

Pen type load cell PN-50N

- Pen shaped load cell for compression and tension testing
- Designed for compression testing of small samples directly by hand
- Suitable for measuring switches and other small parts

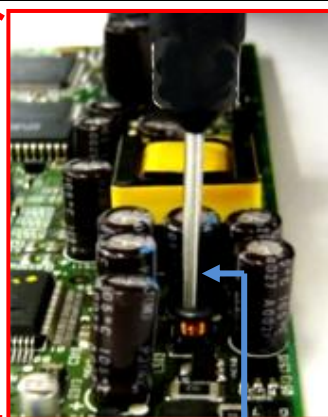
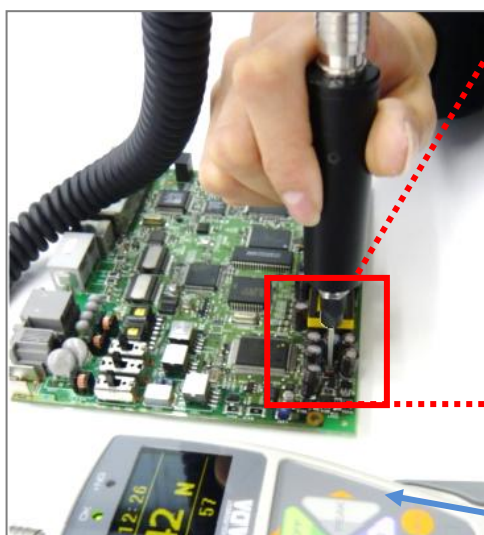
Pen type load cell: PN-50N

Capacity: 50N



* An amplifier (indicator) is required to read values. Refer to "Available Amplifiers (Indicators)" on page 3 for details.

Testing Image



PG series (*)

The indicator ZT series

You can apply force to a sample by holding the load cell like a pen, therefore, it is ideal for measurement of small samples in narrow space.

* Indicator and pin gauge PG series are sold separately. Refer to page 3 for details.




: 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	PN-50N	ePN-50N	
Capacity	50N		
Accuracy	+/-2.0%F.S or less		
Rated output	1mV / V+/-10%	-	
Nonlinearity	0.3%R.O.	-	
Hysteresis	0.3%R.O.	-	
Recommended voltage (Allowable applied voltage)	5V DC or AC(8V DC or AC)	-	
Safe overload rating	150%R.L.		
Working environment (Allowable temperature)	0 to +50 degree Celsius (-10 degree Celsius to +60 degree Celsius)		
Temperature influence for 0 point	0.05%/ degree Celsius	-	
Temperature influence for output	0.05%/ degree Celsius	-	
Weight	Approx. 50g		
Cable Length (*1)	Approx. 2m		
Mount screw	M6 P1.0		
Dimension	Refer to [Dimension]		

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



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

* 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.

* When ordering load cell without indicators, three connector types are available. Refer to below table for details.

For example, when ordering PN-50N with 5 pin, the product model is "PN-50N-5P".

[Connector Type]

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

Cable Options			
	Code *1	Cable Length	Description
Extended Cable	-()m	Max. 10m *2	It is an option to change the cable to extended cable which connects to the amplifier (indicator).
Flexible Cable	-BR()m	Max. 10m	It is an option to change the cable to high flexible cable to reduce the risk of breakage during bending.

*1 Put Cable Length before "m" of Code. The order increment of the optional cable length is every meter.







*2 The cable length is the sum of the standard cable length and the extended cable one.

* To maintain the signal quality, the cable length is limited.

* When ordering cable option, add the cable option code before the connector shape code.

For example, when ordering PN-50N-5P with 10m cable length, the product model is "PN-50N-10m-5P".

[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 the details.

[Models of sensors combined with indicators (Separated sensor models)]

Model			Capacity	Accuracy (*1)	Display	Resolution
ZTS	ZTA	FA Plus2				
ZTS-PN-50N	ZTA-PN-50N	FAP2-PN-50N	50N	+/-2.0% F.S. or less	50.00N	0.01N

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

[eZ-Connect series (Sensor interchangeable model)]


Model		Capacity	Accuracy (*1)	Display	Resolution
Amplifier: eZT Load cell: ePN-50N	Amplifier: eFA Plus2 Load cell: ePN-50N	50N	Accuracy of sensor + Accuracy of amplifier	50.00N	0.01N

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

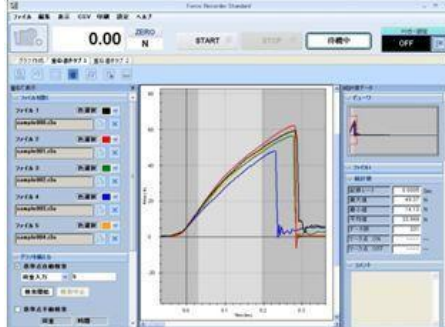
e.g. Total accuracy of eCLFX and eZT → +/-1.2%F.S. or less (Load cell: +/-1.0%F.S. or less + Amplifier: +/-0.2%F.S. or less)

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





[Related products]

Pin gauge PG series	Optional Cables
It is a columnar fixture with diameter from $\phi 2\text{mm}$ to 5mm , which can be used in narrow spaces.	Various cables are available to suite your needs.
	Analog cable (3m): CB-108
	Analog cable (For -AN option): CB-118
	RS232C cable (3m): CB-208
	Open end cable (3m): CB-908
	Terminal block cable (1m) : CTB-A

Graphing Software: Force Recorder

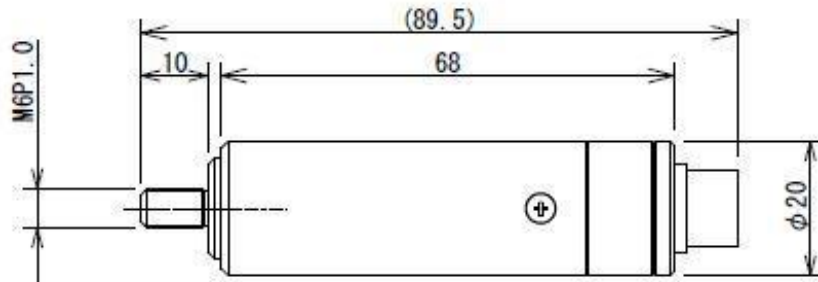
 <p>*The image is Force Recorders Standard.</p>	<ul style="list-style-type: none"> - Plots graphs of force-time at real time via USB connection at 2000Hz - Comment function for keeping a note of testing conditions such as testing speed - Overlays up to 5 graphs (Standard, Professional edition) - Analyzes force-displacement relationships (Professional edition) <p>* Refer to each specification sheet for further information.</p>
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[Other load cell line-up] (We offer a wide range of load cells to fit your measurement needs.)

Standard DPU series	Coin shaped type LM series	Extra small type LMU series	For automatic doors DM-2000N
High accuracy built-in type for general use	Coin size load cell for compression	Extra small load cell for both tension and compression	Ideal for measurement of automatic door closing force
			

* Refer to each load cell specification for details.

[Dimensions]



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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