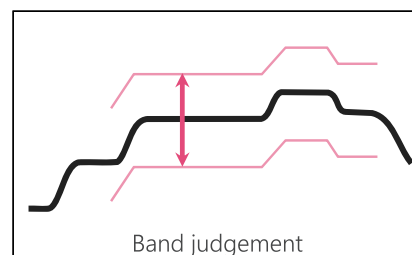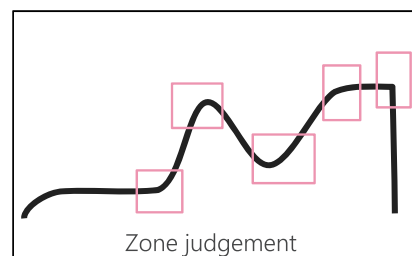# TD-9000T
Color Graphics Digital Indicator

Equipped with a 4.3 inch large LCD screen
on a compact body sticking to the DIN size

Highly functional model that supports two inputs of a load
sensor and a displacement sensor, and has a fulfilling
comparison/determination functions, as well as a large
internal memory capacity enabling direct storage of
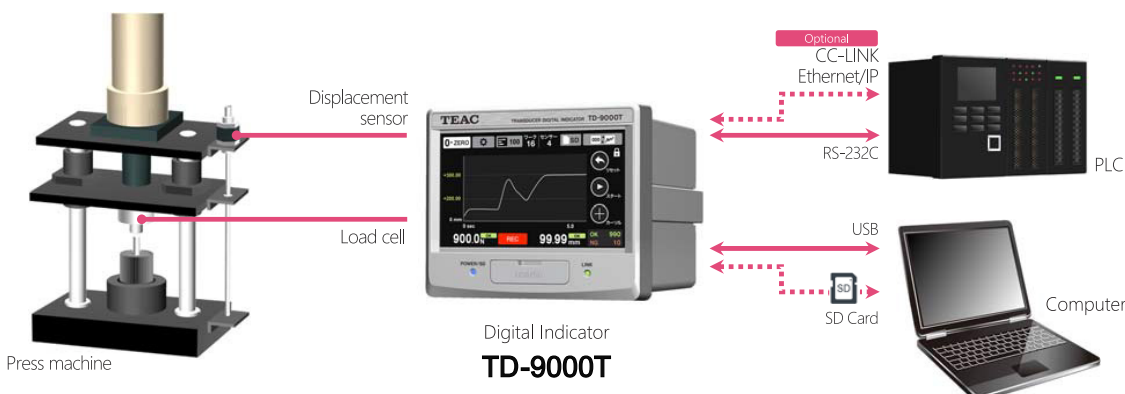waveform data.

FEATURES

- Constant Judge function - Real-time display of waveform in hold mode
- Multiple hold function - Up to 5 judgment zones can be set
- Band judge function - Any band can be set and judged
- Compact size - 92mm x 92mm DIN size (same as conventional machines)
- Adoption of large - size monitor - 4.3 inch touch panel color graphic LCD
- Data recording - SD card recording (CSV format) or up to 100 waveform
  data can be stored in the main unit memory
- Convenient function - Equipped with load cell disconnection detection function
- TEDS standards supported - For the TEDS supported transducers, sensitivity
  calibration is automatic calibration
- Static strain function - Load cell overloading is obvious

What's more...

- Standard equipped with displacement input (voltage, pulse)
- Communication interface: CC-LINK (option), Ethernet/IP (option), RS-232C (standard)
- Standard equipped with D/A output (0 to 10V, 4 to 20mA)
- Display of statistics information
- Multi-language support: Japanese/English/Chinese/Korean
- Compliant with RoHS, CE, UL

Zone judgement

Band judgement

SYSTEM CONFIGURATION

Displacement sensor

Load cell

Press machine

Digital Indicator
TD-9000T

Optional
CC-LINK
Ethernet/IP

RS-232C

PLC

USB

SD Card

Computer

Version | 12.2021

■ SYSTEM CONFIGURATION

Load sensor input   Sensor Input

Sensor input range		Strain gauge sensor -3.2mV/V ~ 3.2mV/V
Zero adjustment range		-3.2mV/V ~ 3.2mV/V
Bridge voltage		2.5V / 5V / 10V (30mA MAX.)
Calibration method		Equivalent Input / TEDS / Actual Load
Accuracy	Linearity	Within 0.01%F.S. ± 1digit (Input ≥1.0 mV/V)
	Zero drift	Within 0.5µV/°C (Input conversion value)
	Gain drift	Within 0.005%F.S./°C (Input ≥1.0 mV/V)
Filter	Low pass	3/10/30/100/300/1000Hz (-6dB/oct)
	Moving average	off / 2 ~ 2048 times
	Auto digital	Only digital value display(constant judgement)
A/D conversion	Sampling rate	5kHz/20kHz switchable
	Resolution	24-bit (binary)
Linearize function		Five-point tracking

Displacement Sensor Input (pulse)

Maximum input freq.	2MHz
Maximum count value	15,000,000
Calibration method	Equivalent Input / Actual Load
Low pass filter	N/A
Moving average filter	OFF / 2 ~ 2048 times
Pulse type	A/B phases, A phase only (RS-422 only)
Voltage output	5V (± 10%), 500mA Max.

Displacement Sensor Input (vlotage)

Input voltage range		± 5.2V
Zero adjustment range		0 ~ 5.2V
Accuracy	Linearity	Within 0.01%F.S. ± 1digit (Input ≥3.3V)
	Zero drift	Within 0.005%F.S./°C
	Gain drift	Within 0.02%F.S./°C
Calibration method		Equivalent Input / Actual Load
Filter	Low pass	None/10/33/100/330Hz (-6dB/oct)
	Moving average	off / 2 ~ 2048 times
A/D conversion	Resolution	24-bit (binary)
Voltage output		12V (± 10%), 250mA Max.

Device settings

Power supply		DC24V (± 10%)
Environment	Temperature	0°C~40°C (Operating)/-20°C~60°C (Storage)
	Humidity	85% RH or less (without condensation)
Dimensions/ Weight		114(W) x 96(H) x 140 (D) [mm] / About 960 [g]
Applicable standards	EMC	EN61326 (Class A)
	Safety	CE, UL61010-1
Display		4.3 inch LCD color resistive touch panel
Display range		-32000 ~ 32000
Language		Japanese/English/Chinese/Korea
Screen		Digital load value, Waveform, Archive data, Setting
Waveform settings	X-axis	Time (200ms ~ 120sec) / Displacement
	Y-axis	Load (STD) / Load and displacement (biaxially)
Comparison waveform	Band judgment	Offset reference band / Designated value band
	Zone judgment	Up to 5 judgment zones can be set by device/external signal
	Comparison judgment	Load: HH / HI / OK / LO / LL
		Displacement: HI / OK / LO
	Hold setting	Constant comparison/Sample/Peak/Bottom/PEAK to PEAK Maximum / minimum / inflection point / average
Measurement work settings	Number of works	16
	Switching	External input signal / manual
	Memory	2,048
D/A converter	Output (Isolated)	Current (4-20mA) Load ≥ 350 ohms Voltage (0.1~10V) set in 1V steps, Load ≥ 2 k ohms
	Conversion rate	Same as A/D converting rate (5 kHz or 20 kHz)
	Resolution	16-bit (binary)
Communication	RS-232C	D-sub 9 pin (rear)
	USB	Micro USB (front)
Control input/output signal (Photocoupler Insulation)	Input signal	Back light On/Off, Touch panel lock, reset, work select, clear, Judgement On/Off, Measurement Start/End, Preset displacement, Digital zero
		Dry contact input, Sync type (NPN)
	Output signal	Alarm, Load cell abnormal, Trigger, waveform judgement (HI/OK/LO), Displacement judgement (HI/OK/LO), Load judgement (HH/HI/OK/LO/LL)
		NPN open collector (Sync type)

■ EXTERNAL DRAWING / UNIT: (MM)

Panel cutout

92 x 92

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