




# Flange Type Torque Load Cell TFX series

- Reaction torque sensor for torque (turning/twisting force) measurement
- Ideal for integration using through holes on both sides of the sensor
- Small body, suitable for measurements where access is limited
- 4 selectable amplifiers (indicators) to fit for purpose
- Graphing software (separately sold) available for analysis of results




\* 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	
<p><b><u>Small Size</u></b> 35 (diameter) x 28 mm (height)</p>	<p><b><u>Fit for Integration</u></b> Through holes in the upper and lower flanges for easy integration</p>
	





Testing Examples
<p>The torque value is measured by installing it to a spot where a torsional force is applied in production or inspection equipment, such as integrating into a torque tester or a torque control system of a production line. Custom-made jigs are available to meet a wide variety of torque measurement needs.</p>

Specifications		
Model	TFX series (*1)	eTFX series 
Capacity	Refer to table below	
Safe Overload Rating	Approx. 200%	
Recommended Temperature (Allowable Temperature)	-10 to 40 degrees Celsius (-20 to 80 degrees Celsius)	
Cable	Approx. 2m	
Dimensions	See [Dimensions]	
Weight	Approx. 63g	
Protection Rating (*2)	IP64	

\* An amplifier (indicator) is required to read values. Refer to "Amplifiers (Indicators)" below for details.

\*1 This model is available as a set combined with indicator; HTGS-TFX/HTGA-TFX series. Refer to the table of models below.

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

Amplifiers (Indicators)			
Type	Sensor Combined with Indicator *1		eZ-Connect series  Sensor Interchangeable Amplifier
Feature	high accuracy		no adjustment required
Indicator	Handheld Type ZTS series	Handheld Type ZTA series	Desk Type eFA Plus2 Handheld Type eZT
Image			 
Use	- For measurement with high accuracy		- For a wide variety of use
	-	- Displacement output - Data save to USB memory	
	-	-	- For integration

\* Refer to each specification for details.

\*1 A load cell and the indicator are adjusted together. Readjustment and calibration are required when changing load cells.

### [Models of Sensor Combined with Indicator]

Model		Capacity	Accuracy (*1)	Display	Resolution
HTGA-TFX	HTGS-TFX				
HTGA-TFX-5N	HTGS-TFX-5N	5N-m	+/-1.0%F.S or less	5.000N-m (500.0N-cm)	0.001N-m (0.1N-cm)
HTGA-TFX-10N	HTGS-TFX-10N	10N-m		10.00N-m (1000N-cm)	0.01N-m (1N-cm)

\* 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
eTFX series	eTFX-5N	5N-m	+/-1.2%F.S. or less	5.000N-m (500.0N-cm)	0.001N-m (0.1N-cm)
	eTFX-10N	10N-m		10.00N-m (1000N-cm)	0.01N-m (1N-cm)

\* An indicator (amplifier) for eZ-Connect is required. Refer to the specification sheet of indicator (amplifier) for details.



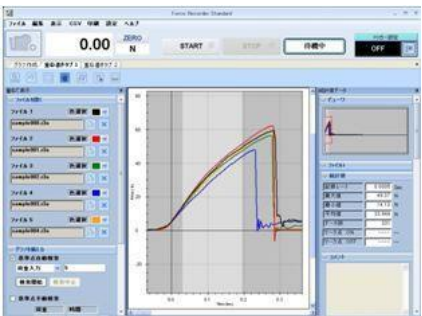
\*1 It is the accuracy of the sensor and indicator (amplifier) of eZ-connect series combined.

**[Custom-made Cables]**

Extended Cable Length	Extends the length of a cable for gauge to PC connection or load cell to amplifier connection
Enhanced Cable Flexibility	Changes the cable to a high-flex cable to reduce risks of disconnection

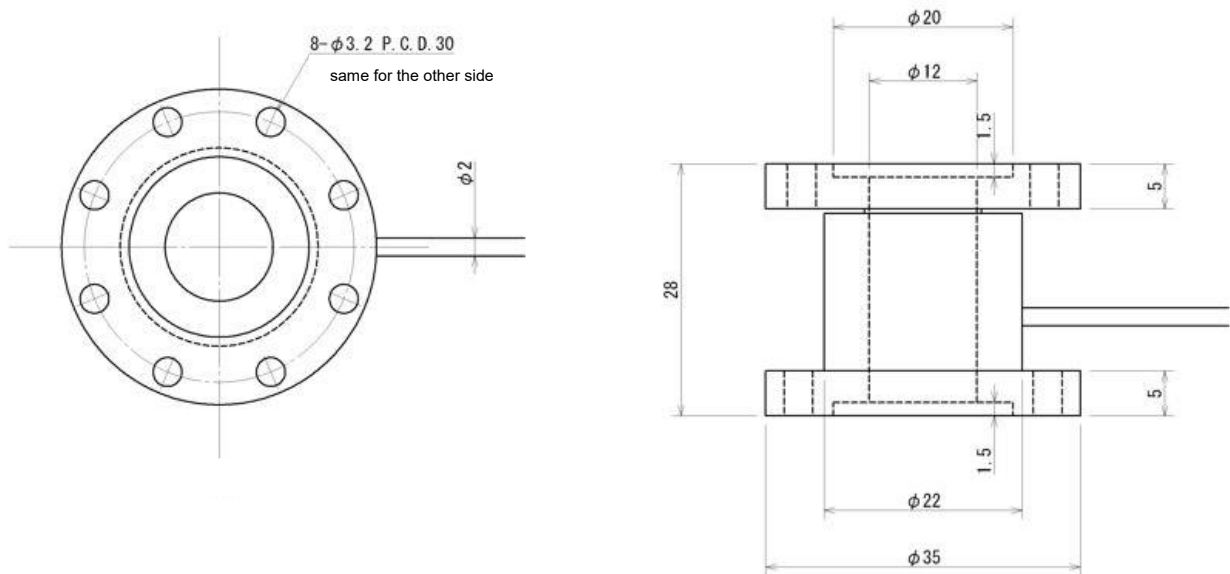
\* Contact us for details of custom-made solutions.

**[Related Products]**

Torque Load Cell: eHT series	
	<ul style="list-style-type: none"> <li>- Torque sensor for eZ-Connect series</li> <li>- Optional attachments available to meet a wide variety of measurement needs</li> </ul> <p>* Refer to the specification sheet of eHT series for details.</p>
Torque Gauge: HTGS/HTGA series	
	<ul style="list-style-type: none"> <li>- Integrated model of an indicator and torque sensor exclusively adjusted together</li> <li>- Budget solution for a specific purpose with high accuracy</li> <li>- Optional attachments available to meet a wide variety of measurement needs</li> </ul> <p>* Refer to the specification sheet of HTGS/HTGA series for details.</p>
Graphing Software: Force Recorder Series	
	<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>

## [Dimensions]

### TFX-5N/10



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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