

Features

# Compact & High Output

Body Material

# Stainless Steel

## Compression Load Cell



### Advantages

Supports high loads despite its small size

### Applications

Press pressure, Load distribution

### 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 prevention.

(See the reverse page for detail on TEDS)

### Specifications

Type	Compression Load Cell		
Model	<b>TC-BSR(T)□□KN-G3</b>		
	<b>TEDS</b> (Embedded in the body)		<b>RoHS</b> (10 substances)
Rated Capacity (R.C.)	<b>10kN</b>	<b>20kN</b>	<b>50kN</b>
Natural Frequency	98kHz	98kHz	46kHz
Weight (Approx.)	21g	21g	-
Safe overload rating	120 % R.C.		
Rated Output (R.O.)	1mV/V ±50%	1.5mV/V ±50%	
Linearity	1% R.O.	2% R.O.	1% R.O.
Hysteresis	1% R.O.		
Repeatability	1% R.O.		
Zero Balance	±10% R.O.		
Safe Excitation Voltage	7V	5V	
Input Terminal Resistance	350Ω ±5%		
Output Terminal Resistance	350Ω ±5%		
Insulation Resistance	1000MΩ or more (DC50V)		
Compensated Temperature Range	0°C to 50°C		
Permissible Temperature Range	-10°C 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	Φ3, 6-core shielded, 3m direct connection robot cable with bare lead wires		
Mounting Method	Bonding, Housing		
Body Material	Stainless Steel		

Dimensional drawings (Units: mm)

**TC-BSR(T)□□ 10kN/20kN-G3**

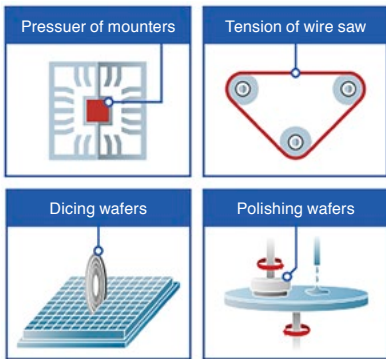
**TC-BSR(T)□□ 50kN-G3**

### 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 application



### 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.

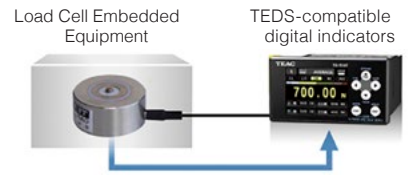


As shown above, fix the core wire so that it does not move, bend it 90 degrees to the left or right, and confirm that no wire breakage occurs.

### 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.



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<sup>™</sup> model  
CC-Link model

92 x 92mm  
Panel opening size

Color Graphics Digital Indicator

#### TD-9000T

RS-485 model  
EtherNet/IP<sup>™</sup> 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

CE US 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

CE US 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

CE US UK 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 embedded 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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