



Features

# 1/2000 of High Precision

## Tension/Compression Load Cell

### Applications

For measurement of test equipment and conveyer tank scale

### Type of Mounting

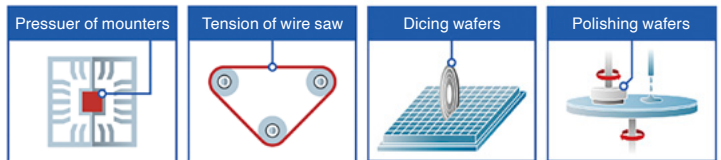
Fix with screws

### 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 application

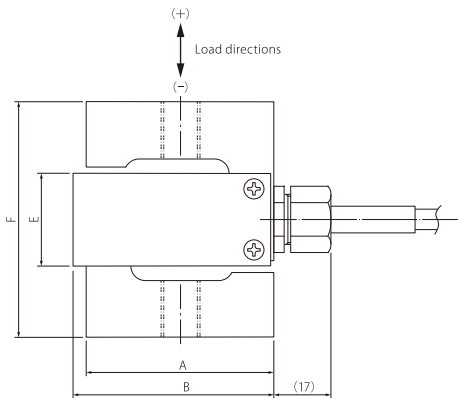
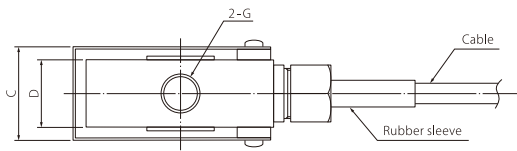


### Specifications

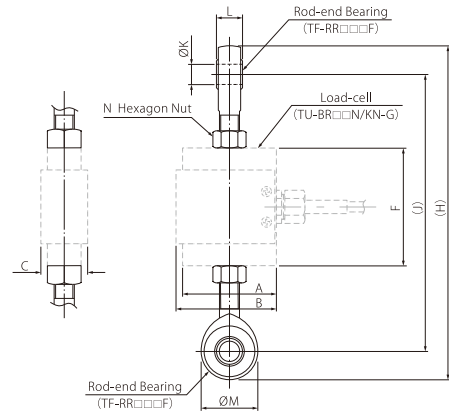
Type	Tension/Compression Load Cell						
Model	<b>TU-BR□□N/KN-G</b>						<b>RoHS</b> (10 substances)
Rated Capacity (R.C.)	<b>200N</b>	<b>500N</b>	<b>1kN</b>	<b>2kN</b>	<b>5kN</b>	<b>10kN</b>	<b>20kN</b>
Natural Frequency	0.6kHz	1.2kHz	1kHz	1.5kHz	2.7kHz	2.3kHz	2.2kHz
Weight (Approx.)	0.3kg	0.3kg	0.3kg	0.45kg	0.5kg	0.5kg	1.6kg
Safe overload rating	150% R.C.						
Rated Output (R.O.)	3mV/V ±1%						
Linearity	0.05% R.O.						
Hysteresis	0.05% R.O.						
Repeatability	0.03% R.O.						
Zero Balance	±10% R.O.						
Safe Excitation Voltage	20V						
Input Terminal Resistance	350Ω ±3.5Ω						
Output Terminal Resistance	350Ω ±5Ω						
Insulation Resistance	1000MΩ or more (DC 50V)						
Compensated Temperature Range	-10°C to 70°C						
Permissible Temperature Range	-30°C to 80°C						
Temperature Effect on Zero Balance	0.05% R.O./10°C						
Temperature Effect on Output	0.05% R.C. / 10°C						
Cable	Φ6mm, 4-core shield cable, 5m direct connection with bare lead wires						
Mounting Method	Screw holes						
Body Material	Aluminum			Steel			

Dimensional drawings (Units: mm)

Polarity: Tension (+), Compression (-)



**Rod-end Bearing**



Model	Capacity	A	B	C	D	E	F	G	
TU-BR200N-G	200N	56	60	28	20	28	60	M6 x 1	Depth 12
TU-BR500N-G	500N	56	60	28	20	28	60	M6 x 1	Depth 12
TU-BR1KN-G	1kN	56	60	28	20	28	60	M6 x 1	Depth 12
TU-BR2KN-G	2kN	56	60	28	20	28	70	M12 x 1.75	Depth 16
TU-BR5KN-G	5kN	56	60	28	20	28	70	M12 x 1.75	Depth 16
TU-BR10KN-G	10kN	56	60	28	20	28	70	M12 x 1.75	Depth 16
TU-BR20KN-G	20kN	70	74	33	25	34	90	M16 x 2	Depth 20

Loadcell	Rod-end Bearing	H	J	ØK	L	ØM	N
TU-BR200N-G	TF-RR006F	126	108	6H7	9	18	M6 x 1.0
TU-BR500N-G							
TU-BR1KN-G							
TU-BR2KN-G	TF-RR012F	199	165	12H7	16	34	M12 x 1.75
TU-BR5KN-G							
TU-BR10KN-G							
TU-BR20KN-G	TF-RR016F	229	190	16H7	19	39	M16 x 2.0

**Related Products (Indicators and Signal Conditioners)**



**New**  
PNP type Available

92 x 92mm  
Panel opening size

**Color Graphics Digital Indicator TD-900T**

**NPN type** (Standard) **PNP type**  
Standard model Standard model  
EtherNet/IP™ model EtherNet/IP™ model  
CC-Link 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

TEAC 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

TEAC US CE CC-Link



Attaches to common DIN rails

**Signal Conditioner TD-SC1**

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

TEAC US CE UK CC-Link EtherNet/IP



Weights 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

TEAC

EtherNet/IP is a trademark of ODVA, Inc. Other company names, product names and logos in this document are the trademarks or registered trademarks of their respective holders.

**TEAC CORPORATION**

1-47 Ochiai, Tama-shi, Tokyo  
206-8530, Japan

E-mail: cs\_ipd@teac.jp  
Web: https://loadcell.jp/en/

**TEAC America, Inc.,**

E-mail: datarecorder@teac.com

**TEAC EUROPE GmbH.**

E-mail: info@teac.eu

**TEAC SALES & TRADING (ShenZhen) CO., LTD.**

E-mail: teacservice3@teac.com.cn