

## eZ-Connect Series: Sensor Interchangeable Amplifier eZT

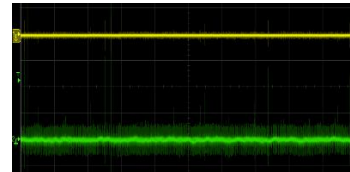
- Available for various measurements by replacing different loadcells without accuracy adjustment.
- Fast sampling for both Peak Values and Continuous Data, achieving high reproducibility
- Clear OLED display with a variety of significant capabilities
- Measurement benefit increased by external output and practical functions
- Allows easy Data acquisition and management with the included software

### [Evolution to the Next Series]

Next Series is a generic term for IMADA measurement devices with upgraded functions and performances with the essential modifications.  
New Series: eZT Firmware Ver.5 or later.

### New Features

- Increased measurement stability achieved from further noise reduction to the measurement circuit.



Analog output comparison Yellow: Next series/Green: Old Model

- Force gauge program (firmware) online updates available.
- Various software and additional functions downloadable to increase the measurement conveniences.



IMADA-Connected

(<https://www.imada-connected.com/>)



eZT

### What eZ Connect Series is

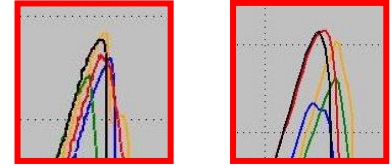


eZ Connect is a generic term for an amplifier and load cells attachable to it without additional adjustment.  
The various eZ-Connect load cells are compatible with eZT.  
Also, users can reduce the risk to stop a working line by preparing another sensor as a spare.

**[Features]**

**Fast sampling for both Peak Values and Continuous Data, achieving high reproducibility**

High-speed sampling of up to 2000 times/second updates measured values for more accurate peak-value readings.  
By using the optional software sold separately (refer to P.6), graphed as continuous Data with the sampling data of up to 2000 times/second, and even frictional Load changes visualized and evaluated.

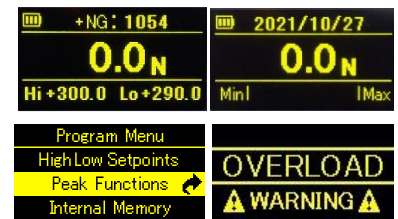


Destructive test comparison of the same sample by sampling speed: -  
-Left Sampling speed 2000Hz  
-Right Sampling speed 100Hz  
The less variation shown in the left results

\*The Test Results vary depending on the sample and measurement conditions.

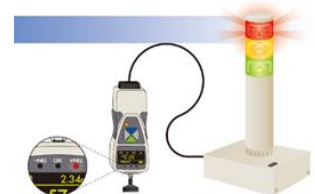
**Clear OLED display with a variety of significant capabilities**

The OLED provides excellent contrast and high visibility, which reduces errors in reading measurement results.  
In addition, the display screen can be divided into three sections, allowing to customize the display contents for liking, such as calendar, bar graph and Comparator setting values on the top and bottom.  
In addition, it has various display capabilities such as a multi-language setting menu and overload warning display.



**Measurement benefit increased by external output and practical functions**

By providing a wide range of data output options such as USB, wireless, serial communication, and analog output, it can be used in a wide range of situations from data management on a PC to interlocking with various devices.  
The system used to control external devices, such as stopping the machine at a specified load value, or to create an inspection device linked to a work process in order to improve the efficiency of the inspection process.







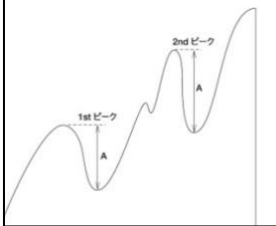

The warning light and other devices may be used to detect measurement abnormalities.

**Allows easy data acquisition and management with the included software**

USB Cable and software *Force Logger* included in the original package to proceed with the data management when purchased.  
With the software, displayed values and internal memory data stored in a force gauge and continuous data acquired (10 data per second).  
It also allows to change and save the Force-Gauge settings from facilitating the management of measurement conditions. (Please refer to P.5 for the system requirements).



**[Scalability of eZT]**

(1) Equipped with Displacement Output Function		(2) USB flash-drive for Continuous Data Storage	
	<p>eZT enables you to display displacement value on the top by connecting linear scale. Also, outputting the force-displacement data is available by using included or optional software. *Please refer to P.4 for available linear scale.</p>		<p>To USB flash-drive (*sold separately) Continuous data selected: -1 data/sec, 50 data/sec, 100 data/sec -Single data (with the button press) Data saved in CSV format.  *USB flash-drive is sold separately</p>
(3) Display with Special ZTA Features			
Value Display Maximum / Minimum	Average Load Value	Peak Value Detection 1 <sup>st</sup> and 2 <sup>nd</sup> Values	
 <p>Displays the Max. and Min Load Values from the memory stored in the main unit.</p>	 <p>Calculate the average value of the memory stored in the unit</p>		 <p>When the value drops by more than the arbitrarily set value (A), or more, up to two previous maximum values are detected.</p>
<p>The display convenient for grasping the tendency of measurement results when measuring peak values.</p>		<p>Used to measure samples with click feelings: - Clicking tip of the Mechanical pencil and pens and the Camera Shutter Button.</p>	

## [Specifications of eZT]

Model	eZT
Accuracy	+/-0.2%F.S. (*1)
Unit of measurement	Depends on load cell and settings (N, kN, kgf, lbf N-m, N-cm, kgf-m, kgf-cm, lbf-in, ozf-in)
Display	4-digit
Display update	16 / sec
Sampling rate	2000 data / sec at maximum (*2)
Battery	Approx. 6.5 hours (2 hours charge) (*3)
Operating environment	Temperature: 0 to +40 degree Celsius, Humidity: 20 to 80%RH
Functions	Customized display (header and footer), Peak hold (tension and compression), Internal 1000 points data memory, Comparator (judgment of OK or NG), Reversible display, Sign inversion, Zero clear timer, +NG alarm, Off timer (auto power off), Dumping, Time display, 1st/2nd peak, Displacement detection at force peak value, Displacement zero reset at selected force, setting lock
Output	USB, RS232C, +/- 2VDC analog output (D/A), Comparator 3 steps (-NG/OK/+NG), Overload alarm, Sub comparator 2 steps (output of large or small judgment), USB flash drive, Displacement.
Overload warning	Approx.110%F.S. (Warning message and alarm)
External connecting switch	Power ON / OFF / Send and Hold / Zero reset / Peak and Real-time switching
Available liner scales (*4)	- Online driver output (a line receiver according to RS422/485 must be built in.) - Open collector output (Voltage drop between contacts must be smaller than 0.5V.)
Weight	Approx. 490g
Dimensions	Please refer to dimensions.
Accessory	AC adapter, CD driver (including data logging software) (*5), USB cable, Carrying case, Adaptor for USB flash drive (*6)

\*1 The accuracy of load cell is added when using connected with a load cell.

\*2 Up to 100 data/sec. is saved in USB memory (selectable among 1, 50, and 100 /sec)

\*3 The battery is more consumed when connected to USB flash drive or a linear scale.

\*4 Some linear scales may not be available even if they meet the mentioned specifications.

\*5 Please refer to [Included Accessory] below for the details.

\*6 USB flash drive is not included.

## [Cautions]

### 1. Accuracy

Overall accuracy is calculated as the total of the accuracy of amplifier (+/- 0.2%F.S.) and load cell (see each specification sheet)

E.g.) For eDPU-50N



Amplifier  
(+/-0.2% F.S.)

+



eDPU  
(+/-0.2% F.S.)

= Overall accuracy +/-0.4% F.S.

\* For measurement requiring higher accuracy, there are 'Separate Sensor Model ZT series' and 'Desktop Force Amplifier FA Plus', which are calibrated individually to each load cell. Please refer to the specification sheet of Separate Sensor Model ZT series.

### 2. Accuracy Warranty

Please calibrate before using eZ-Connect series.

The amplifier is not calibrated with any load cell.

Please request calibration for each combination and calibration report if required (available at a charge).

**[Included Accessories]**

- Force Logger: Data Acquisition Graphing Software

	<p><b>Main Functions</b></p> <ul style="list-style-type: none"> <li>-Easy Importing of the Measurement Data</li> <li>-Display Acquired Data Value Statistics: -Maximum / Minimum / Average Values.</li> <li>-Data saved in CSV format</li> <li>-Continuous Data acquisition up to 10 times per second.</li> <li>-Force-Gauge Function Settings.</li> </ul> <p><b>Operating environment</b></p> <ul style="list-style-type: none"> <li>- OS: 8.1/10/11</li> <li>- Hardware: CPU 1GHz or more recommended Memory 2GB or more recommended Hard disk 10GB (Data storage area) or more</li> <li>- Platform: .NET Framework 4.8 or later</li> </ul>
--	---

**[eZ-Connect series Load Cells]**

Model	eDPU series	eSW series	eSCX series	eLU series	eLMU series
Image					
Feature	Standard - Wide Use	Waterproof	Extra small	Small Size - Wide Use	Small Size
Force	Tension/Compression	Tension/Compression	Tension/Compression	Tension/Compression	Tension/Compression
Capacity	2N to 20kN	100N to 20kN	100N to 2000N	50N to 2000N	50N to 500N
Accuracy	+/- 0.2%F.S.	+/- 0.5%F.S.	+/- 1%F.S.	+/- 1%F.S.	+/- 1%F.S.
Cable Length	Up to 500N:2m 1000N to 20kN:3m	Up to 5000N: 0.5 to 2m(Curl cord) 10kN and 20kN:5m	3m	3m	2m

Model	ePN-50N	eLM series	eLC series	eCFX series	eCLFX series
Image					
Feature	Pen type	Thin & Round	Round & Precise	Flat & Extra small	Flat & Thin
Force	Tension/Compression	Compression	Compression	Compression	Compression
Capacity	50N	10N to 20kN	500N to 20kN	20N to 200N	50N to 500N
Accuracy	+/- 2%F.S.	Up to 10kN: +/- 2.0% F.S. 20kN: +/-3.5% F.S.	+/- 0.5%F.S.	+/- 1%F.S.	+/- 2%F.S.
Cable Length	2m	Up to 2000N: 2m 5000N to 20kN: 3m	5m	3m	3m

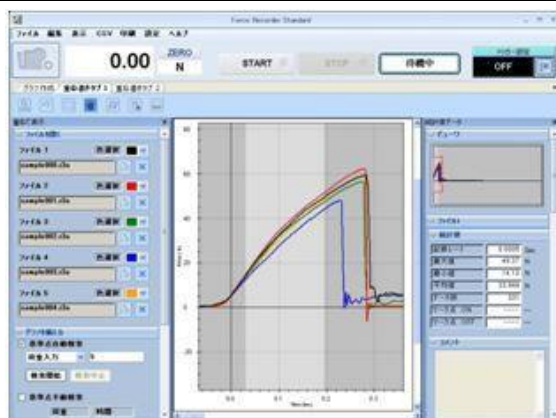
Model	eCHX series	eDD2 series	eZD series	eSK series	eZU series
Image					
Feature	Washer	High Accuracy & Waterproof	Small Size - High capacity	High accuracy	Attached Rod ends
Force	Compression	Compression	Tension or Compression	Tension or Compression	Tension
Capacity	100N to 2000N	5000N to 20kN	1000N to 20kN	2000N to 20kN	10kN to 20kN
Accuracy	Up to 500N: +/-2%F.S. 2000N: +/-1%F.S.	+/- 0.5%F.S.	+/- 0.5%F.S.	+/- 0.25%F.S.	+/- 1% F.S.
Cable Length	3m	5m	3m	5m	5m

Model	eZW1-10kN	eDM-2000N	ePK2-1500N	eHT series	eTFX series
Image					
Feature	Crane scale type	For door	For car foot brakes	Torque Load Cell	Torque Load Cell
Force	Tension	Specialized	Specialized	For torque	For torque
Capacity	10kN	2000N	1500N	0.5Nm to 10N-m	5N-m to 10N-m
Accuracy	+/- 1% F.S.	+/- 2% F.S.	+/- 1% F.S.	+/- 0.5% F.S.	+/- 1%F.S.
Cable Length	0.5 to 2m	2m	1.5m	0.5 to 1m (Curl cord)	2m

\* Please refer to each specification sheet for details.

### [Related Products]

#### Graphing and Data Acquisition Software: Force Recorder



The Standard Version Image

- High-speed USB communication (up to 2000 times/second or 1000 times/second for Plus version) enables graphing for minimal load changes.
- Up to 5 graphs overlaid for comparison with the Standard and Professional versions. (10 graphs with Plus version)
- Notes added for record keeping of the measurements
- For Data managing and reporting, Graphs pasted as the Image Data.

\*4 Software versions available for different requirements.  
(Force Recorder Light / Standard / Professional and Plus)

Please refer to the individual Manuals for details.

#### Wireless Data Transmit System: WL01 Series



WL01-USB and WL01-ADP

- Wireless communication allows the Data received from remote locations.
- The Data reception detection and interference prevention functions support stable communication.
- The communication format opened to the public and incorporated into the available facilities possible.

**Note**

- Compatible with firmware Ver3.10 or later.
- Restrictions on the countries and regions for use.
- Please refer to [Wireless System] Specifications for details.

#### Linear Scale DMK series



Using with a ZTA series to do force-displacement measurement

#### Rechargeable Battery: BP-308






Rechargeable Battery for replacement

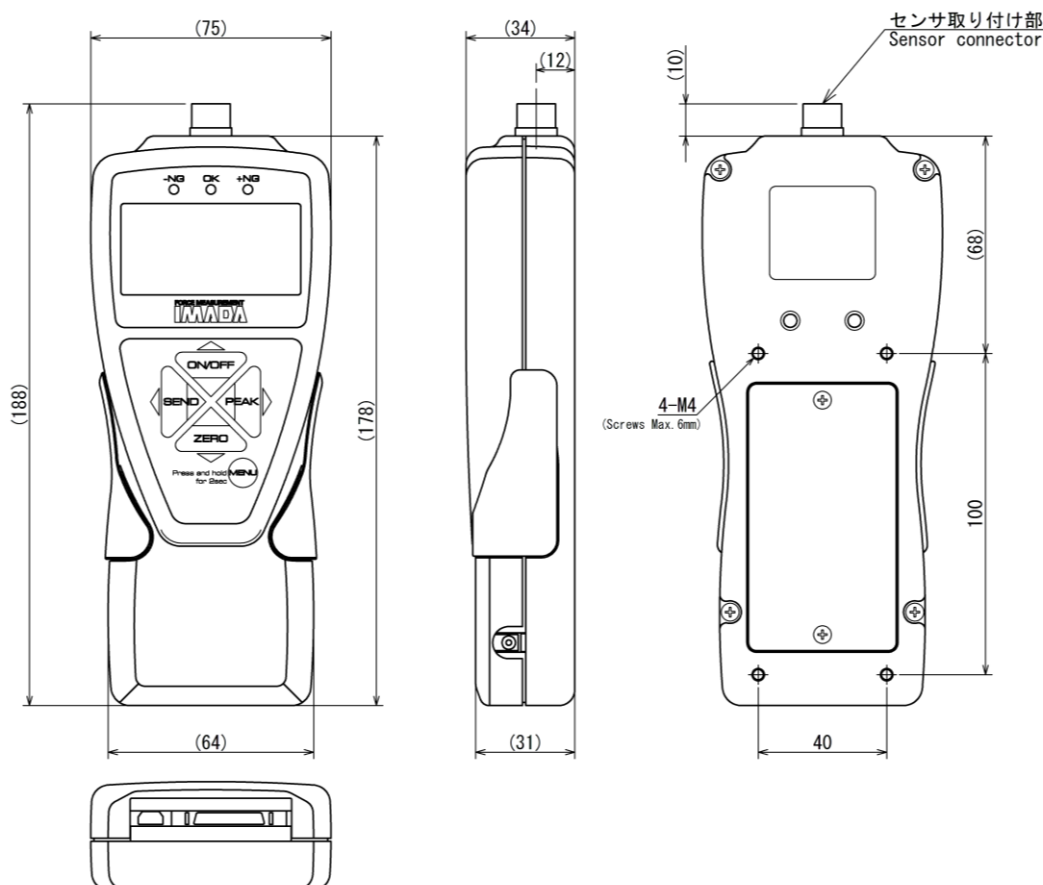
**[Related Cable]**

Model	Explanation	Purpose of use
CB-108	Analog cable	To connect to a multi meter, oscilloscope.
CB-208	RS232C cable	To connect to a PC having its own system
CB-508	Test stand option cable (For MX)	To connect to a test stand to enable force control or overload prevention functions.
CB-528	Test stand option cable (For MX2, EMX)	To connect to a test stand to enable force control or overload prevention functions.
CB-718	Test stand connection cable for displacement measurement (For MX2-FA, EMX-FA)	To connect to a test stand having length meter to enable force-displacement measurement.
CB-908	Open end connection cable	Output cable for loose wire 37 pin (Useful for connection with unique equipment.)

**[Related Force Gauges]**

Digital force gauge ZTS/ZTA series	Sensor-separate force gauge ZTS/ZTA Series	Desktop Force Amplifier FA Plus2 series
		
Functional yet user-friendly model force gauge.	External sensor type for use in the restricted environment (narrow space etc.) or installing into the specific facilities.	Ideal for integration into facilities due to the box-shaped design.

## [Dimensions]



Unit: mm

\*Please refer to load cell's specification sheet for each dimension.

## [Cautions]

- Information in this document is subject to change without prior notice.
- This product is designed for force measurement purpose only.
- Do not copy and use this content without authorization.
- Do not apply force more than its capacity or from incorrect direction to the measuring shaft.
- Note that the allowable values may vary slightly depending on the unit selected on display. Please contact us for more information and details.

### IMADA CO., LTD

99 Jinnoshinden-cho aza Kanowari Toyohashi

Japan 441-8077

Tel: +81-(0)532-33-3288

Fax: +81-(0)532-33-3866

E-mail: [info@forcegauge.net](mailto:info@forcegauge.net)

Website: <https://www.forcegauge.net/en/>



Visit our website for more information on wide product specifications, measurement applications and videos.