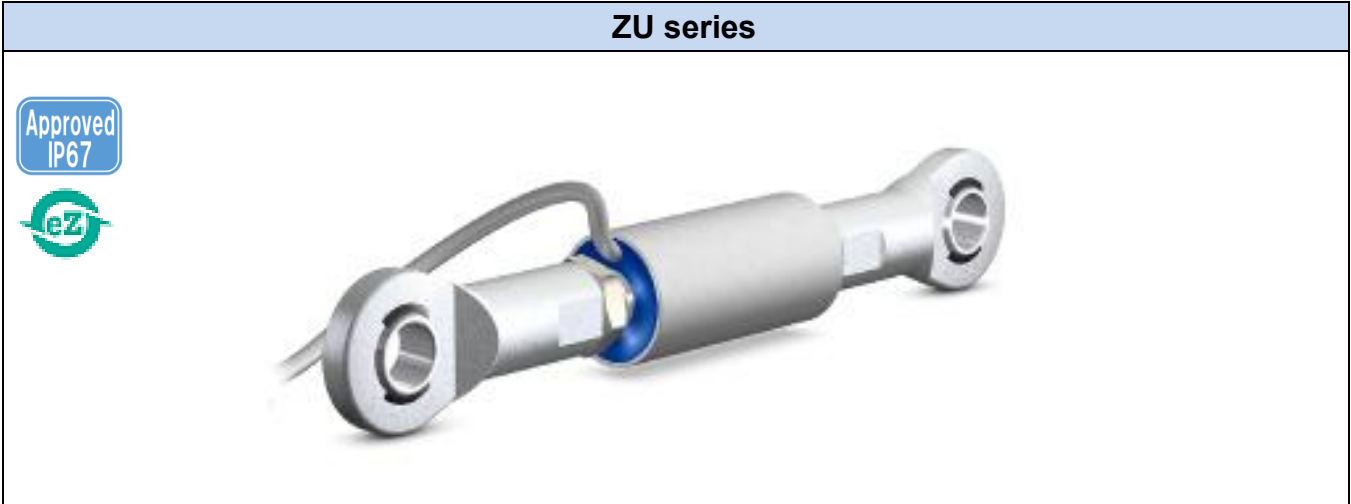


## High-Capacity Tension Load Cell ZU series

- Thanks to the rod ends, easy to attach the sample at one end and pull the other end
- The external sensor with its cable enables the tester to check the result at the remote place \*Refer to next page for available amplifier options



### 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. 

Specifications		
Model	ZU series	eZU series 
Capacity	10kN,20kN	
Accuracy *1	+/- 1.0%F.S. or less	
Rated output	+/- 1.5mV/V	
Nonlinearity	+/- 0.5% R.O	
Allowable voltage	10V DC	
Safe overload rating	120%	
Working environment (allowable temperature)	-10 to +50 degrees (-30 to +50 degrees)	
Temperature influence at 0 point	0.005%/degrees	
Temperature influence for output	0.005%/degrees	
Weight	Approx. 540g	
Cable	ZU-10kN/20kN: approx. 5m	
Dimensions	See [Dimensions]	
International Protection *2	IP67	

\*1 It is the accuracy of the load cell itself. See page 3 for the accuracy of combinations with the amplifier (indicator) under [Models of sensors combined with indicators (Separated sensor models)] and [eZ-Connect series (Sensor interchangeable model)].






\*2 IP67 is only approved for the load cell itself. The amplifier (indicator) and the connector parts are not secured.

\* An amplifier (indicator) is required to read values. Refer to "Available amplifiers (indicators)" below for details.

\* When ordering load cell without indicators, three connector types are available. See [Load cell only] on page 3 for details.

The load cells are not guaranteed either for the operability with your own amplifier (indicator) or for the accuracy as a result of such use.

### [Available Amplifiers (Indicators)]

Separated Sensor Model		
Handheld type ZTS series	Handheld type ZTA series	Desktop type FA Plus2
		
- Handheld use - Specific purpose - 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 sensors combined with indicators (Separated sensor models)]**

Model			Capacity	Accuracy *1	Display	Resolution
ZTA	ZTS	FA Plus2				
ZTA-ZU-10kN	ZTS-ZU-10kN	FAP2-ZU-10kN	10kN	+/- 1.0% F.S. or less	10.00kN	0.01kN
ZTA-ZU-20kN	ZTS-ZU-20kN	FAP2-ZU-20kN	20kN		20.00kN	0.01kN

\* Refer to each indicator specification for details.  
\*1 It is the accuracy of the sensor and the indicator combined.

**[eZ-Connect series (Sensor interchangeable model)]**



Model	Capacity	Accuracy *1	Display	Resolution
eZU-10kN	10kN	+/- 1.0% F.S. or less + Accuracy of amplifier	10.00kN	0.01kN
eZU-20kN	20kN		20.00kN	0.02kN

\*1 Total accuracy when combined with the eZ-Connect series amplifier.  
e.g. Accuracy combined with eZT → +/-1.2%F.S. or less (Load cell: +/-1.0%F.S. or less + Amplifier: +/-0.2%F.S. or less)



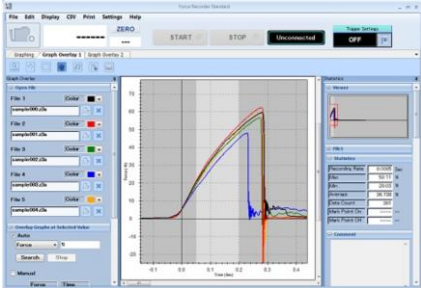
**[Load cell only]**

Model	Capacity
ZU-10kN	10kN
ZU-20kN	20kN

\* When ordering load cell only, choose the connector type from the table below.

Code	-5P	-6P	-OC
Connector shape	 5 pin	 6 pin	Without Connector (Open end)
Connect to	ZT series, FA Plus2,etc	Some discontinued IMADA products	For installing in equipment
*Check the connector shape of your equipment to connect.			

\* Add the code to the end of model. For example, When ordering ZU-10kN with 5 pin, the product model is "ZU-10kN-5P".

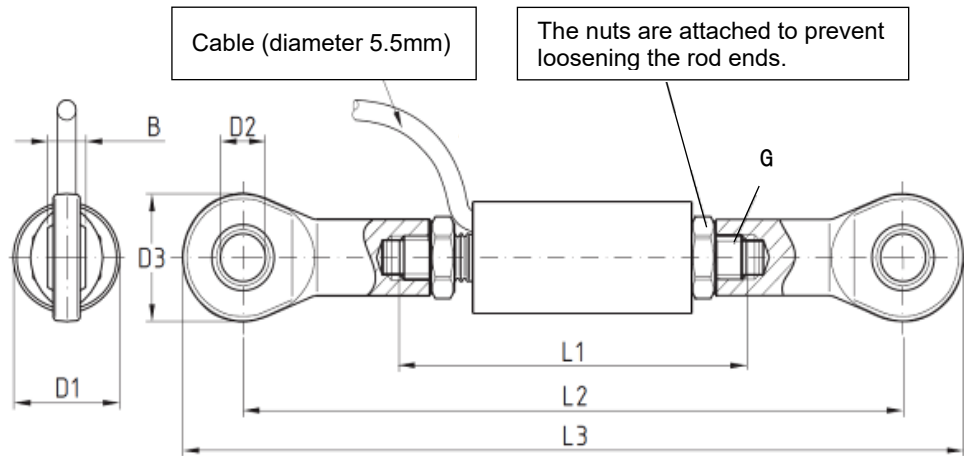
Related Products	
<b>High Capacity Load Cell DPUH series</b>	<b>High Capacity Load Cell SW3 series</b>
	
Load cell DPUH series is high capacity type for both tension and compression testing with 1000N to 20kN capacity.	Load cell SW series is waterproof and dust-proof type for both tension and compression testing with 100N to 20kN capacity.
Graphing Software: Force Recorder	
	<ul style="list-style-type: none"> <li>- You can make graphs of force-displacement at real time via USB connection at 2000Hz.</li> <li>- You can write memo on each graph. You may write down testing conditions such as testing speed.</li> <li>- 5 graphs at maximum can be overlaid. (Standard, Professional edition)</li> <li>- It allows analysis of torque-angle relationships. (Professional edition)</li> </ul> <p>* Please refer to each specification sheet for further information.</p>
<p>*The image is Force Recorder Standard.</p>	

Related Cable		
Model	Explanation	Purpose of use
CB-108	Analog cable	To connect to a multi meter, oscilloscope.
CB-118	Analog cable (For optional -AN)	To connect to a multi meter, oscilloscope.
CB-208	RS232C cable	To connect to PC having its own system.
CB-908	Open end connection cable	To connect to unique equipment with 37 pin open end cable.
CTB-A	Cable with Terminal Block	To allow connection with linear scale and external equipment such as PLC *1

\*1 Displacement function is only available in ZTA series, eZT, FA Plus2, eFA Plus2.

**[Dimensions]**

**ZU series**



Model	D1	L1	G	L2	L3	D2	D3	B
<b>ZU-10kN</b>	28	105	M12	168-178	200-210	Dia.12H7	Dia.30	16
<b>ZU-20kN</b>	50	105	M14	185-195	224-234	Dia.15H7	Dia.39	12

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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