![TML logo]

HANDHELD DATA LOGGER

T-ZACCS 3
TC-37K

- Scanning as fast as 0.1 seconds (in single-channel mode)
- Monitor that displays maximum (MAX) and minimum (MIN) values
- Measurements of strain, DC voltage, thermocouple, platinum resistance temperature detector, resistance, and insulation resistance are possible.
- Since this equipment can also measure insulation resistance, it can check sensors.
- Now supports the "1-gage 2-wire" sensor mode (quarter -bridge, 2-wire)
- 1G4W compatible (one-gauge method four-wire type strain measurement method)
- TEDS compatible

- One-touch connection of loose wires
- Quickly operate key functions via shortcut keys
- Automatic measurement using interval timer
- Compatible with the measurement software "TDS-7130v2"
- Equipped with an SD card slot
- Low power consumption
- Powered by 4 AA size dry-cell batteries, easy to replace in the field
- Multipoint measurement in combination with the CSW-5B switch box
- Can be combined with the two-axis inclinometer adapter

Strain gauge

Strain gauge type transducer

DC voltage

Thermocouple

Platinum resistance temperature detector

CSW-5B for multiple measurement

Tokyo Measuring Instruments Laboratory Co., Ltd.

TC-37K is a compact handheld measuring instrument that fits neatly in one hand. It has a splashproof structure and can be used safely outdoors. The terminal section for connecting a sensor is a one-touch type that allows easy connection of both lead wires and banana plugs, allowing for speedy measurements. It is possible to set the sensor modes, coefficients, and initial values of up to 20 channels and record the measurement data. This makes it easy to organize data even when collecting data while moving around multiple sites. In addition, by using the dedicated CSW-5B switch box, automatic measurement of five points is possible. It is possible to record using an interval timer, data memory, and SD card, and it can also be connected to a PC for control and data transfer. The check functions for resistance and insulation resistance allow it to be used to check strain gauges, transducers, and other devices.

Outer view and Dimensional diagram

Unit : mm
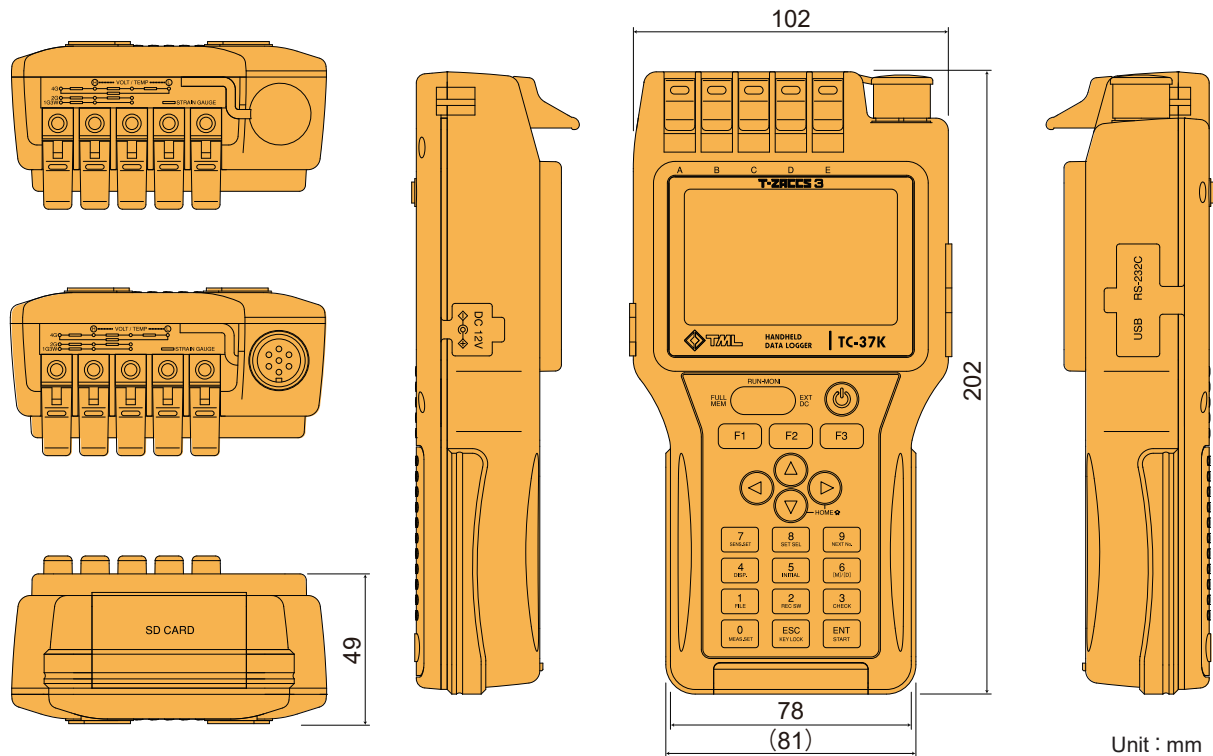
High-brightness LCD, easy

LCD with backlight
Resolution: 255 x 160 dots
Main display content
  Measurement data,
  setting list, graphic
  display of time series
  data, etc.

SD card

Measurement data and configuration settings can be stored on an SD card. Firmware can also be upgraded via the card. Supported card capacity: up to 16 GB.
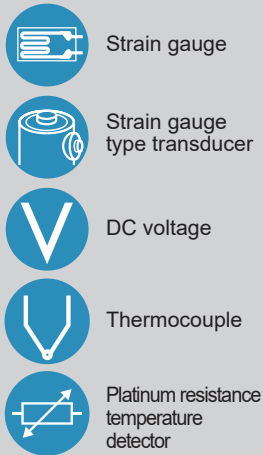
Interface: RS-232C and USB

Interface
Control and data transfer via RS-232C and USB
The USB driver is included in the separately sold Instruction Manual: Interface Edition or the monitoring measurement software Visual LOG Light.
AC adapter (optional) compatible

System Block Diagram

Five types of input sensors

- Strain gauge
- Strain gauge type transducer
- DC voltage
- Thermocouple
- Platinum resistance temperature detector

TC-37K

Input using options

- One-gauge method four-wire type strain measurement method
  Combined with the CR-5810 one-gauge method four-wire type adapter
- TEDS compatible sensor
  Combined with TEDS compatible sensor
- Two-axis inclinometer adapter
  Combined with the adapter for the two-axis inclinometer KB-HC input

Dedicated switch box

- CSW-5B
- CSW-5B-05 (with NDIS one-touch connector)

5-point automatic measurement

CR-655 connection cable (provided with the switch box as standard)

1-point automatic measurement

2-Axis Inclinometer Mode

IA-33 / IA-32 two-axis insertion type inclinometer adapter

2-point

PC

Interface equipped as standard

USB port

RS-232C port

CR-1869 AC adapter (Options)

DPU-S245 external printer (Options)

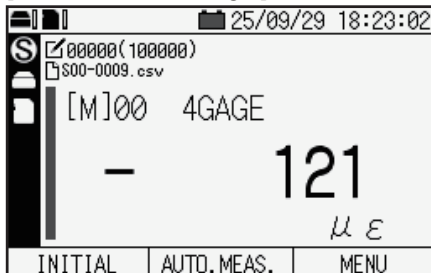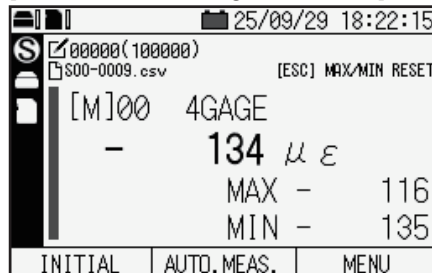RPC-05A remote power controller (Options)

4GB SD card capacity: Max. 16GB
Transfer data to a PC

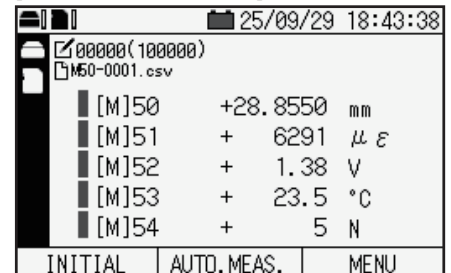Records data

Operation screen examples

[Monitor screen, single]

```
                25/09/29 18:23:02
00000(100000)
S00-0009.csv

 [M]00   4GAGE

   -        121
                      μ ε
INITIAL  AUTO.MEAS.   MENU
```

[Monitor screen, single MAX/MIN]

```
                25/09/29 18:22:15
00000(100000)
S00-0009.csv          [ESC] MAX/MIN RESET

 [M]00   4GAGE

   -     134 μ ε
         MAX  -    116
         MIN  -    135
INITIAL  AUTO.MEAS.   MENU
```

[Monitor screen, multi]

```
                25/09/29 18:43:38
00000(100000)
M50-0001.csv

  [M]50   +28.8550  mm
  [M]51   +   6291  μ ε
  [M]52   +   1.38  V
  [M]53   +   23.5  °C
  [M]54   +      5  N
INITIAL  AUTO.MEAS.   MENU
```

[Waveform monitor]

```
                25/09/29 18:24:18
00000(100000)
S00-0009.csv  [M]00  -3611 μ ε
                            +10000

                            +0

                            -10000
        2.5sec/div (10sec)
INITIAL  AUTO.MEAS.   MENU
```

[Measurement Setting]

```
                25/09/29 18:21:32
 MEAS.SET. : Measurement Setting
Comet          Non    A     B
Simple Measure  ON        OFF
Power Freq.    50Hz      60Hz
Meas.Speed    ◄    AUTO    ►
        [ESC]CANCEL/[ENT]ENTER
```

[Meas.CH.Setting]

```
                25/09/29 18:21:19
 MEAS.SET. : Meas.CH.Setting
1.Sensor Mode Setting
2.Coeff/Unit/Digit Setting
3.RJC Setting

        [ESC]RETURN/[ENT]SELECT
```

[Measurement CH.Mode Selection]

```
                25/09/29 18:21:06
Measurement Mode Selection
1.Single channel mode
2.Multi channel mode
3.Inclinometer 1 axis mode
4.Inclinometer 2 axes mode
        [ESC]CANCEL/[ENT]ENTER
```

[Inclinometer, two-axis mode]

```
                25/09/29 18:20:44
00000(100000)
T00-0000.csv
  [M]00   4GAGE

    -        1 μ ε

  [M]01   4GAGE

    +        0 μ ε
INITIAL  AUTO.MEAS.   MENU
```
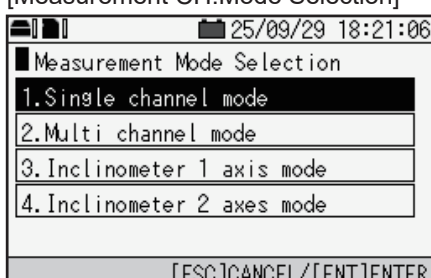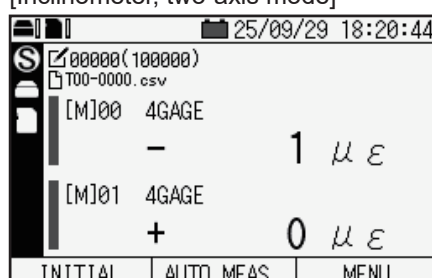
Specifications

Measurement capabilities

Number of measuring points	Single channel mode / inclinometer, one-axis mode	1 point	
		Sensor input	One-touch terminal
			NDIS one-touch connector
	Multichannel mode (When combined with the dedicated switch box)	5 points	
		Target switch box	CSW-5B, CSW-5B-05
	Inclinometer, two-axis mode (When combined with the two-axis insertion type inclinometer adapter)	2 points	
		Target adapter	IA-33, IA-32
Measuring speed	Normal mode	500 ms/point (Monitor), 500 ms/point (Scanning)	
	High-speed mode	100 ms/point (Monitor), 100 ms/point (Scanning)	
Measuring point switching method	Single channel mode	Repeated measurement of 1 channel	
	Multichannel mode	Automatic switching measurement of 5 channels from *0 to *4	
Measuring mode		Initial, direct, measure (For temperature measurement, direct only)	
Simple measure		Coefficient: 1 Unit: Interlocked with sensor mode Decimal point: Interlocked with sensor mode	
Compensation mode		Comet NON, Comet A, Comet B	
Monitor	Display mode	OFF, numerical value, waveform (Y-T), numerical value / maximum value / minimum value	
	Number of display channels	Numerical value display	1, 2, 5 points
		Waveform (Y-T) display	1 point
		Numerical value / maximum value / minimum value display	1, 2, 5 points
Measurement	Manual	Start key switch	
	Automatic	Interval timer	
	Interface	USB, RS-232C	
Channel setting	Coefficient	± (0.00001 to 200000)	
	Unit	48 types including με, mV, °C, kgf, mm	
	Decimal point	Display after the decimal point can be set arbitrarily with 0 to 5 digits	
	Offset	To be written by arbitrarily measurement channel	
	Sensor mode	The type of sensor to be connected is set.	
		Strain	One-gauge method two-wire type, 120 / 240 / 350 Ω, One-gauge method three-wire type, 120 / 240 / 350 Ω, One-gauge method four-wire type, 120 / 240 / 350 Ω, Two-gauge method, Four-gauge method, Four-gauge method constant current, 350 Ω, Four-gauge method, 0-2 V mode
		Voltage	DC 300 mV (V1/1) DC 30 V (V1/100) DC Auto
		Temperature	Thermocouple T, K, J, B, S, R, E, N, Pt100 3 W

* DC Auto can only be used in the single channel mode.
* DC Auto automatically switches between V1/1 and V1/100 depending on the input voltage.

Strain measurement

Applicable wiring method, gauge resistance	One-gauge method two-wire type	120, 240, 350Ω
	One-gauge method three-wire type	120, 240, 350Ω
	One-gauge method four-wire type	120, 240, 350Ω
	Two-gauge method	120 to 1000Ω
	Four-gauge method	120 to 1000Ω
	Four-gauge method constant current	350Ω
	Four-gauge method, 0-2 V mode	120 to 1000Ω
Sensor cable extension range	One-gauge method four-wire type	Cable round-trip resistance: 200 Ω or less
	Four-gauge method constant current, 350 Ω	Cable round-trip resistance: 400 Ω or less
Sensitivity change	Four-gauge method constant current, 350 Ω	+0.1 to -0.5% / Cable round-trip resistance: 100 Ω
Lead wire resistance compensation range Comet B (1G3W)	Gauge resistance 120 Ω: About 100 Ω or less	
	Gauge resistance 240 Ω: About 200 Ω or less	
	Gauge resistance 350 Ω: About 300 Ω or less	
Zero stability	$\pm 1.0 \times 10^{-6}$ strain/°C or less (one-gauge method)	
	$\pm 0.5 \times 10^{-6}$ strain/°C or less (two-gauge method)	
Initial unbalance	$\pm 750 \times 10^{-6}$ strain or less (one-gauge method)	
	$\pm 500 \times 10^{-6}$ strain or less (one-gauge method four-wire type)	
	$\pm 500 \times 10^{-6}$ strain or less (two-gauge method)	

DC voltage measurement

Input impedance	1MΩ or higher
Allowable input voltage between B and D	DC±50V MAX

Thermocouple temperature measurement

Applicable thermocouple	T, K, J ,B, S, R, E, N JIS C1602:2015, IEC 60584-1:2013

Platinum resistance temperature detector measurement

Applicable platinum resistance temperature detector	Pt100 (500 µA constant current three-wire type) JIS C 1604 : 2013, IEC 60751:2008

TEDS function	TEDS	Standard	IEEE 1451.4 Class 2 compatible (Template No. 33)
		Function	Reading and setting of sensor information
Auto power OFF function			When no command is received from the operation or interface for an arbitrary set time, the power is turned OFF automatically. (The auto power off function can be set to ON / OFF.)

* The TEDS function can only be used in the single channel mode.

Check function

Insulation check	**Function**	Checks the insulation resistance between the connected sensor and the test specimen. Applied voltage 2.5 V
	Range	0 to 500MΩ
	Accuracy	± 20% rdg * When powered by batteries
	Resolution	0.1MΩ
	Measuring speed	About 1 s
Resistance check	**Function**	Checks the resistance between the input terminals A and B. 10 µA constant current method
	Range	0 to 30kΩ
	Accuracy	0 to 3kΩ ±(0.5% rdg + 0.2Ω) 3k to 30kΩ ±(0.5% rdg + 2Ω)
	Resolution	0.1Ω(0 to 3kΩ) 1Ω(3k to 30kΩ)
	Measuring speed	About 0.5 s
Variation check		Checks the variation of measurement values.
Lead wire resistance check		Check of the lead wire resistance divided voltage of the one-gauge method three-wire type
Bridge output check		Compensation of the one-gauge method two-wire type and one-gauge method three-wire type. Check of the bridge output voltage without calculation
Check during measurement		Open check
		Thermocouple disconnection check
Display setting list		Initial-in value
		Lead wire resistance divided voltage

Strain measurement

Bridge power supply	DC 1 V 46 ms (50 Hz) * DC 2 V 24 ms (50 Hz) for the four-gauge method 0-2 V mode	
Initial value storage range	±160000×10⁻⁶ strain	
Temperature coefficient of accuracy	±0.002% rdg/°C	
Aging change of accuracy	±0.02% rdg/year	
Measurement range and resolution	Measurement range	Resolution
	± 30000 × 10^{-6} strain * ± 15000 × 10^{-6} strain for the four-gauge method 0-2 V mode	1 × 10^{-6} strain
	± 300000 × 10^{-6} strain * ± 150000 × 10^{-6} strain for the four-gauge method 0-2 V mode	10 × 10^{-6} strain
Accuracy (at 23°C ± 5°C) (Excluding the one-gauge method four-wire type)	±(0.08% rdg+1digit)	
Accuracy (at 23°C ± 5°C) (One-gauge method four-wire type)	±(0.28% rdg+1digit)	

Constant current strain measurement (four-gauge method only)

Bridge power supply	DC2.86 mA 46 ms(50Hz)	
Bridge resistance	350Ω	
Initial value storage range	±160000×10^{-6} strain	
Temperature coefficient of accuracy	±0.002% rdg/°C	
Aging change of accuracy	±0.02% rdg/year	
Measurement range and resolution	Measurement range	Resolution
	± 30000×10^{-6} strain	1×10^{-6} strain
	±300000×10^{-6} strain	10×10^{-6} strain
Accuracy (at 23°C ± 5°C)	±(0.08% rdg+1digit)	

DC voltage measurement

Initial value storage range		
V1/1	±160.000mV	
V1/100	±16.0000V	
Temperature coefficient of accuracy	±0.0024% rdg/°C	
Aging change of accuracy	±0.024% rdg/year	
Measurement range and resolution		Measurement range	Resolution
	V1/1	± 30.000mV	0.001mV
		±300.000mV	0.010mV
	V1/100	± 3.0000V	0.0001V
		±30.0000V	0.0010V
Accuracy (at 23°C ± 5°C)	**V1/1**	±(0.08% rdg+3digit)	
	V1/100	±(0.08% rdg+2digit)	

* DC Auto can only be used in the single channel mode.
* DC Auto automatically switches between V1/1 and V1/100 depending on the input voltage.

Thermocouple temperature measurement (JIS C 1602:2015, IEC 60584-1:2013)

Applicable thermocouple			T, K, J, B, S, R, E, N	
Linearization			**Digital calculation**	
Type	**Measurement range**	**Resolution**	**Accuracy (at 23°C ± 5°C)**	
			(External reference junction)	**(Internal reference junction)**
T	- 250 to - 200C° - 200 to - 100C° - 100 to+ 400C°	0.1C° 0.1C° 0.1C°	±(0.38%rdg+0.6C°) ±(0.15%rdg+0.2C°) ±(0.10%rdg+0.2C°)	±(0.38%rdg+3.9C°) ±(0.15%rdg+1.4C°) ±(0.10%rdg+0.8C°)
K	- 210 to - 160C° - 160 to 0C° 0 to+ 960C° + 960 to+1370C°	0.1C° 0.1C° 0.1C° 0.1C°	±(0.19%rdg+0.3C°) ±(0.12%rdg+0.2C°) ±(0.08%rdg+0.1C°) ±(0.10%rdg+0.9C°)	±(0.19%rdg+1.6C°) ±(0.12%rdg+1.0C°) ±(0.08%rdg+0.5C°) ±(0.10%rdg+1.4C°)
J	- 200 to - 160C° - 160 to 0C° 0 to+ 700C° + 700 to+1200C°	0.1C° 0.1C° 0.1C° 0.1C°	±(0.16%rdg+0.2C°) ±(0.12%rdg+0.1C°) ±(0.08%rdg+0.1C°) ±(0.08%rdg+0.6C°)	±(0.16%rdg+1.2C°) ±(0.12%rdg+0.8C°) ±(0.08%rdg+0.5C°) ±(0.08%rdg+0.9C°)
B	+ 200 to+ 280C° + 280 to+ 800C° + 800 to+1760C°	0.5 to 0.4C° 0.3 to 0.1C° 0.1C°	±(0.04%rdg+4.0C°) ±(0.04%rdg+1.2C°) ±(0.05%rdg+0.4C°)	±(0.04%rdg+4.0C°) ±(0.04%rdg+1.2C°) ±(0.05%rdg+0.4C°)
S	- 10 to+ 200C° + 200 to+1760C°	0.1C° 0.1C°	±(0.09%rdg+0.6C°) ±(0.07%rdg+0.4C°)	±(0.09%rdg+1.2C°) ±(0.07%rdg+0.7C°)
R	- 10 to+ 150C° + 150 to+1760C°	0.1C° 0.1C°	±(0.09%rdg+0.7C°) ±(0.07%rdg+0.4C°)	±(0.09%rdg+1.2C°) ±(0.07%rdg+0.7C°)
E	- 210 to+ 550C° + 550 to+1000C°	0.1C° 0.1C°	±(0.17%rdg+0.2C°) ±(0.09%rdg+0.4C°)	±(0.17%rdg+1.4C°) ±(0.09%rdg+0.8C°)
N	- 200 to 0C° 0 to+1090C° +1090 to+ 1300C°	0.1C° 0.1C° 0.1C°	±(0.18%rdg+0.4C°) ±(0.08%rdg+0.2C°) ±(0.08%rdg+0.9C°)	±(0.18%rdg+1.6C°) ±(0.08%rdg+0.6C°) ±(0.08%rdg+1.2C°)

* The accuracy of the sensor is not included, and thermocouple B does not use the reference junction.

Specifications

Platinum resistance temperature detector temperature measurement (JIS C 1604:2013, IEC 60751:2008 Pt100)

Applicable resistance temperature detector	Pt100
Measurement Method	3-wire type (Pt3W)
Linearization	Digital calculation
Temperature coefficient of accuracy	± 0.0020% rdg/°C
Aging change of accuracy	± 0.05% rdg/year
Measurement range	-200 to +850°C
Resolution	0.1°C
Accuracy (at 23°C ± 5°C)	± (0.08% rdg + 0.3°C)

Interval timer

Function		Measurement at the set time interval and time
Table setting	Time interval	Hour / minute / second can be set for each step up to 99 hours, 59 minutes and 59 seconds. Or 0.5-, 0.2-, or 0.1-second interval
	Real time start	Start time (day / hour / minute / second) can be set for each step.
	Number of starts	Up to 99 times per step or infinite
	Number of steps	Programmable up to 10 steps
	GOTO step	Program loop possible to one of the previous steps
Sleep function		Turns the power ON/OFF automatically when the interval is 1 minute or longer.

Time

Setting	Year, month, day, hour, minute, second
Accuracy	Daily error: ±1 sec (at 23°C ± 5°C)
Retention	About 20 days (with a full charge)

Display / operation

Display unit	LCD panel	3.0-inch semi-transparent monochrome STN LED backlight
	Resolution	255 x 160 dots
	Point defect	10 dots or less (excluding aging deterioration)
Operation		POWER key, Cross key, ESC, ENT 0-9, F1, F2, F3

Recording media

Internal memory	Function	Recording / reproduction of measurement data Saving of setting file
	Recording format	CSV format TDS format Data memory function (up to 100,000 data)
	Capacity	512 MB
SD card	Function	Recording / reproduction / copying of measurement data Saving / copying of setting file
	Physical format	FAT32
	Recording format	CSV format TDS format
	Capacity	512 MB to 16 GB (Designated by us)

Interface

USB	USB 2.0 protocol compatible USB Type-C receptacle General-purpose command compatible (various settings, measurement, data collection)
RS-232C	RS-232C compliant Baud rate 9600, 19200, 115200 bps General-purpose command compatible (various settings, measurement, data collection)

Power supply

Power supply	AA size alkaline dry-cell battery x 4 Dedicated AC adapter (CR-1869) or external power input DC 9-18 V Can be powered from USB bus power
Continuous use time	When using alkaline dry-cell batteries: About 10 hrs (When a 350 Ω bridge is connected for strain measurement)

Environment

Operating temperature / humidity range	-10ºC to +50°C 85% RH or less (No condensation)

Others

Outside dimension	102 (W) ×49 (H) ×202 (D) mm (Excluding protrusions)
Mass	About 750 g
Vibration tolerance	29.4 m/s^2 (50 Hz 0.6 mmp-p)
Shock resistance	49 m/s^2
Splash proofness	IP-54 (with connector cap attached)

Standard accessories

Instruction Manual (CD) 1
AA size alkaline dry-cell battery 4
Shoulder belt 1
Accessory box 1
Warranty certificate 1

Options (Related Products)

SD card (512MB, 4GB, 16GB)
AC Adapter (CR-1869, [For China] (CR-1869-C))
RS-232C cable (CR-5532 / D-sub 9P–10P (Compact Type, Crossed) Cable – 1.5 m)
USB cable (CR-6189 / Type C-A)
External printer (DPU-S245 (RS-232C Interface))
Printer cable (CR-4511 / HRS 8P–10P (Compact Type, Straight) Cable – 0.5 m)
Remote power controller (RPC-05A)
Dedicated switch box (CSW-5B, CSW-5B-05)
Switch box connection cable (CR-655)
Two-axis insertion type inclinometer adapter (IA-33, IA-32)
DC Power Cable (CR-062)

Options (Related Products)

CR-5810
one-gauge method four-wire type dedicated adapter

With One-gauge method four-wire type strain gauge modular plug
(One-touch connection type)

DPU-S245 external printer

The measurement data of the TC-37K / -32K is printed out. The TP-S245L-1 recording paper (optional) is used.

CR-4511 printer cable
Dsub9P- 10P (small)
Straight 0.5 m
(Dedicated for the TC-37K / -32K)

IA-33 / IA-32
two-axis insertion type inclinometer adapter

The IA-33 is a measurement adapter for a two-axis insertion type inclinometer that can be easily attached to the NDIS connector part of the TC-37K / -32K and can be mounted with two screws.

The IA-32 is a measurement adapter for a stationary two-axis insertion type inclinometer that connects to the TC-37K / -32K with a dedicated cable.

When the measurement mode of the TC-37K / -32K is set to a two-axis insertion type inclinometer, the X- and Y-axes can be monitored at the same time.

By using the separately sold IMP-7210 insertion type inclinometer management software, it is possible to obtain the section displacement and cumulative displacement at each depth from the accumulated measurement data to output graphs of comparison chart / distribution chart and data list.

Specifications

Applicable measuring instrument	TC-37K / -32K
Number of measuring points	2 points
Measurement accuracy	Equivalent to TC-37K / -32K
Power supply	Supply from TC-37K / -32K, DC 5 V, 100 mA or less
Operating temperature / humidity range	-10 to +50C°　85% or less (No condensation)
Outside dimension	IA-33: 95 (W) × 41 (H) × 50 (D) mm IA-32: 95 (W) × 42 (H) × 50 (D) mm (Excluding protrusions)
Mass	Approx. 300 g

RPC-05A remote power controller

CR-152M battery connection cable

External battery

BATT

CR-5353 RS-232C cable

CR-5532 RS-232C cable
This is a D-sub 9P-10P (small) cross 1.5 m cable to be used to connect to a PC.

CR-6189 USB cable
Type C-A

CR-1869 AC adapter
This equipment is connected to AC 100 V to supply the power.

SD card
Supported card capacity: 512 MB, 4 GB, 16 GB (designated by us)

4 GB

Data Logger use static measurement software TDS-7130v2

This is a static strain measurement software for Windows.
Taking full advantage of multi-channel automatic measurement, it provides powerful visual representation through multiple graphs.
You can place several graphs, numerical monitors, labels, and images on a single graph sheet, making it highly effective for creating reports that incorporate measurement data and graphical results.
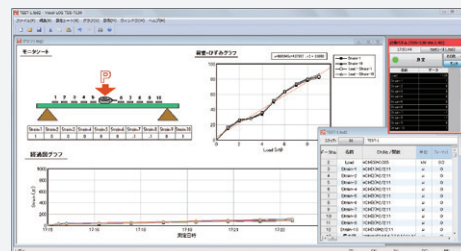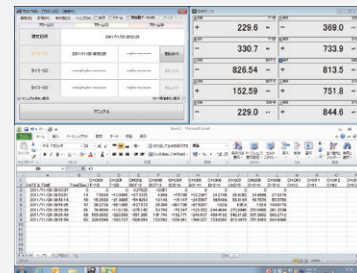
Monitoring measurement software Visual LOG Light TDS-700L

Visual LOG® Light is dedicated measurement software designed exclusively for our data loggers.
It supports online measurement with three interval timer channels as well as manual measurement.
Depending on the interface and measurement setup, the TDS-700L model can be directly connected to a PC.

Insertion-type inclinometer management software IMP-7210

By using the insertion-type inclinometer management software IMP-7210, displacement data stored from measurements can be processed to calculate sectional displacement and cumulative displacement at each depth. The software can output comparative charts, distribution graphs, and tabulated data listings.
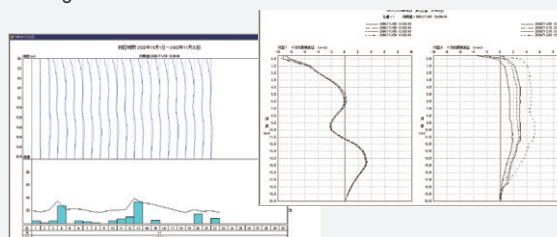
Datamail Management Software TDS-Mail

Measurement data obtained through interval timers and other methods are transmitted as data mails using a data mail converter.
This software receives the data mails, records the measurement data, and performs alarm monitoring.
It enables easy remote monitoring without the need to build a large-scale server system.

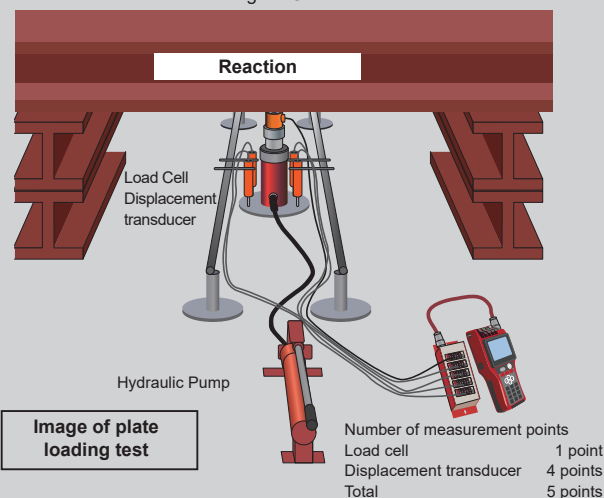### Data Mail Converter DMA-ESL
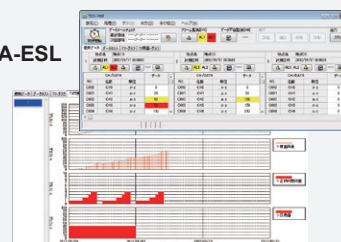
Checking of various sensors

The one-touch type terminal board of the TC-37K enables speedy connection and disconnection of lead wires. It is very convenient for checking zero balance, resistance and insulation resistance of strain gauges and strain gauge type transducers installed on the site. Since the TC-37K can measure DC voltage, thermocouple and Pt RTD in addition to strain, it is also capable of checking various sensors.
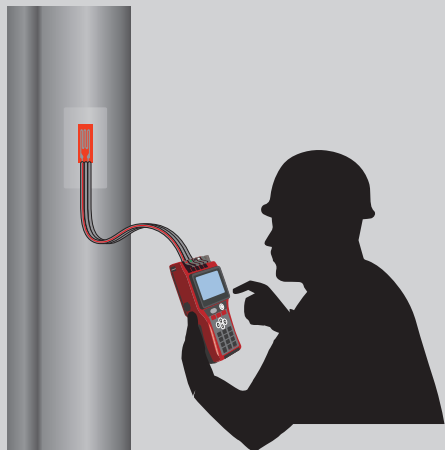

Manual measurement

Data acquisition is possible by connecting each one sensor to the TC-37K or each five sensors to the switching box CSW-5B. It is suited to use in small-scale test having one to five measurement points, or observation during and after construction where measurement points are scattered in two or more locations. The TC-37K is also applicable to on-line measurement using a PC.

Reaction

Load Cell
Displacement transducer

Hydraulic Pump

Image of plate loading test

Number of measurement points
Load cell   1 point
Displacement transducer   4 points
Total   5 points

Long-term unmanned measurement

The TC-37K is equipped with sleep function, which turns off the main power automatically when not measuring during interval timer measurement for the purpose of saving consumption of batteries. Long-term observation during and after construction becomes possible by periodically collecting the data and replacing the batteries.
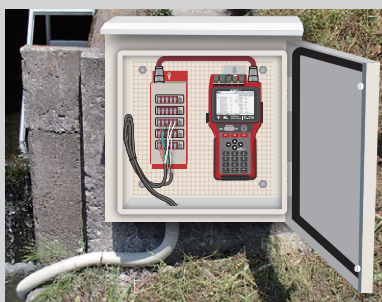

Battery-driven time using onboard sleep timer

Interval Time	Ambient temperature: 23°C		Ambient temperature: 0°C	
	Single unit of TC-37K	+CSW-5B	Single unit of TC-37K	+CSW-5B
1 min	2.5 days (60 hours)	1.8 days (43 hours)	1.75 days (42 hours)	1.2 days (30 hours)
10 min	24 days	17 days	16 days	12 days
1 hour	116 days	100 days	81 days	70 days
3 hours or more	300 days	250 days	208 days	145 days

*The above operating time is an example with alkaline dry batteries

Remote observation

The TC-37K is equipped with RS-232C interface. Measured data can be collected and managed in a remote place by using a modem or a protocol converter for e-mail transmission.
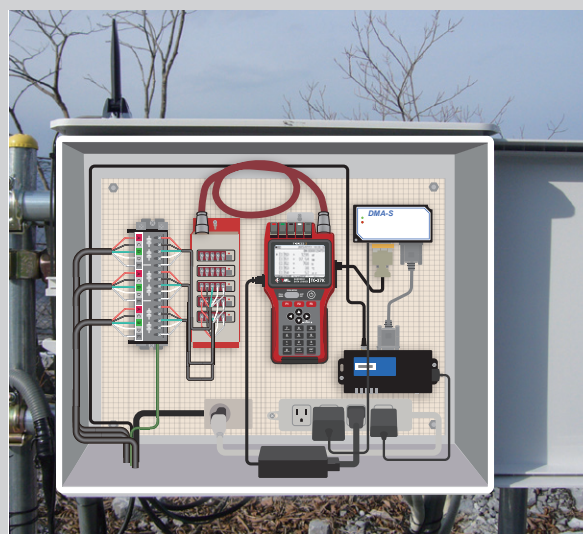
Example of remote measurement system using protocol converter

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