TEAC

Tension/Compression Load Cell

TU-QR(T)□□N/KN-G3

Features

Body Material

Compact & Light Weight Stainless Steel

Tension/Compression Load Cell

Applications

Ideal for use by incorporating it into testing machines and production line equipment.

Mounting Method

Female M3 scrwes on both ends

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

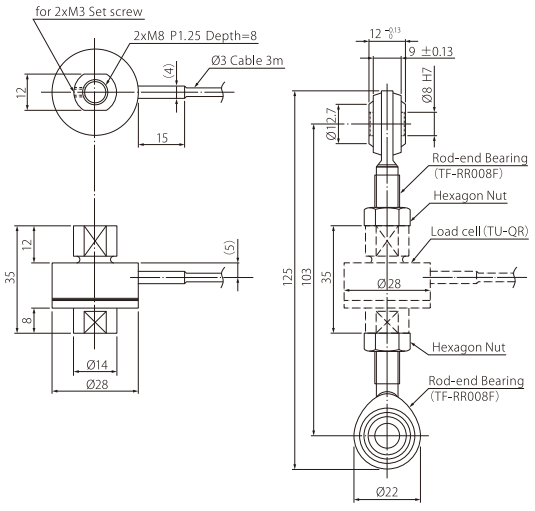
With the TD series indicators, equivalent input calibration, likely to forget in manual setting, can be performed automatically and help prevetion.

(See the reverse page for detail on TEDS)

Specifications

Type	Tension/Compression Load Cell					
Model	**TU-QR(T)□□N/KN-G3** TEDS (Embeded in the body) RoHS (10 substances)					
Rated Capacity (R.C.)	**50N**	**100N**	**200N**	**500N**	**1kN**	**2kN**
Natural Frequency	2.7kHz	4.3kHz	5.8kHz	7.3kHz	10.0kHz	14.0kHz
Weight (Approx.)	66.9g	67.6g	68.2g	69g	70g	71.9g
Safe overload rating	150% R.C.					
Rated Output (R.O.)	0.5mV/V or higher					
Linearity	0.5% R.O.					
Hysterisis	0.5% R.O.					
Repeatability	0.3% R.O.					
Safe Excitation Voltage	5V					
Input Terminal Resistance	350Ω ±20Ω					
Output Terminal Resistance	350Ω ±20Ω					
Insulation Resistance	1000MΩ or more (50V DC)					
Compensated Temperature Range	0 to 70°C					
Permissible Temperature Range	−10 to 70°C					
Temperature Effect on Zero Balance	0.5% R.O./10°C					
Temperature Effect on Output	0.5% R.C. / 10°C					
Cable	Φ3, 6-core shieldeed, 3m direct connection robot cable with bare lead wires					
Mounting Method	M3 Screw					
Body Material	Stainless Steel					

Dimensional drawings (Units: mm)



Rod-end connection

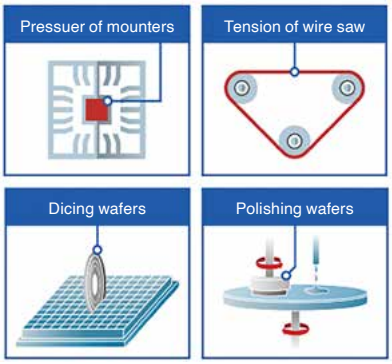
Advantages of the TEAC Load Cells

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

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

c UL us CE CC-Link EtherNet/IP

92 x 45mm
Panel opening size

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

c UL us CE CC-Link

New

Attaches to common DIN rails

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

c UL us CE UK CA
CC-Link* EtherNet/IP*

* Under planning

Weighs only 320g (incl. batteries)

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

CE

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