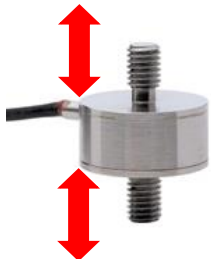
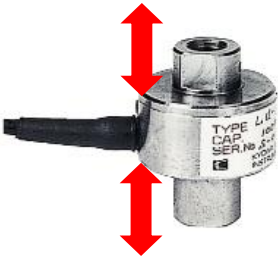
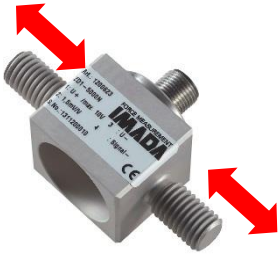


## Load cell LMU/LU/ZD series

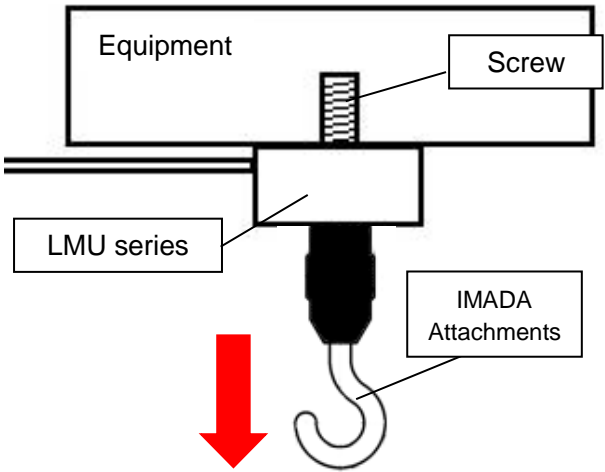
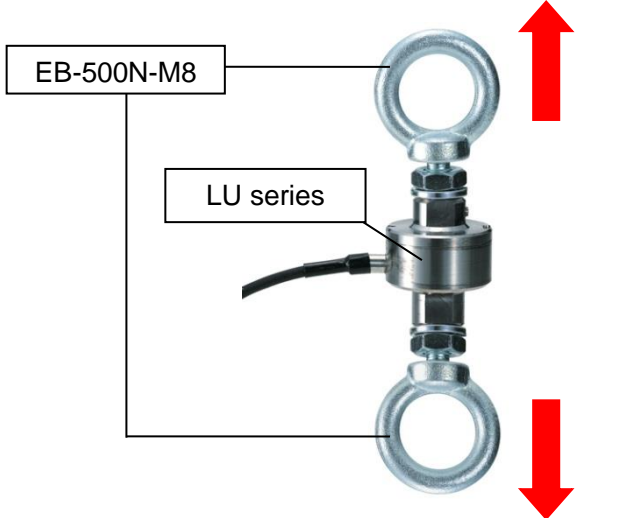
- Small and light weight load cells. They are suitable for a narrow space.
- It can be screwed with the both ends. Easy installation and fixation.

\*They are used combining an indicator. Please refer to Page 4~6.

Model	Extra small type:LMU series	Small type: LU series	High capacity type: ZD
Capacity	50N~500N	50N~2000N	1000N~20kN
Force direction	Convertible type for Compression and Tension	Convertible type for Compression and tension	Exclusive type for Compression or Tension (*)
Screws	Male screw(M5)	Female screw(M8)	Male screw(M12)
0Photos			

\*Please choose the direction before you purchase.

[Using image]

Installing in equipment.	Hanging on equipment / Hooking samples
	

\* Attachments and EB-500N-M8 are sold separately. Please feel free to contact our service group (+81-(0)532-33-3288) if you need.

[Specifications]

Model	LMU series	LU series	ZD series
Capacity	Please refer the model list	Please refer the model list	Please refer the model list
Rated output	+/-1mV / V +/-10% (20N is 0.75mV/V~1mV/V)	+/-0.9~1.4mV / V	1.5mV/V
Nonlinearity	0.5%R.O	0.5%R.O	0.25%R.O
Hysteresis	0.5%R.O	0.5%R.O	-
Recommended voltage (allowable applied voltage)	1~3V AC or DC (5V AC or DC)	2~5V AC or DC (7V AC or DC)	-
Safe overload rating	120%R.O	150%	150%
Working environment (allowable temperature)	0~50 degree Celsius (-10~60 degree Celsius)	0~70 degree Celsius (-10~70 degree Celsius)	-20~80 degree Celsius
Temperature influence for 0 degree	0.005%/ degree Celsius	0.05%/ degree Celsius	0.02%/ degree Celsius
Temperature influence for output	0.01%/ degree Celsius	0.05%/ degree Celsius	0.02%/ degree Celsius
Cable	Approx.2m (with a connector)	Approx.3m (with a connector)	Approx.3m (with a connector)
Dimensions	Please refer the dimension	Please refer the dimension	Please refer the dimension
International Protections	-	-	IP67

[eZ-Connect series load cell specification]

Model	eLMU series	eLU series	eZD series
Capacity	Please refer the model list	Please refer the model list	Please refer the model list
Accuracy	+/-1.0%F.S or less	+/-1.0%F.S. or less	+/-0.5%F.S. or less
Safe overload rating	120%R.O	150%	150%
Working environment (allowable temperature)	0~50 degree Celsius (-10~60 degree Celsius)	0~70 degree Celsius (-10~70 degree Celsius)	-20~80 degree Celsius
Cable	Approx.2m (with a connector)	Approx.3m (with a connector)	Approx.3m (with a connector)
Dimensions	Please refer the dimension	Please refer the dimension	Please refer the dimension
International Protections	-	-	IP67

\*International Protection is approved for the load cell only. The amplifier (indicator), the connecting part and the connector are not approved.

\*Please refer on the Page 6 for the eZ-Connect details.

[Model lists]

oLMU series

Model	eZ-Connect series model	Capacity	Diameter
LMU-50N	eLMU-50N	50N	M5 P0.8
LMU-100N	eLMU-100N	100N	
LMU-200N	eLMU-200N	200N	
LMU-500N	eLMU-500N	500N	

oLU series

Model	eZ-Connect series model	Capacity	Diameter
LU-50N	eLU-50N	50N	M8
LU-100N	eLU-100N	100N	
LU-200N	eLU-200N	200N	
LU-500N	eLU-500N	500N	
LU-1000N	eLU-1000N	1000N	
LU-2000N	eLU-2000N	2000N	

oZD series

Model	eZ-Connect series model	Capacity	Diameter
ZD1-1000N	eZD1-1000N	1000N	M12P1.75
ZD1-2000N	eZD1-2000N	2000N	
ZD1-5000N	eZD1-5000N	5000N	
ZD1-10kN	eZD1-10kN	10kN	
ZD1-20kN	eZD1-20kN	20kN	

**Force value display/ Data management/ Operating external device  
are ALL possible by combining with IMADA amplifier.**

→There are 3 selectable amplifiers.

Amplifier	Feature
ZT series	High accuracy and Easy operation
FA-Plus	Stable installation
eZ-Connect series :eZT	Interchangeable multiple sensors

**Sensor separate type force gauge ZT Series**



- [Remote operation](#)  
→Measurement value is possible to check easily apart from the sensor. Users can keep safe distance even if the test involves some danger like Crushing test.
- [Easy data management on PC](#)  
→Included software “ZT-Logger” helps to export continuous data to PC. Furthermore, separately-sold software “Force Recorder” enables to draw into a graph in real time at 2000Hz. It also inputs sampling date and time at the same. Data management can be easy.
- [Various outputs for operating external devices](#)  
→It realizes machine working control by force, Pass/Fail decision and more.

\*It is inappropriate to interchange the load cells.  
\*The accuracy adjustment and the calibration are necessary whenever changing load cells.

Accuracy Guarantee  
-The inspection certificate by force data is attached.  
-Please request us the calibration certificate if necessary.

[The range list connecting with ZT series]

Model		Capacity	Accuracy(*1)	Display	Resolution
ZTA-LMU-50N	ZTS-LMU-50N	50N	+/-1%F.S. or less	50.00N	0.01N
ZTA-LMU-100N	ZTS-LMU-100N	100N		100.0N	0.1N
ZTA-LMU-200N	ZTS-LMU-200N	200N		200.0N	0.1N
ZTA-LMU-500N	ZTS-LMU-500N	500N		500.0N	0.1N

Model		Capacity	Accuracy(*1)	Display	Resolution
ZTA-LU-50N	ZTS-LU-50N	50N	+/-1%F.S. or less	50.00N	0.01N
ZTA-LU-100N	ZTS-LU-100N	100N		100.0N	0.1N
ZTA-LU-200N	ZTS-LU-200N	200N		200.0N	0.1N
ZTA-LU-500N	ZTS-LU-500N	500N		500.0N	0.1N
ZTA-LU-1000N	ZTS-LU-1000N	1000N		1000N	1N
ZTA-LU-2000N	ZTS-LU-2000N	2000N		2000N	1N

Model		Capacity	Accuracy(*1)	Display	Resolution
ZTA-ZD1-1000N	ZTS- ZD1-1000N	1000N	+/-0.5%F.S. or less	1000N(1.000kN)	1N(0.001kN)
ZTA-ZD1-2000N	ZTS- ZD1-2000N	2000N		2000N(2.000kN)	1N(0.001kN)
ZTA-ZD1-5000N	ZTS- ZD1-5000N	5000N		5000N(5.000kN)	1N(0.001kN)
ZTA-ZD1-10kN	ZTS- ZD1-10kN	10kN		10.00kN	0.01kN
ZTA-ZD2-20kN	ZTS- ZD2-20kN	20kN		20.00kN	0.01kN

\* Please refer to the each amplifier specification for the detail.

\*1The accuracy is only available for combinations with ZT series

**Desk top amplifier FA Plus**



- [The box shape realizes easy installations on a desk or in equipment](#)
- [The sampling rate is equals to ZT series 2000Hz.](#)

**Accuracy Guarantee**

- The inspection certificate is attached only when the below set models are ordered.
- The inspection certificate is NOT attached when FA Plus and the load cell are separately ordered.
- Please request us the calibration certificate if necessary.

[The range list connecting with FA Plus]

Model	Capacity	Accuracy(*1)	Display	Resolution
FAP-LMU-50N	50N	+/-1%F.S. or less	50.00N	0.01N
FAP-LMU-100N	100N		100.0N	0.1N
FAP-LMU-200N	200N		200.0N	0.1N
FAP-LMU-500N	500N		500.0N	0.1N

Model	Capacity	Accuracy(*1)	Display	Resolution
FAP-LU-50N	50N	+/-1%F.S. or less	50.00N	0.01N
FAP-LU-100N	100N		100.0N	0.1N
FAP-LU-200N	200N		200.0N	0.1N
FAP-LU-500N	500N		500.0N	0.1N
FAP-LU-1000N	1000N		1000N	1N
FAP-LU-2000N	2000N		2000N	1N

Model	Capacity	Accuracy(*1)	Display	Resolution
FAP-ZD1-1000N	1000N	+/-0.5%F.S. or less	1000N(1.000kN)	1N(0.001kN)
FAP-ZD1-2000N	2000N		2000N(2.000kN)	1N(0.001kN)
FAP-ZD1-5000N	5000N		5000N(5.000kN)	1N(0.001kN)
FAP-ZD1-10kN	10kN		10.00kN	0.01kN
FAP-ZD2-20kN	20kN		20.00kN	0.01kN

\* Please refer to the each amplifier specification for the detail.

\*1The accuracy is only available for combinations with FA Plus.

**eZ-Connect: Interchangeable sensor amplifier eZT**



- [ONE amplifier can be used with multiple load cells.](#)  
→It is possible to be carried out different range, circumstance and other measurements by changing load cells.
- [Basic functions are equal to ZTA.](#)

**Accuracy Guarantee**

-The inspection certificate by force data is NOT attached.  
-Please request us the calibration or the calibration document if necessary.

[The range list connecting with eZT]

Amplifier Model	Load cell model	Capacity	Accuracy(*1)	Display	Resolution
eZT	eLMU-50N	50N	+/-1.2%F.S. or less	50.00N	0.01N
	eLMU-100N	100N		100.0N	0.1N
	eLMU-200N	200N		200.0N	0.1N
	eLMU-500N	500N		500.0N	0.1N

Amplifier Model	Load cell model	Capacity	Accuracy(*1)	Display	Resolution
eZT	eLU-50N	50N	+/-1.2%F.S. or less	50.00N	0.01N
	eLU-100N	100N		100.0N	0.1N
	eLU-200N	200N		200.0N	0.1N
	eLU-500N	500N		500.0N	0.1N
	eLU-1000N	1000N		1000N	1N
	eLU-2000N	2000N		2000N	1N

Amplifier Model	Load cell model	Capacity	Accuracy(*1)	Display	Resolution
eZT	eZD1-1000N	1000N	+/-0.7%F.S. or less	1000N(1.000kN)	1N(0.001kN)
	eZD1-2000N	2000N		2000N(2.000kN)	1N(0.001kN)
	eZD1-5000N	5000N		5000N(5.000kN)	1N(0.001kN)
	eZD1-10kN	10kN		10.00kN	0.01kN
	eZD2-20kN	20kN		20.00kN	0.01kN

\* Please refer to the each amplifier specification for the detail.





\*1The accuracy is only available for combinations with eZT series.

[Related products]

Hoisting attachments EB/EN series		
	They are attachments for hanging samples and load cells.	
	Models	
	EN-500N	Hoisting attachments for LMU.
	EB-500N-M8	Hoisting attachments for LU.

[Other load cell line-up]

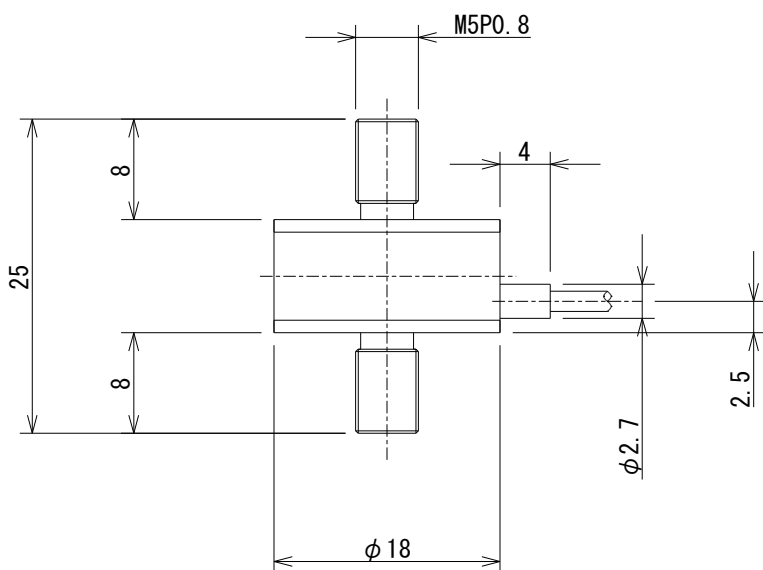
Variety of load cells are available for your needs.

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

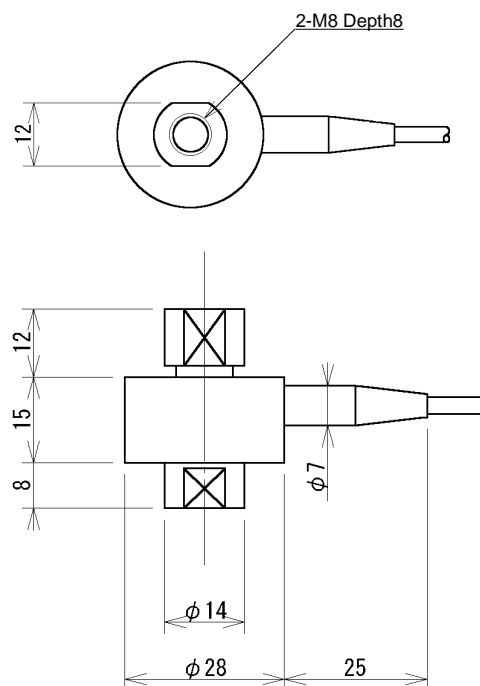
\*Please refer to the each specification for the each load cell.

[Dimensions]

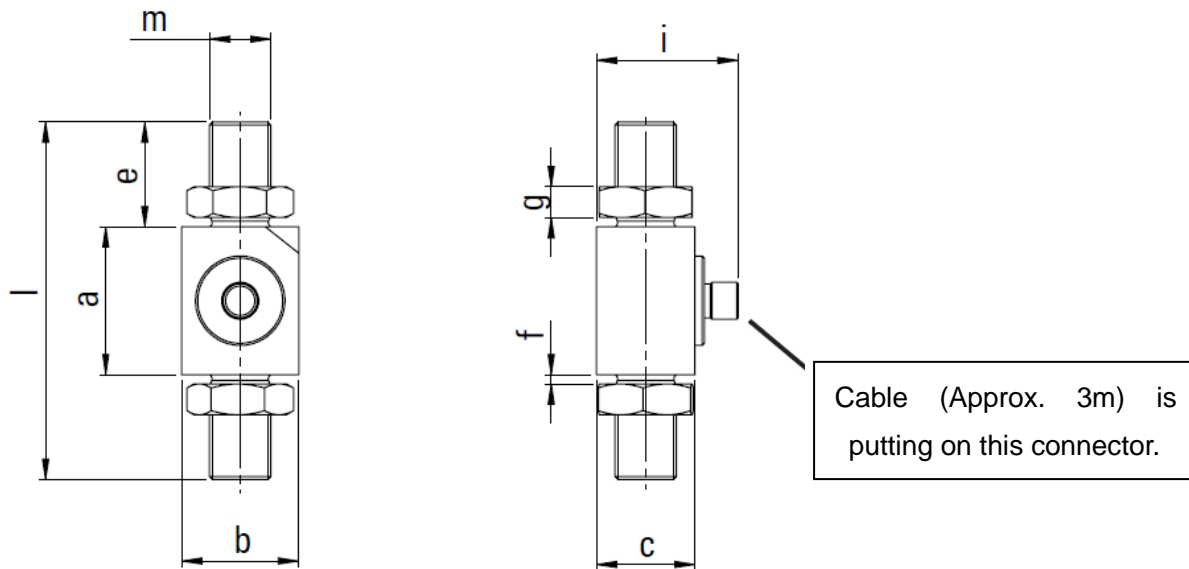
LMU series



LU series



ZD series



Model	l	e	a	b	c	g	i	f	l1	d1	d2	a1	m
ZD1-1000N	78	21	36	30	30	6	44	2~4	154	12	32	10	M12
ZD1-2000N													
ZD1-5000N													
ZD1-10kN													
ZD1-20kN	116	34	48	38	32	10	46	2~4	228	20	51	16	M20×1.5

[Caution]

- This product is designed for force measurement only. Do not use it for other purpose.
- Please pay close attention to install this products.
  - Never apply strong force or impact especially on the sensing direction.
  - Do not apply bending or torsion stress when setting up the sensing shaft to a measuring object.
- Do not use in the condition of rapid temperature changes, high temperature, high humidity, near water and dusty place.
- The contents may be changed without notice in advance.
- Please note the allowable values are a little different by the selecting unit of the amplifier. Please contact us if you need the details.

Please feel free to contact us (+81-(0)-532-33-3288) for your measurement.