TEAC

Tension/Compression Load Cell

TU-MXR2(T)□□N-G3

Features

Compact & Small Capacity

Body Material

Aluminum

Tension/Compression Load Cell

Applications

Load measurements for Robot and Test equipment

Mounting Method

M3/M4 screws to mount Tension/Compression load certified

Durable Robot Cable standardized

Enhanced durability against bending that occurs in moving parts with frequent repetitive motion, such as industrial robots and machine tools. High stability and reliability are realized.

Plug & Play with built-in TEDS

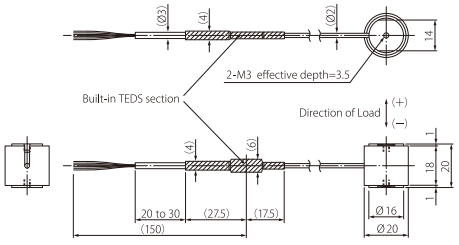
With the TD series indicators, equivalent input calibration, likely to forget in manual setting, can be performed automatically and help prevetion.
(See the reverse page for detail on TEDS)

※Product image for illustration purposes only. Actual product may vary

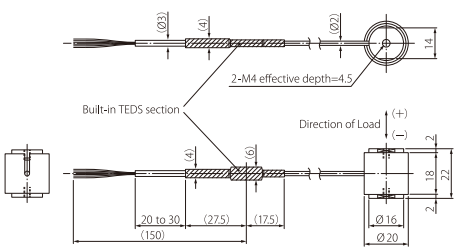
Specifications

Type	Tension/Compression Load Cell					
Model	**TU-MXR2(T)□□N-G3** TEDS (Embeded in the tip of the cable) RoHS (10 substances)					
Rated Capacity (R.C.)	**10N**	**20N**	**50N**	**100N**	**200N**	**500N**
Natural Frequency	2.2kHz	3.0kHz	5.2kHz	8.0kHz	6.6kHz	(T.B.A.)
Weight (Approx.)	9g	69g	10g	10g	21g	24g
Safe overload rating	120% R.C.					
Rated Output (R.O.)	Approx. 1.5mV/V ±30%					
Linearity	0.1% R.O.					
Hysterisis	0.1% R.O.					
Repeatability	0.1% R.O.					
Safe Excitation Voltage	8V DC / AC					
Input Terminal Resistance	350Ω ±2%					
Output Terminal Resistance	350Ω ±2%					
Insulation Resistance	1000MΩ or more (50V DC)					
Compensated Temperature Range	−10 to 45°C					
Permissible Temperature Range	−20 to 60°C					
Temperature Effect on Zero Balance	0.5% R.O. /10°C					
Temperature Effect on Output	0.5% R.C. / 10°C					
Cable	Main unit to built-in TEDS section: Φ2, 4-core shielded cable, Built-in TEDS section to the end: Φ3, 6-core shielded cable, approx. 15cm, Total 3m, direct connection robot cable with bare lead wires					
Mounting Method	M3 Screw hole					M4 Screw hole
Body Material	Aluminum					

Dimensional drawings (Units: mm)



TU-MXR2(T)10N to 200N-G3



TU-MXR2(T)500N-G3

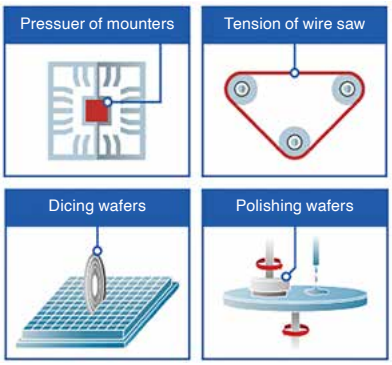
Advantages of the TEAC Load Cells

TEAC Load Cells

Since the 1980s, when TEAC started manufacturing and selling load cells, we have cultivated technologies to achieve higher precision and smaller size with our unique structures. With these technologies, a number of load cells that achieve high response, high accuracy, and high stability, as well as products that take environmental conservation into consideration have been developed to match customers' applications.

We also offer customization for specific conditions (usage environment, space) that are difficult to meet with standard ones. From one-off prototypes to mass production, we support engineers involved in research and development on manufacturing technology.

Examples of appplication



Robot Cable standardized

Robot cables provide enhanced durability and stable performance against bending that occurs in moving parts with frequent repetitive motion, such as industrial robots and machine tools.

Every TEAC's ultra-compact load cells employ robot cables, together with the TEDS function, contribute to factory automation and labor savings.

* Customized proposals that match your application and environment are available. Please contact our sales representatives for detail.

As shown above, fix the core wire so that it does not move, bend it 90 degrees to the left or right, and confirm that no wire breakage occurs.

TEDS-compatible

The TEDS (Transducer Electronic Data Sheet) system is a generic term for a description format standardized by IEEE that electronically reads and writes sensor's specific characteristic, which is recorded in an EEPROM built into the sensor and can be read and written electronically.

Model name, serial number, sensitivity (output value against physical quantity) and other calibration factors are digitized and recorded in the memory built into the load cell body. Sensor's specific values can be set electronically, automating the reading of recorded information and equivalent input calibration, eliminating human error in setting and reducing the burden of load cell replacement.

Load Cell Embedded Equipment　　TEDS-compatible digital indicators

Sending individual specific values of each load cell indicated in the unit's Data Sheet

TEAC has been strongly promoting TEDS (IEEE 1451.4 Transducer Electronic Data Sheet) compliance for load cells and load cell indicators.We are the first Japanese manufacturer that obtained a "Manufacturer ID", making our load cells and indicators TEDS-compatible.

Related Products (Indicators and Signal Conditioners)

New EtherNet/IP™ model CC-Link model

92 x 92mm Panel opening size

92 x 45mm Panel opening size

New

Attaches to common DIN rails

Weighs only 320g (incl. batteries)

Color Graphics Digital Indicator

TD-9000T

RS-485 model
EtherNet/IP™ model
CC-Link model

High performance model with large LCD

Supporting two inputs, force sensor and displacement sensor, various comparison judgments function, and direct saving of waveform data onto large capacity internal memory.

TEDS | RoHS | 4,3" LCD
Touch Panel | 5,000 time/sec. | 24-bit
Load/Vary Inputs | Waveform | Static Strain
Interrupt Check | High/Low Limit Compare | Judgements
D/A OUT | RS-232C | Bilingual

Digital Indicator

TD-700T

Standard model
CC-Link model
RS-485 model

Excellent model with compact and high functionality

Supporting five key functions in one unit, numeric display, graph display, TEDS function, static strain display, and signal conditioner. This small and cost-effective TD-700T achieves equal or even higher performance to upper-class models, with high-visibility color LCD and various hold functions.

TEDS | RoHS | 4,000 time/sec. | 24-bit
Static Strain | Waveform | Bar Meter | D/A OUT
Data Rec | Various Holds | Bilingual | AC/DC Power

Signal Conditioner

TD-SC1

D/A model
RS-485 model

Slim and light-weight signal conditioner

Supporting high-speed sampling of 20,000 times/second, PC-based configuration via USB connection, selectable network, and TEDS calibration function.

TEDS | RoHS | Plug-in
20,000 time/sec. | 24-bit | Static Strain
Bilingual | High/Low Limit Compare | Hold Functions

Portable Digital Indicator

TD-01 Portable

On-site checking tool with versatility

Supporting various functions that equal to embeded systems, in hand-held size, allowing you to take measurements anytime anywhere, according to your purpose.

TEDS | RoHS | Color LCD
Waveform | Bar Meter | High/Low Limit Compare
Data Rec | Static Strain | Interrupt Check
D/A OUT | Dual I/O | 24-bit
AA Batteries | Long Time Operation | Bilingual

* Under planning

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