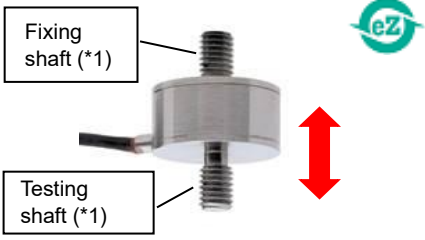
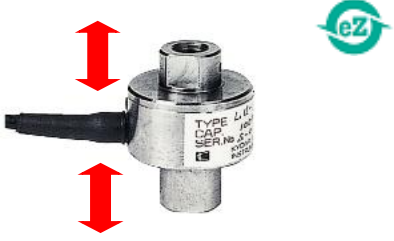


Load cell LMU/LU series

- Ideal for a narrow space due to their small size and light weight
- Designed to integrate into facilities and mount a sample easily with screws on both ends of the sensor

Model	Extra small type: LMU series	Small type: LU series
Capacity	50N to 500N	100N to 2000N
Force direction	Convertible type for Compression and Tension	Convertible type for Compression and tension
Screws	Male screw (M5)	Female screw (M8)
Images		

* An indicator is required to read force values. Refer page 3 for the details.

*1 The testing shaft is the male screw nearby the cable. The load cell should be set to be loaded.

*2 Choose the direction before purchase.

What is IP?

IP (International Protection) is a standard which is based on IEC Standard 529 for solid foreign materials, electric devices for water and cabinet.

IPxx

└─ The second code
(IP 0 to 8 for water penetration)

└─ The first code
(IP 0 to 8 for human body and sold foreign materials)

IP67

└─ Ingress of water in harmful quantity shall not be possible when the enclosure is immersed in water under defined conditions of pressure and time (up to 1m of submersion for 30 minutes.)

└─ No ingress of dust, complete protection against contact.

: eZ-Connect series

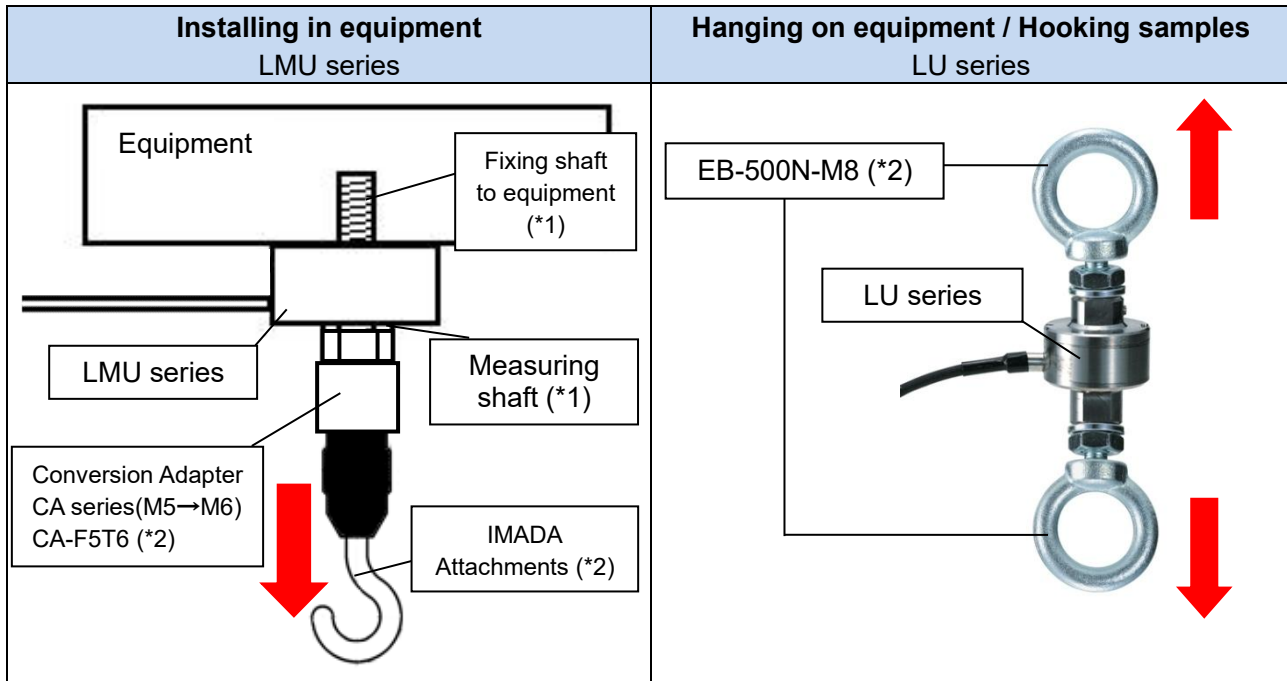
eZ-Connect is composed of an amplifier and load cells.

-Allows easy replacement of load cells without additional adjustment

-Suits different types of tests such as tension and torque, measuring from low load to high load etc.

Available load cells have a mark 

[Usage]



*1 Fixing shaft and testing shaft look similar. Ensure the side is correct. Keep the space between the surface of the sensor and attachment or equipment using your own M5 nut.


*2 Conversion adapter, attachments and EB-500N-M8 are sold separately.

Specifications		
Model	LMU series	LU series
Capacity	50N to 500N	100N to 2000N
Rated output	+/-1mV / V+/-10%	+/-0.9 to 1.4mV / V
Nonlinearity	0.5%R.O.	0.5%R.O.
Hysteresis	0.5%R.O.	0.5%R.O.
Recommended voltage (allowable applied voltage)	1 to 3V AC or DC (5V AC or DC)	2 to 5V AC or DC (7V AC or DC)
Safe overload rating	120%	150%
Working environment (allowable temperature)	0 to 50 degree Celsius (-10 to 60 degree Celsius)	0 to 70 degree Celsius (-10 to 70 degree Celsius)
Temperature influence for 0 point	0.005%/ degree Celsius	0.05%/ degree Celsius
Temperature influence for output	0.01%/ degree Celsius	0.05%/ degree Celsius
Cable	Approx. 2m (with a connector)	Approx. 3m (with a connector)
Dimensions	Refer to [Dimension]	Refer to [Dimension]
Weight	Approx. 60g	Approx. 150g
International Protections	-	-

* An amplifier (indicator) is required to read values. Refer page 3 "Available amplifiers (indicators)" for the detail.

* For purchasing only loadcell, select the types of connector. Refer to the table on page 3.

*1 IP67 is only approved for the load cell itself. The amplifier (indicator) and the connector parts are not secured.







Specifications (eZ-Connect series) 		
Model	eLMU series	eLU series
Capacity	50N to 500N	100N to 2000N
Accuracy (*1)	+/-1.0%F. S or less	+/-1.0%F.S. or less
Safe overload rating	120%	150%
Working environment (allowable temperature)	0 to 50 degree Celsius (-10 to 60 degree Celsius)	0 to 70 degree Celsius (-10 to 70 degree Celsius)
Cable (*2)	Approx.2m (with a connector)	Approx.3m (with a connector)
Dimensions	Refer to [Dimensions]	Refer to [Dimensions]
Weight	Approx. 60g	Approx. 150g
International Protections	-	-

* Refer page 4 for eZ-Connect series details.

*1 IP67 is only approved for the load cell itself. The amplifier (indicator) and the connector parts are not secured.

*2 Refer to specification of [Options Available for Load cell Cable] to change cable length or so.

[Available Amplifiers (Indicators)]



Separated Sensor Model		
Handheld type ZTS series	Handheld type ZTA series	Desktop type FA Plus2
		
- Handheld use - Higher accuracy	- Handheld use - Higher accuracy - I/O displacement - Data saving to USB	- Desktop use - Higher accuracy
eZ-Connect series Sensor Interchangeable Amplifier		
Desktop type eFA Plus2	Handheld type eZT	Quad Sensor Measuring Amplifier QSMA-400
		
- Desktop use - Load cell interchangeable (such as measurement of tension and torque, or low and high load)	- Handheld use - Load cell interchangeable (such as measurement of tension and torque, or low and high load)	- Up to 4 different load cells can be connected Simultaneously. (Load cell interchangeable) - To use QSMA-400, the graphing Software Quad Graph Drawer is required to be downloaded.

* Refer to the specification sheet of each amplifier (indicator) for details.

[Models of Load Cell Only]

	Model	Capacity	Thread
LMU series	LMU-50N	50N	M5
	LMU-100N	100N	
	LMU-200N	200N	
	LMU-500N	500N	
LU series	LU-100N	100N	M8
	LU-200N	200N	
	LU-500N	500N	
	LU-1000N	1000N	
	LU-2000N	2000N	

[Connector Type]

Code	-5P	-6P	-OC
Connector shape	 5pins	 6pins	Without Connector
Connect to	ZT series, FA Plus2, etc.	Some discontinued IMADA products	For installing in equipment
*Please check the connector shape of your equipment to connect.			

* When purchasing, select the connector shape and add the code to the end of the load cell mode.
e.g. For selecting 5pins: LMU-50N-5P

[Models of sensors combined with indicators (Sensor separate models)]

•LMU series

Model			Capacity	Accuracy (*1)	Display	Resolution
ZTA	ZTS	FA Plus2				
ZTA-LMU-50N	ZTS-LMU-50N	FAP2-LMU-50N	50N	+/-1.0%F.S. or less	50.0N	0.01N
ZTA-LMU-100N	ZTS-LMU-100N	FAP2-LMU-100N	100N		100.0N	0.1N
ZTA-LMU-200N	ZTS-LMU-200N	FAP2-LMU-200N	200N		200.0N	0.1N
ZTA-LMU-500N	ZTS-LMU-500N	FAP2-LMU-500N	500N		500.0N	0.1N

•LU series

Model			Capacity	Accuracy (*1)	Display	Resolution
ZTA	ZTS	FA Plus2				
ZTA-LU-100N	ZTS-LU-100N	FAP2-LU-100N	100N	+/-1.0%F.S. or less	100.0N	0.1N
ZTA-LU-200N	ZTS-LU-200N	FAP2-LU-200N	200N		200.0N	0.1N
ZTA-LU-500N	ZTS-LU-500N	FAP2-LU-500N	500N		500.0N	0.1N
ZTA-LU-1000N	ZTS-LU-1000N	FAP2-LU-1000N	1000N		1000N	1N
ZTA-LU-2000N	ZTS-LU-2000N	FAP2-LU-2000N	2000N		2000N	1N

* Refer to the specification of indicator for details.

*1 It is the accuracy of the sensor and indicator combined.

-eZ-Connect load cell models

Load cell model		Capacity	Accuracy (*1)	Display	Resolution
eLMU series	eLU series				
eLMU-50N	-	50N	Accuracy of sensor + Accuracy of amplifier	50.00N	0.01N
eLMU-100N	eLU-100N	100N		100.0N	0.1N
eLMU-200N	eLU-200N	200N		200.0N	0.1N
eLMU-500N	eLU-500N	500N		500.0N	0.1N
-	eLU-1000N	1000N		1000N (1.000kN)	1N (0.001kN)
-	eLU-2000N	2000N		2000N (2.000kN)	1N (0.001kN)

*1 Total accuracy when combined with the eZ-Connect series amplifier.

e.g. Total accuracy of eCLFX and eZT → +/-1.2%F.S. or less (Load cell: +/-1.0%F.S. or less + Amplifier: +/-0.2%F.S. or less)

* Please refer to the accuracy of the sensor of eZ-Connect in the Specifications (eZ-Connect series) table.

[Related products]

-Hoisting attachments and adapters

Hoisting Attachment for High Capacity Load Cell EB/EN series			Conversion Adapter CA series		
	For hoisting an attachment or sample			For converting the screw diameter of loadcell or attachment	
	Model	Feature		Model	Feature
	EN-500N	Hoisting Attachment for LMU series		CA-F5T6	Mount the M6 attachment to LMU series
EB-500N-M8	Hoisting Attachment for LU series				





-Cables

Model	Description	Purpose of use
CB-108	Analog cable (3m)	To connect to a multi meter, oscilloscope
CB-118	Analog cable (For -AN option)	To connect to a multi meter, oscilloscope
CB-208	RS232C cable (3m)	To connect to a PC having its own system
CB-908	Open end cable (3m)	Output cable for loose wire 37 pin (Useful for connection with unique equipment.)

-Data analysis software Force Recorder

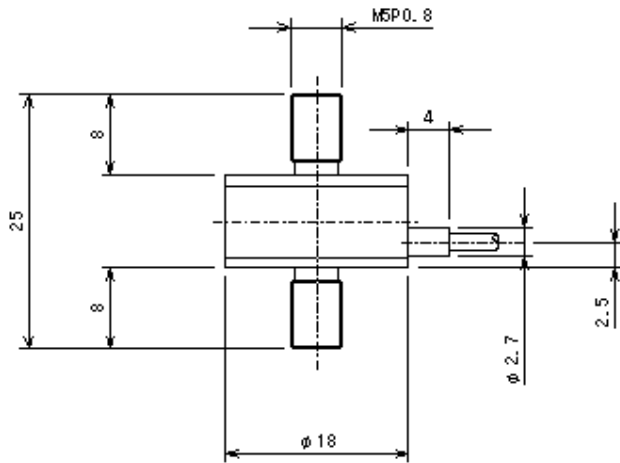
Image	Features
	<ul style="list-style-type: none"> - You can make graphs of force-displacement at real time via USB connection at 2000Hz. - You can write memo on each graph. You may write down testing conditions such as testing speed. - Up to 5 graphs can be overlaid. (Standard, Professional edition) - It enables to analyze force-displacement relationships. (Professional edition)
*The image is Force Recorders Standard.	* Refer to each specification for further information.

-Other load cell line-up

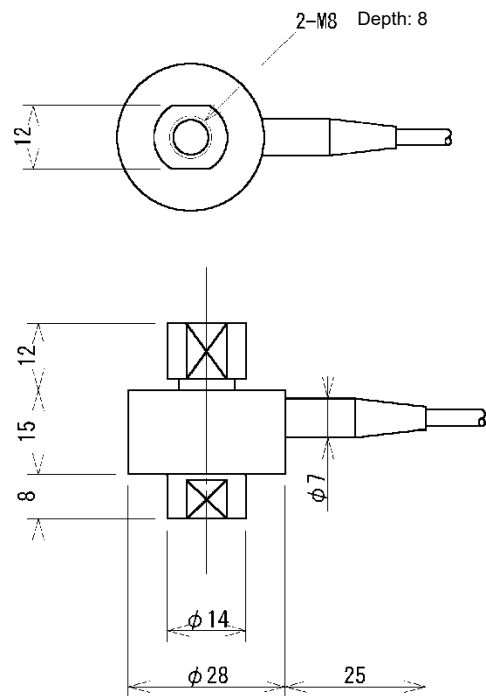
Standard type DPU series	Coin shaped type LM series	Pen type PN-50N	For automatic doors DM-2000N
High accuracy built-in type load cell for general use	Coin size load cell for compression	Pen-shaped to fit for measuring control force of small samples	Fits to measure automatic door closing force
			

[Dimensions]

LMU series



LU series



Unit: mm

[Cautions]

- Information in this document is subject to change without prior notice.
- This document is product descriptions and handling precautions, and do not guarantee various characteristics or safety.
- 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.
- Do not use this product in the environments including fierce temperature changes, high temperature, high humidity, near water, dusty place.

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