


## Extra Compact Tension and Compression Load Cell SCX series

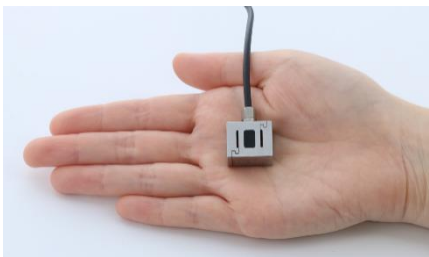

- Extra compact body to suit measurement where access is limited
- Mountable to equipment with female threads on both ends of the sensor
- Reduces risk of overload with mechanical stopper \*
- 5 selectable amplifiers to fit for purpose
- Graphing software (separately sold) available for analysis of results

\* It does not guarantee complete prevention of overload.




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

\* eZ-Connect series load cells  are interchangeable and can be connected to one amplifier without adjustment, therefore suitable for measurement of different types of force (e.g. tension and torque) or ranges (e.g. small force and high capacity).

Features	
<b>Miniature Body</b> Very small in size; 16(L)x12(W)x19.1(H) mm 	<b>Fit for Integration</b> M6 threads allow easy integration 

\* Do not screw in more than 3mm deep into the M6 threads to avoid damaging the sensor.

Testing Examples
Integration into a variety of machine including tactile test system and medical equipment, measurement of gripping force of cabinet drawers, etc.

Specifications		
Model	SCX series	eSCX series 
Capacity	Refer to page 3	
Accuracy (*1)	+/- 1.0%F.S.	-
Rated Output	1.5-2.2mV/V	-
Recommended Voltage (Allowable Voltage)	5V-10V DC (15V DC)	-
Safe Overload Rating	150 %	
Recommended Temperature (Allowable Temperature)	-10 to 60 degrees Celsius (-20 to 80 degrees Celsius)	
Cable Length (*3)	Approx. 3m	
Dimensions	See [Dimensions]	
Weight	Approx. 84g	
Protection Rating (*2)	IP65	

\*1 It is the accuracy of the sensor only. Refer to page 3 for the accuracy of combinations with the amplifier (indicator) under [Models of Sensors Combined with Indicators (Separated sensor models)] and [Models of eZ-Connect Series (Sensor Interchangeable Model)].







\*2 IP is only approved for the sensor part. The amplifier (indicator), the connector parts, and cable are not secured.

\*3 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 "Amplifiers (Indicators)" below for details.

\* When ordering load cell without indicators, three connector types are available. See [Models of 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 - 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 indicator for details.

### [Models of Load Cell Only]

Model		Capacity	Thread
SCX series	SCX-100N	100N	M6
	SCX-200N	200N	
	SCX-500N	500N	
	SCX-2000N	2000N	

\*A custom-made measuring shaft is available for mounting attachments with M6 threads.

### [Connector Type]

Code	-5P	-6P	-OC
Connector	 5 pin	 6 pin	Open End (without connector)
Connection	ZT series, FA Plus2, etc.	Some discontinued IMADA products	For integration
*Check the connector shape of your equipment to connect.			

\* When ordering load cell only, select the connector type and add the code to the end of the load cell model; for example, the product model for SCX-500N with 5 pin is "SCX-500N-5P".

### [Models of Sensors Combined with Indicators (Separated Sensor Models)]

Model			Capacity	Accuracy (*1)	Display	Resolution
ZTA	ZTS	FA Plus2				
ZTA-SCX-100N	ZTS-SCX-100N	FAP2-SCX-100N	100N	+/- 1.0%F.S. or less	100.0N	0.1N
ZTA-SCX-200N	ZTS-SCX-200N	FAP2-SCX-200N	200N		200.0N	0.1N
ZTA-SCX-500N	ZTS-SCX-500N	FAP2-SCX-500N	500N		500.0N	0.1N
ZTA-SCX-2000N	ZTS-SCX-2000N	FAP2-SCX-2000N	2000N		2000N(2.000kN)	1N(0.001kN)

\* Refer to the specification of indicator for details.

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

### [Models of eZ-Connect Series (Sensor Interchangeable Model)

Model		Capacity	Accuracy (*1)	Display	Resolution
eSCX series	eSCX-100N	100N	Accuracy of sensor + Accuracy of amplifier	100.0N	0.1N
	eSCX-200N	200N		200.0N	0.1N
	eSCX-500N	500N		500.0N	0.1N
	eSCX-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)

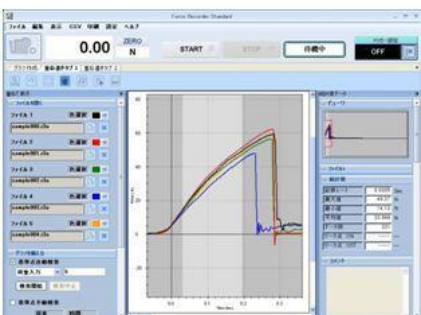
\* Please refer to the accuracy of the sensor of eZ-Connect in the Specifications table.

## [Related Products]

### - Other Load Cells

Standard type DPU series	Extra small type LMU series	Small type load cell LU series
		
High accuracy load cell for general use with 2N to 500N capacity	Extra small load cell for both tension and compression testing with 50N, 200N and 500N capacity	Small type load cell for both tension and compression testing with 500N and 2000N capacity

### - Graphing Software Force Recorder Series

Image	Features
	<ul style="list-style-type: none"> <li>- Available in 4 types; Light, Standard, Professional, and Plus</li> <li>- Plots graphs of force-displacement at real time via USB connection at max. 2000Hz or 1000Hz (Plus)</li> <li>- Comment function for keeping a note of testing conditions such as testing speed</li> <li>- Overlays up to 5 graphs (Standard and Professional) or 10 graphs (Plus)</li> <li>- Analyzes torque-angle relationships (Professional)</li> </ul> <p>* Refer to each specification sheet for further information.</p>

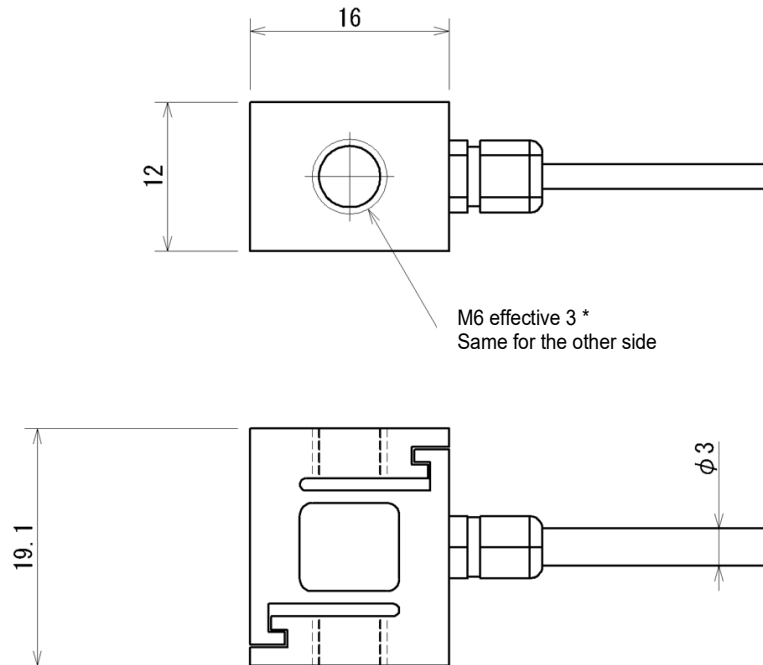
### - Cables

Model	Type	Purpose of use
CB-108	Analog cable	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	To connect to a PC or your own system
CB-908	Open end connection cable	Output cable for loose wire 37 pin (Useful for connecting your own connector)
CTB-A	Terminal Block Cable	To connect to an external equipment such as PLC or to such and linear scale (*1)

\*1 The linear scale connection is limited to models equipped with the displacement output function (ZTA series, eZT, FA Plus2, eFA Plus2).

## [Dimensions]

### SCX series



\* Do not screw in more than 3 mm as the sensor may be damaged.

Unit: mm

## [Cautions]

- Information in this document is subject to change without prior notice.
- This document introduces product descriptions and handling precautions, and it does not guarantee the features or safety mentioned therein.
- 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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