

CJ

The birth of a tension sensor that combines high performance, compact design and greater durability than ever.

The CJ sensor is essential for tension control of sophisticated plastic films used in leading-edge industries, including flat-screen TVs, rechargeable batteries, thin and light solar cells, and organic EL lighting which is expected to become the next generation of lighting.

The CJ series of tension sensors are bearing-type sensors, so they can easily be installed on existing lines.



Steel version (standard)



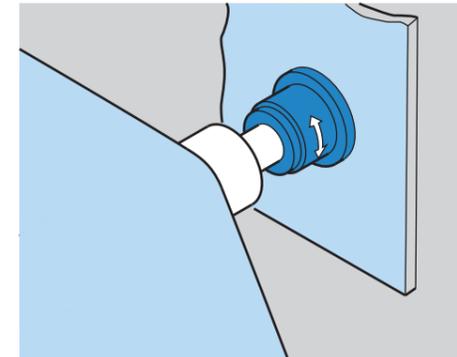
Stainless steel version (drip-proof and dust-proof) (optional)

A tough tension sensor

The CJ tension sensor has an IP66-compliant, highly-durable protective housing.

We maximized robustness to enable tension to be stably detected even under the harshest conditions. The high-precision protective housing makes it difficult for water droplets and dust to penetrate, allowing the sensor to be washed with water without constraint when washing a production line.

The Successor to the CD type, with improved stability and robustness



High Spring-Steel Rigidity

The CJ tension sensor has excellent dynamics, and its high spring-steel rigidity provides a high resonance point, making it ideal for high-speed lines.

Effective for Thin Webs

The load displacement of the MJ tension sensor is extremely low, making it effective for thin web lines (i.e., film, foil, etc.).

IP66-Compliant Protective Housing (Option)

The stainless version has an IP66-compliant protective housing that can handle being splashed with water when cleaning a production line.

Simple Construction

The use of a mono-block structure provides outstanding linearity and hysteresis.

Compact Design

Because the bearing unit and sensor are integrated, the sensor has a low profile and requires minimal installation space, enabling it to easily be installed even in confined spaces.

CJ Series Specifications

	Model	CJ200	CJ500	CJ1000
	Diagram number	MD0000360	MD0000370	MD0000380
	Diagram number with adapter unit	MD0000450	MD0000460	MD0000470
*1	Rated tension (N)	200	500	1000
*1	Maximum roll load (N)	200	500	1000
*1.5	Maximum overload	2000	5000	10000
	Roll displacement ($\mu\text{m}\cdot\text{N}$)	0.12	0.06	0.035
*2	Resonance frequency (Hz)	143.8	128.6	119.1
*3	Frequency response (Hz)	300		
*4	Main unit mass (kg)	1.0 (1.6)		
	Direction of resultant tension force	Forward or reverse		
	Mounting angle	Any desired angle		
	Supply voltage	$\pm 15\text{VDC} \pm 1\text{V}$ (+15V/50mA, -15V/10 mA)		
	Ambient temperature/humidity	0 to +50°C, 35 to 85%RH (No condensation permitted)		
	IP Protection Rating	IP30		

Notes:

- *1. The figures for rated tension, maximum roll load, and maximum overload are for double-sided detection.
- *2. The resonance frequency figures are for the tension load during double-sided detection and at maximum roll load.
- *3. The frequency response figure is with respect to a change of 1/10 in the rated tension.
- *4. The figure in parenthesis is the mass including the adapter unit.
- *5. The maximum overload represents the maximum value of the force exerted in the direction of the resultant force.