

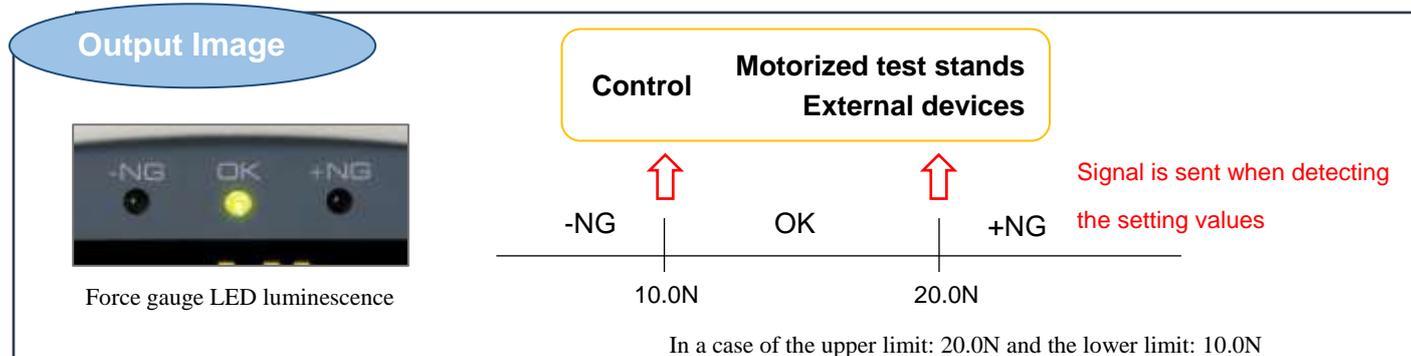
# Force Gauge ZT series Application Examples

Digital force gauge ZTS/ZTA series is equipped with various functions to realize more efficient and more advanced measurements.

## ZTS/ZTA series mutual functions

### Function1.Comparator Output

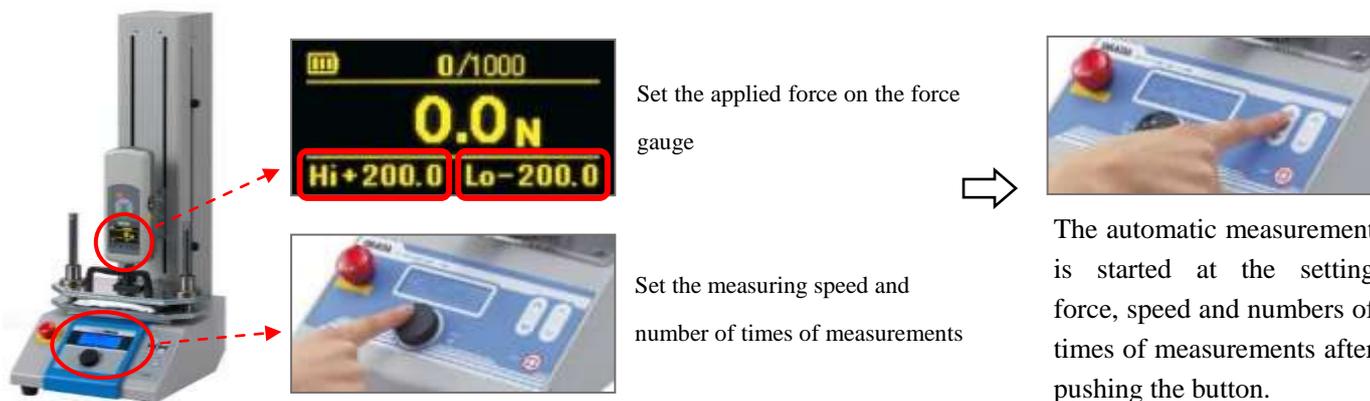
ZT series is able to set an upper limit value and a lower limit value. The information in the setting range or not is output depending on the set values.



©Application Example 1: Advanced automatic operations for Compression test /Durability test and so on.©

The force control mode is activated when the force gauge connect the test stand like MX2 series with a cable. Especially, it is effective for durability test due to the program setting such as pushing (pulling) at specific force and backing movement. It improves measuring work efficiency as well.

**Setting measuring speed and measuring times and applying specific force are available**



©Application Example 2: Warning alarms for the applied force beyond the setting force©

Connecting ZT series with a buzzer or a warning lamp is possible to detect a force abnormality when the applied force is over the upper limit. It is useful function for early abnormality detection.

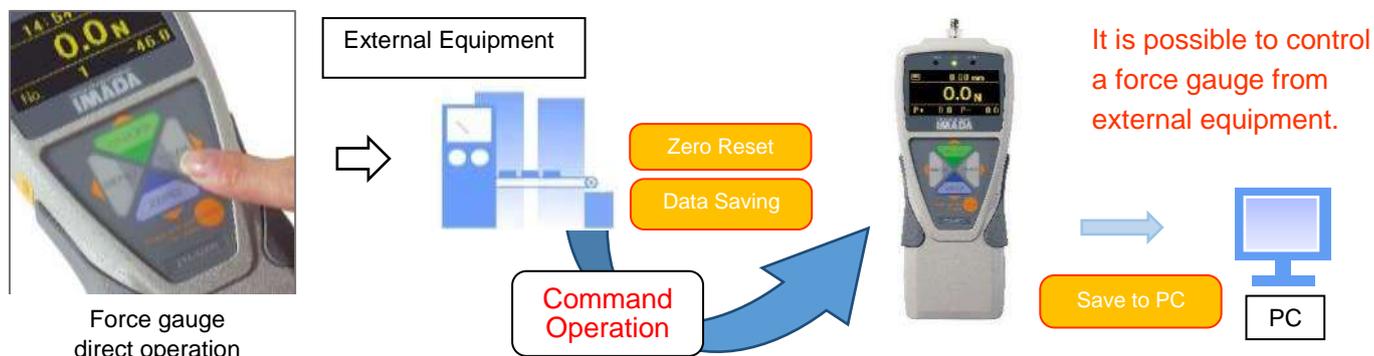


### Function 2. External Contact Point Function

ZT series is equipped with the external contact point input function.

This function activates the Zero Reset function for force values or the Send function which saves data when the external devices input the contact point.

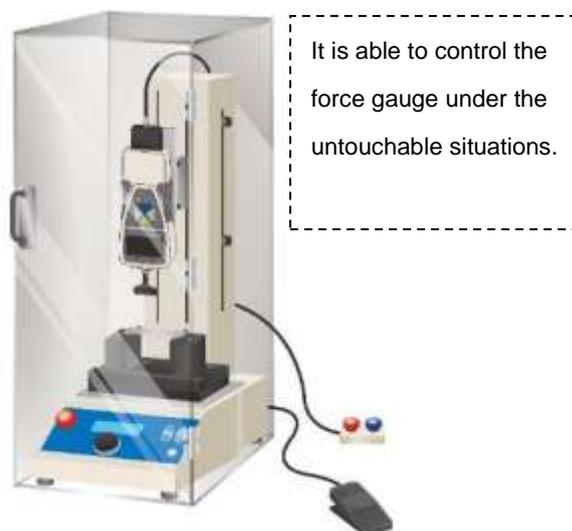
In other words, ZT series can be controlled from external devices not only from the equipped buttons.



### ◎Application Example 2: Remote Control of Force Gauges ◎

Prepare a remote switch for the force gauge. The switch are able to control Power ON/OFF, the Peak function ON/OFF, the Zero Reset function and the Data Sending function.

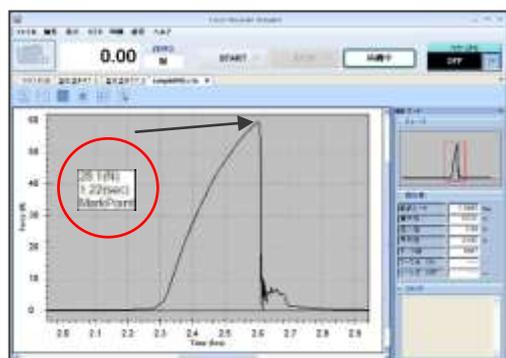
It makes measurements easy under involving sample scattering possibilities situations measurements or narrow space situations.



### Function3. Mark Point Input Function

ZT series is equipped with Mark Point Function.

For example, the moment that the switch turns on or off can be seen on the graphing software. Besides, the disconnect moment is also displayed as a graph when the both end of a conductive sample such as wire connect with a special cable.



Display the disconnecting moment on the graph



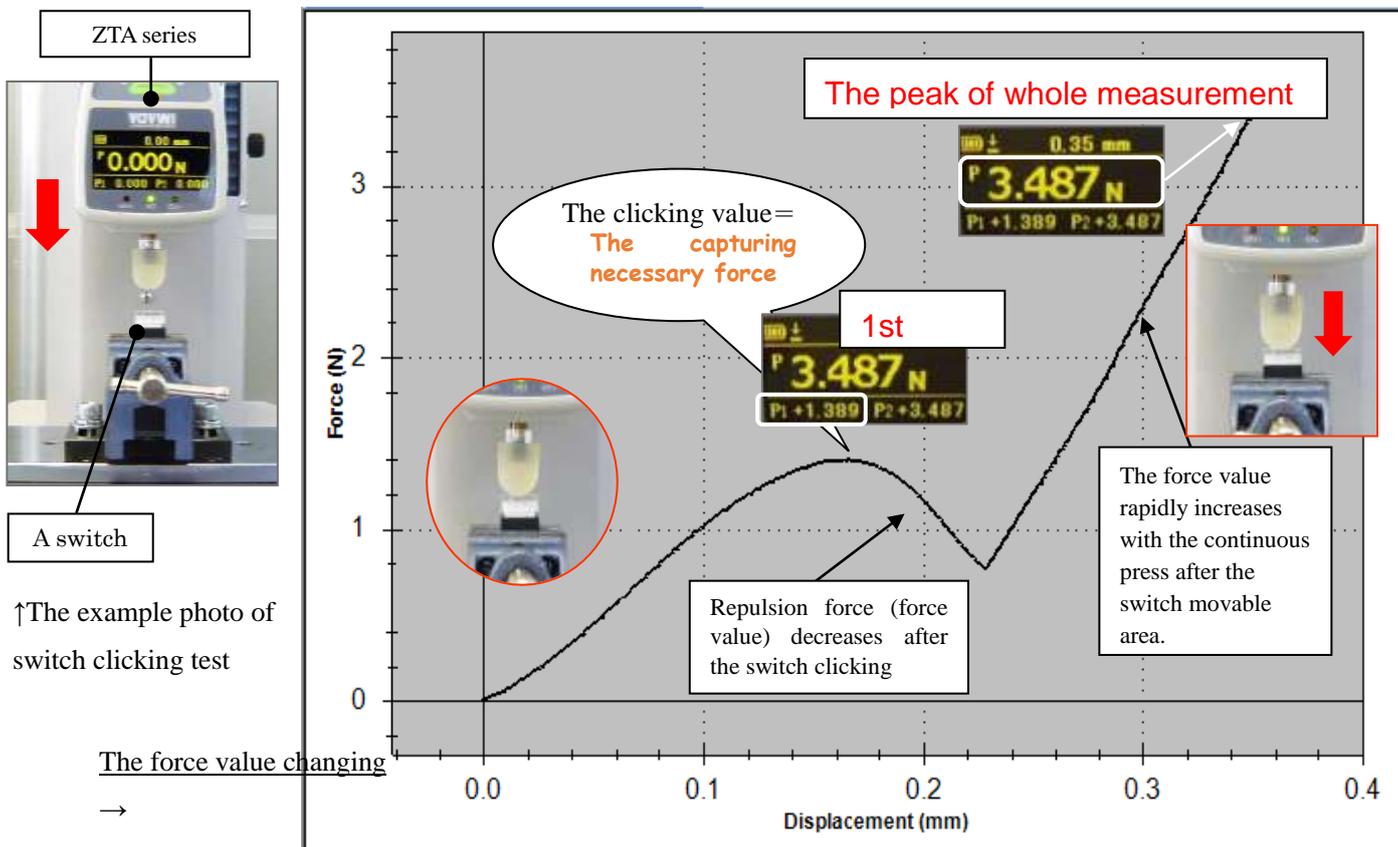
ZTA series limited function

Function 4. Capture 2 peak values at one measurement

ZTA series is equipped with 2 peak values saving function.

The function efficiently activates for the value rapid change even though the movement is small as a switch clicking. It makes speedy measurements and improves the measuring work efficiency.

A General Switch Clicking Test



Function 5. Automatic Displacement Reset Function

ZTA series is equipped with the automatic displacement reset function. It resets displacement when the force reaches the setting force.

When not using ZTA series



A manual displacement reset is required at the touching sample position.  
⇒ Start position adjustments are necessary.

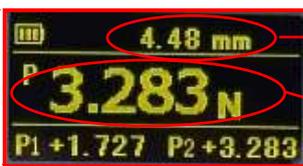
When using ZTA series



The measurement is started at the setting force applied moment.  
⇒ Position adjustments are unnecessary. **It improves measurement work efficiency.**

### Function 6. Capture Force/Displacement Peak Values

ZTA series can save the peak force value and the displacement at the same time.

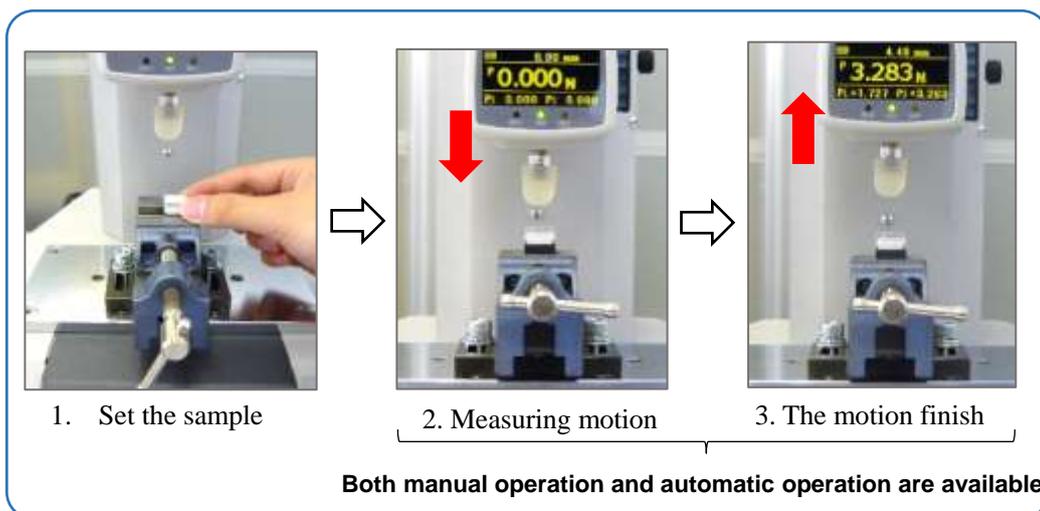


The displacement at the captured peak force value.

The peak force value

Peak force value and displacement value are on a display of a force gauge.

Using function 5 & 6 together realizes easier checking of force-displacement relationships



#### Measurement Results



The peak force value and the displacement at the same time.

Force-displacement measurements are realized with easy measurement operation and checking result

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