

Specifications		
Input Signal Range	Strain gauge type transducer $\pm 3.2\text{mV/V}$	
Bridge Voltage	DC 10V or 2.5V $\pm 10\%$ (Max Current: 30mA, remote sense can be used)	
Calibration	Range	0.3 to 3.2mV/V
	Accuracy	0.1%F.S. (Sensitivity 0.5mV/V or more)
	Method	Actual load calibration, Equivalent load calibration, TEDS calibration
Accuracy	Zero Balancing Range	$\pm 2.0\text{mV/V}$
	Non-linearity	0.01%F.S. + 1Digit (@ 1mV/V input)
	Zero drift	0.5 $\mu\text{V/deg C}$ (Input equivalent value)
	Gain drift	$\pm 0.005\%$ F.S./ deg C
Analog to Digital Converting Rate	4000 times/sec, 20000 times/sec (when hold mode selected), 24 bits A/D converter	
D/A output	Voltage Output 0 ± 1 to 10V 1V step or Current Output 4 to 20 mA 4000 Hz	
TEDS Function	IEEE1451.4 Class2 Mix mode interface	
Display	Display Unit	2.4 inch. TFT color LCD
	Display Range	-99999 to 99999
	Display Times	Select 4, 6, 10, 20 times/sec
	Display Mode	Select Normal, Bar meter, Large Indicator Value, Static Strain, Graph
	Resolutions	1/99999
Language	Language	Japanese / English
	Hold function (20000 times/ sec)	Sample, Peak, Bottom, Peak to Peak, Peak and Bottom, Average *Zone Definition Available except Sample Hold
Comparison function	4 signals	High-High Limit(HH), High Limit(HI), Low Limit(LO), Low-Low Limit(LL)
	Range	-99999 to 99999
	Mode	Select Always, Stable, Hold, No Compare
	Compare Speed	4000 times / second
Digital Filter	Low Pass Filter / Select	3(-6db/oct), 10, 30, 100, 300, 1000 Hz (-12db/oct), None
	Moving Average	(16/32/64/128/256/512/1024/2048)
Digital Zero	Digital Zero	Set to Zero on specified point
	Zero Tracking	Suppressing to Zero by specifying time duration and level range
Other Functions	HH, LL enable/disable, Set near Zero, Motion Detect, Digital Offset, Minimum Scale, Calibration Value Lock, Setting Lock, Static Strain Mode, Comp. Output Control, Comp. Output Pattern, Key Lock, Hysteresis, Select Data Output, D/A Converter, Remote Sense	
	Control I/O (isolated from main unit circuits using a photo coupler)	Input Signal: Hold, Digital Zero, Judge, Clear, setting memory selection 1 or 2 Signal Type: Contact or Open Collector Output Signal: S1(HH), S2(HI), S3(LO), S4(LL), OK(OK) Signal Type: Open Collector Output
	Power	AC100V 12W AC adapter (Included as a standard accessory)
	Environment	Operating Temp.: 0 to 40 deg C Storage Temp.: -20 to 60 deg C Operating Humidity: 85%RH (No condensation)
Dimension (WxHxD)	96W x 52.5H x 131.7D [mm] (without protrusions)	
Weight	About 300 g	
Applicable Standard	Safety: CE marking, UL61010-1 EMC: VCCI(Class A), EN61326 (Class A), Manual: Japanese, English, Chinese (These can be downloaded from http://loadcell.jp/en/)	

Included accessories

- Panel attachment fixtures
- DIN rail attachment adapter 1 pc.
- Input and output connector plugs B2L 3.50/08/180F SN BK BX 1 pc.
- B2L 3.50/16/180F SN BK BX 1 pc.
- Micro screw driver (flat-blade) 1 pc.
- Operation manual(A5) 1 pc.
- AC adapter 1 pc.



Panel attachment fixtures

DIN rail attachment fixtures

Options*

Several options are available

- TD-700T case
- CS-701 (For One Input)
- CS-703 (For Three Input)
- CC-Link Interface TD-700T (CCL)
- RS-485 Interface TD-700T(485)



TD-700T case



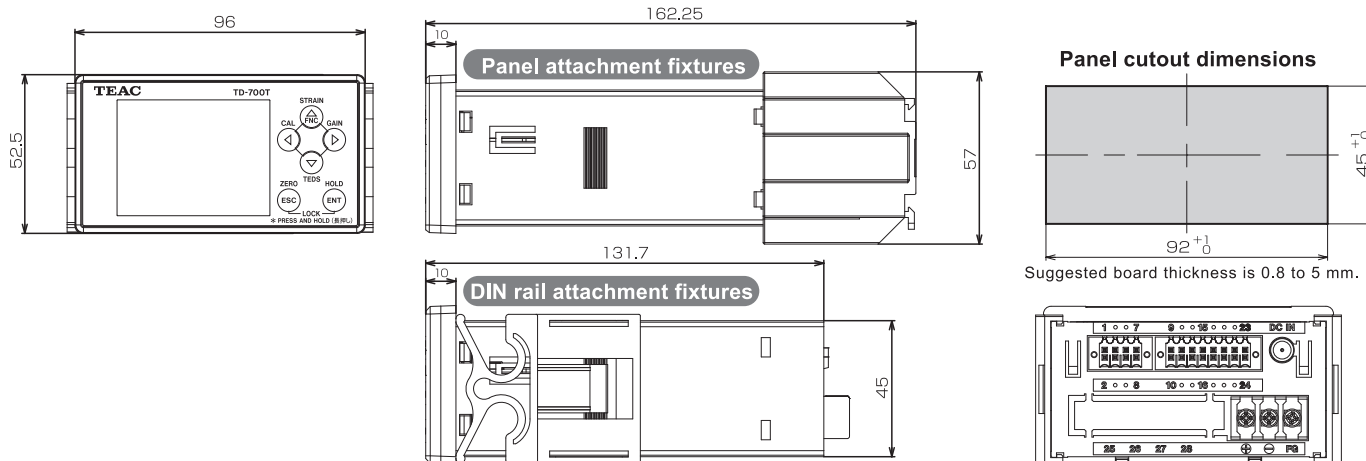
Rear panel of case (One input)

* For details, please contact TEAC sales or distributors

Pin Assignment

PIN	ASSIGN	PIN	ASSIGN	PIN	ASSIGN
1	TEDS	9	V-OUT	17	SEL2
2	GND	10	I-OUT	18	COM
3	+EXC	11	COM	19	LL
4	-SIG	12	CLEAR	20	LO
5	-EXC	13	JUDGE	21	HH
6	+SIG	14	HOLD	22	HI
7	SHIELD	15	D/Z	23	OK
8	NC	16	SEL1	24	COM

External Drawing

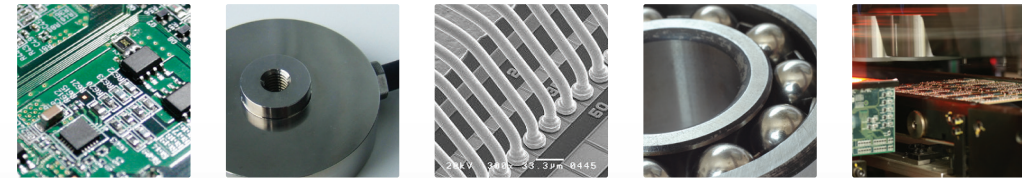


<http://loadcell.jp/en/>

TEAC AMERICA, INC.

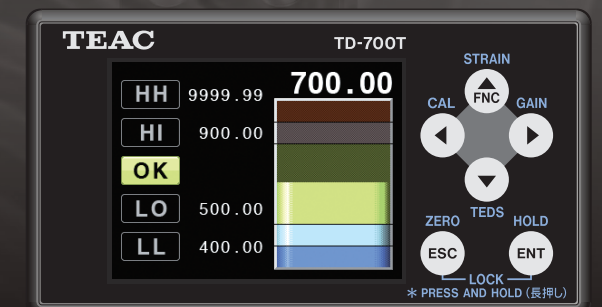
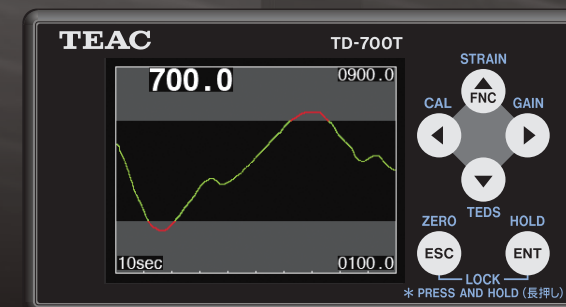
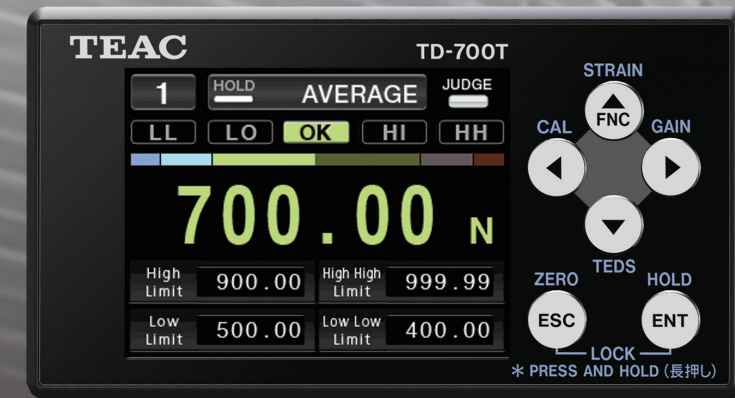
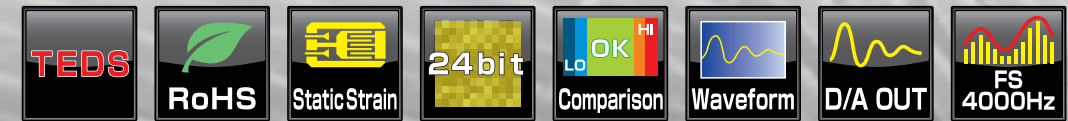
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Features and specifications are subject to change without notice.
Precaution : To ensure safe handling and operation, read the Instruction Manual before use.



Optionally supports interfaces for easy connection with production lines and other systems: **CC-Link** **RS-485**

High-performance in compact design
Excellent cost performance
High speed processing at 4000 times / sec
(20,000 times / sec at hold)



<http://loadcell.jp/en/>

English manual and Chinese manual are available for download from TEAC Load-cell Products Web site



TEAC's TD-700T was developed to measure and display load, pressure, and torque measurements accurately and graphically. The TD-700T brings features to a 1/8 DIN size indicator that are normally found in larger HMI displays.



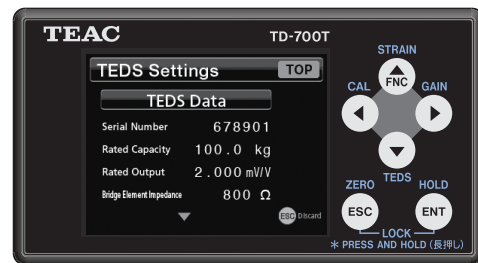
Feature

High-performance color graphic LCD screen

Vivid display gives immediate process status. Each alarm intuitively and independently advises process condition.

Plug-and-Play (TEDS)

The TD-700T Supports IEEE 1451.4 TEDS. By utilizing TEAC load cells, auto-calibration is performed which eliminates complicated calibration and prevent human error.



TEDS information can be confirmed.

TEAC has various TEDS load cells for Plug-and-Play operation



▼ For more information
<http://loadcell.jp/en/>

Remote Sense Function

Compensates for possible voltage changes due to temperature fluctuations and/or extended cable lengths without the loss of accuracy.

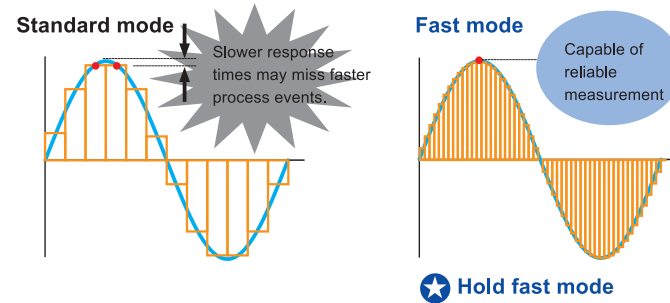


Any changes due to temperature or wire resistance fluctuations

Compensated by the TD-700T.

4000 times / second (★ 20000 times / sec at hold) high-speed processing

Sampling and response times of 4000 per second. You can realize higher measurement accuracy and reliability with faster sampling of 20,000 cycles/s in Fast mode.



Zero Position Bar Graph Settings

Zero position for the bar graph can be set automatically depending upon the application.

Positive & negative value sample hold

TD-700T can sample, hold and average both positive and negative values. It can be used in measurements using dual pole devices such as torque sensors.

Comparison function

It is possible to set up to 4 values (HHI, HI, LO and LLO) to compare with the input signal. The definition of those values is programmable (i.e. 3 upper limits and 1 lower limit). This provides users with a wide variety of alarm applications, and helps avoid confusion and/or problems monitoring your process.

Static strain display

Allows the measure static strain. This function makes it easier to check load-cells for deterioration and plastic deformation.

User friendly warnings

TD-700T detects overloading, wrong connection, invalid parameters and improper adjustments and show warnings on the front LCD.

Example of Warning



Analog voltage /current output (isolated)

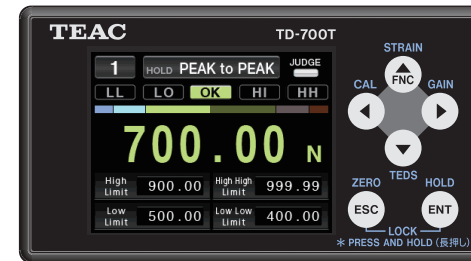
TD-700T can also be used as a signal conditioner.

4 patterns of memory function

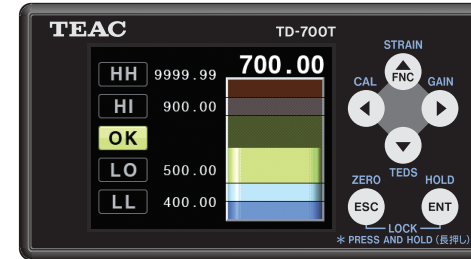
Settings for up to 4 holding modes can be saved. You can switch among those saved.

Examples of information on the display

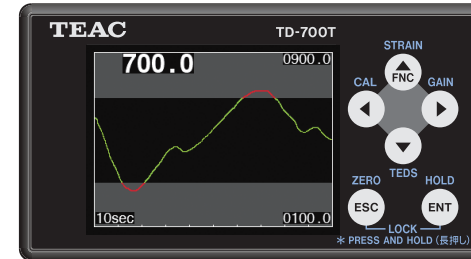
Visual Alarm Modes



Bar Graph



Actual Process Waveform



Static strain



Numbers only



The fast 4Ks/S sampling rate shows the process levels vividly and in real time. The TD-700T shows what happens before, during and after any event. A variety of display modes is available to meet your purpose.

Example of hold functions

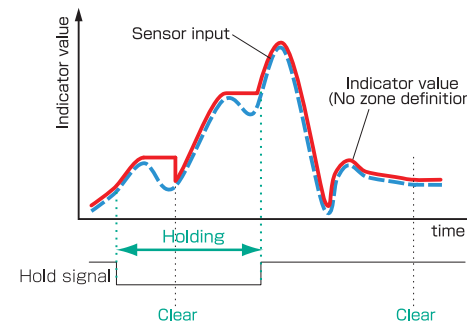
Variety of hold function with block setting

A variety of holding functions can be activated utilizing the front panel controls or external control signals.

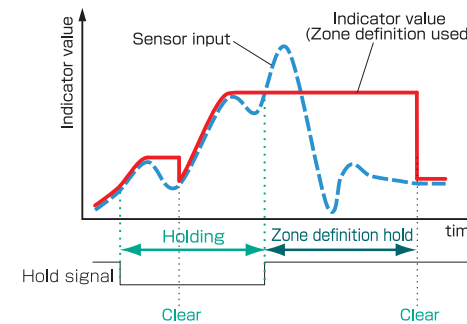
★ Fast sampling mode (20000 times/sec) supported

Hold functions	Zone definition
Sample hold	
Peak hold	<input type="radio"/>
Bottom hold	<input type="radio"/>
Peak-to-peak hold	<input type="radio"/>
Peak-and-bottom hold	<input type="radio"/>
Average hold	<input type="radio"/>

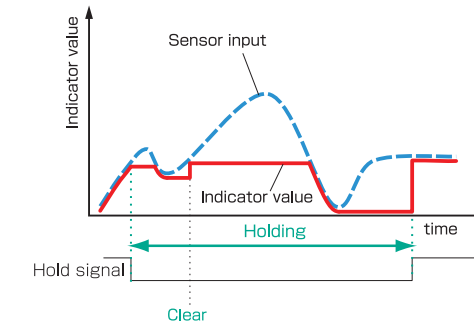
Peak hold No zone definition



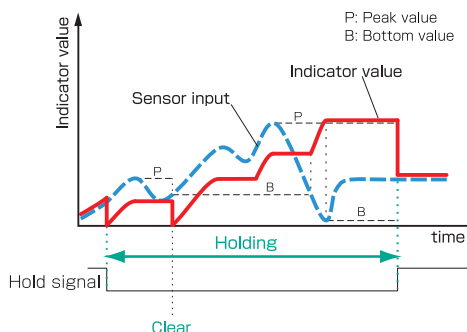
Peak hold Zone definition used



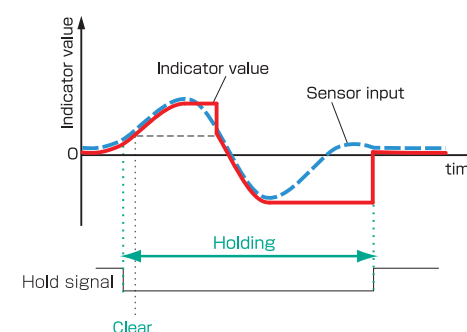
Bottom hold



Peak to peak hold



Peak and bottom hold



Average hold

