specification

Construction method	Embedding			Surface bonding		
Sensor	Embedded strain gauge			Strain Gauges		
Operational temperature	-30～+100℃	-10～+80℃	-40～+150℃	-296～+80℃	-40～+80℃	-40～+300℃
Processing	Machined bore diameter Φ0.8	Machined bore diameter Φ1.6, Φ2.0	Machined bore diameter Φ1.6, Φ2.0	Surface processing		
Compatible bolts	M3	M6 or more		M3 or more		
Others		Available with temperature integrated		Axial force measurement, bending measurement, torque measurement		

Graphically checking the looseness of fasteners

NEW **Data Logger T-ZACCS 9 TS-960**



Monitored value
*Image is for illustration purposes.

Measuring the strain/stress on the board and leading to a solution of problem

Point

- ☑ **Real-time display for axial force bolts while processing the temperature compensation of the data**
- ☑ **Built-in computation functions for max/min values**
- ☑ **Gage with integrated temperature measuring function measures both strain and temperature by simply connecting to a single channel**
- ☑ **Bar graph display for ease of visual understanding**
- ☑ **Graph display screen data is saved in SD card (screen capture)**

Tokyo Measuring Instruments Lab.
URL https://www.tml.jp/e