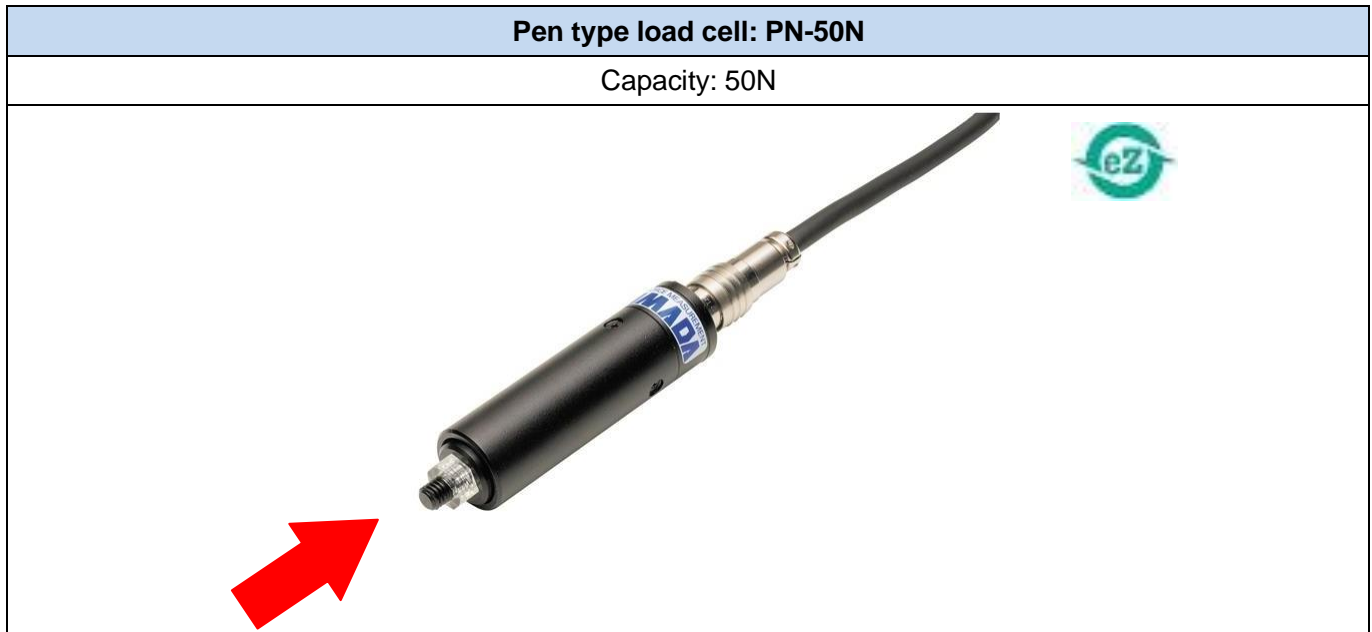
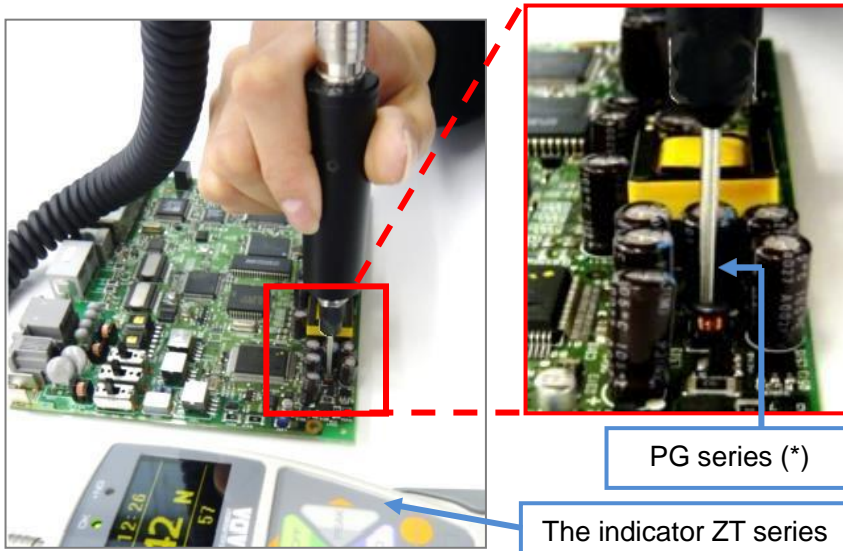


# Pen type load cell PN-50N

- 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



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


Testing Image	
	<p>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.</p> <p>* Indicator and pin gauge PG series are sold separately. Refer to page 3 for details.</p>

: **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



Specification		
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	Approx. 2m	
Mount screw	M6 P1.0	
Dimension	Refer to [Dimension]	

\* 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".

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)					
Type	Separated Sensor Model			eZ-Connect series Sensor Interchangeable Amplifier	
Indicator	Handheld type ZTS series	Handheld type ZTA series	Desktop type FA Plus2	Desktop type eFA Plus2	Handheld type eZT
Image					
Feature	<ul style="list-style-type: none"> <li>- Handheld use</li> <li>- Specific purpose</li> <li>- Higher accuracy</li> </ul>	<ul style="list-style-type: none"> <li>- Handheld use</li> <li>- Specific purpose</li> <li>- Higher accuracy</li> <li>- I/O displacement</li> <li>- Data saving to USB</li> </ul>	<ul style="list-style-type: none"> <li>- Desktop use</li> <li>- Specific purpose</li> <li>- Higher accuracy</li> </ul>	<ul style="list-style-type: none"> <li>- Desktop use</li> <li>- Load cell interchangeable (such as measurement of tension and torque, or low and high load)</li> </ul>	<ul style="list-style-type: none"> <li>- Handheld use</li> <li>- Load cell interchangeable (such as measurement of tension and torque, or low and high load)</li> </ul>

\* 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)]**

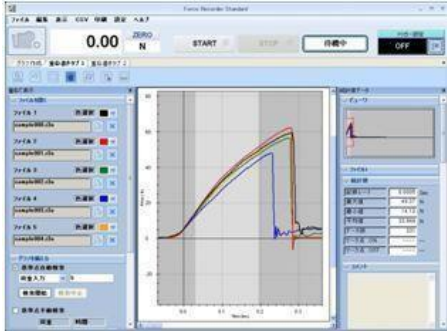
Model		Capacity	Accuracy (*1)	Display	Resolution
Amplifier: eZT Load cell: ePN-50N	Amplifier: eFA Plus2 Load cell: ePN-50N				

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

**[Related products]**

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

**Graphing Software: Force Recorder**







\*The image is Force Recorders Standard.

- 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)

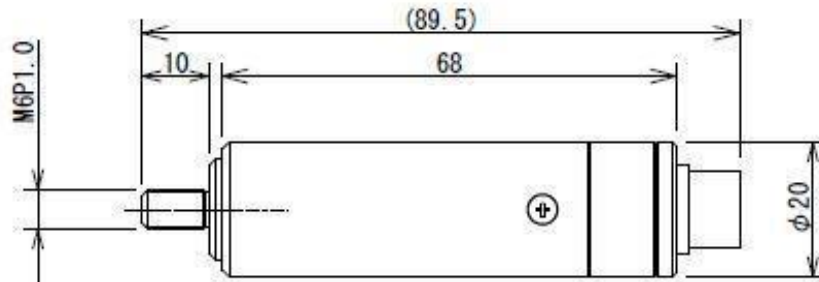
\* Refer to each specification sheet for further information.

**[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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