



NEW




**T-ZACCS BOX
Measurement Box AU-50**

- Master unit and channel units are used in combination
- Capable of measuring strain, DC voltage and thermocouples
- Up to 50 measurement points in one set
- The number of measuring points can be selected according to the number of channel units connected
- Built-in power booster for multipoint long-distance extension
- Supports the complete correction method for strain (Comet)
- T-ZACCS 3 Can be used with the TS-360 portable data logger and the TDS-540 data logger




**High speed Switching Box
IHW-50G**

- Electrically isolated from data logger
- Measurement of strain, DC voltage, thermocouple and PtRTD
- Sampling speed is 0.04s/channel 0.4 seconds/1000 channels at the fastest by parallel sampling of built-in ADC
- Surge absorber for lightning protection equipped for each channel as standard
- Connected to data logger by optical fiber or RS-422
- Complete compensation method of strain
- Applicable data logger: TS-963/TS-960/TDS-630/TDS-540




**Switching Box
ISW-50G**

- Electrically isolated from data logger
- Measurement of strain, DC voltage, thermocouple and PtRTD
- Sampling speed is 0.04s/channel 2 seconds/1000 channels at the fastest achieved by built-in ADC
- Surge absorber for lightning protection equipped for each channel as standard
- Connected with data logger by optical fiber or RS-422
- Complete compensation method of strain
- Applicable data logger: TS-963/TS-960/TDS-630/TDS-540




**Switching Box
FSW-10/FSW-10L**

- 10-channel unit dedicated to combined use with TDS-150
- Five units (50 channels) can be connected at the maximum
- Measurement of strain, DC voltage, thermocouple and Pt-RTD
- 1-gauge 4-wire strain measurement possible
- FSW-10L is smaller in size than FSW-10, as it does not have NDIS receptacle and modular jack
- CE marked



**Portable Data Logger
TDS-150**

- Connectable five channel units (FSW-10/FSW-10L) at the maximum for 50 channels
- Long-term automatic measurement using sleep interval timer
- Low power consumption
- Measurement of strain, DC voltage, thermocouple and Pt-RTD
- Reading of TEDS sensor possible
- Complete compensation method of strain
- USB and RS-232C interface
- Connection of network module possible (factory installed option)
- LAN board (factory installed option)
- CE marked




**Switching Box
CSW-5B/CSW-5B-05**

- Measurement of strain, DC voltage, thermocouple and Pt-RTD
- Sensor mode is set from TC-32K
- Connection to terminal is possible either by screwing or soldering
- Number of measuring point is 5



**Handheld Data Logger
TC-32K**

- Measurement of strain, DC voltage, thermocouple and Pt-RTD
- Insulation and resistance measurement function provided to check sensors
- USB and RS-232C interface
- 1-gauge 4-wire strain measurement possible
- Complete compensation method of strain
- Reading of TEDS sensor possible
- Easy connection of cable wires without connector
- Automatic measurement using interval timer
- Multi-point measurement when used with CSW-5B (CSW-5A also acceptable)
- CE marked



**Switching Box
SSW-50D**


- 1-gauge 4-wire strain measurement possible
- Measurement of strain, DC voltage and thermocouple
- Combined use possible with ASW-50C and SSW
- Complete compensation method of strain
- Cascaded to data logger using one Φ9mm cable
- Applicable data logger: TDS-630/TDS-540/TDS-530/TDS-602/TDS-303

TML-NET NETWORK MEASUREMENT SYSTEM

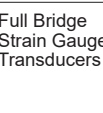
TML-NET Network Measurement System

Inputs


Quarter Bridge Strain Gauge




Full Bridge Strain Gauge Transducers



DC voltage




Thermocouple




Network module


NSW-011C




NSW-014C
NSW-024C



NSW-01VC

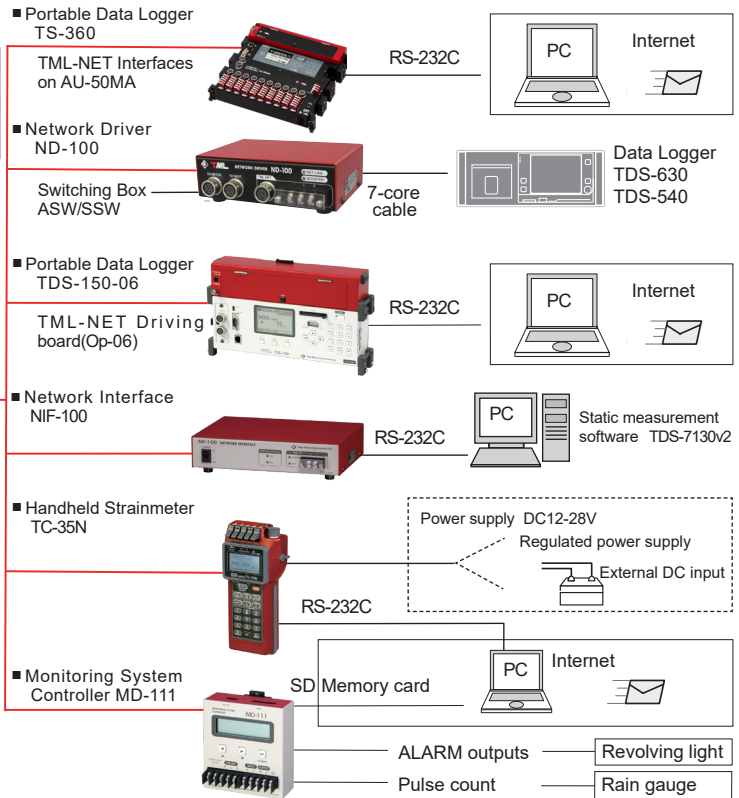


NSW-01TC



2-wire connection

- Portable Data Logger TS-360
- TML-NET Interfaces on AU-50MA
- Network Driver ND-100
- Switching Box ASW/SSW
- Portable Data Logger TDS-150-06
- TML-NET Driving board(Op-06)
- Network Interface NIF-100
- Handheld Strainmeter TC-35N
- Monitoring System Controller MD-111



Connections shown in diagram:

- TS-360, ND-100, ASW/SSW, TDS-150-06, NIF-100, TC-35N, MD-111 connect to PC/Internet via RS-232C.
- ASW/SSW connects to TDS-630/TDS-540 via 7-core cable.
- TC-35N connects to PC/Internet via RS-232C, powered by DC12-28V Regulated power supply (External DC input).
- MD-111 connects to PC/Internet via SD Memory card, ALARM outputs (Revolving light), and Pulse count (Rain gauge).

- Connection and branching are easy
- Small and light weight network module; Easy installation
- 2-wire digital data transmission made by ADC built in the network module
- Various network modules available for strain gauge, transducer, DC voltage or thermocouple
- No sensitivity drop due to cable extension
- Total extension of 2 km possible using 100 network modules of low-power-consumption type
- Combined use with switching boxes is possible - Isolated between instruments
- Small and light, and DIN rail mounting possible

TML-NET NETWORK MEASUREMENT SYSTEM

 <p>NEW</p>	<p>Network Driver ND-100</p> <ul style="list-style-type: none"> Interface for driving network modules from data logger TDS-630 or TDS-540 Number of measuring point is 100 for one unit; By the use of 10 units, measurement of 1000 points is possible Parallel use available with conventional measuring system using SSW/ASW switching box The total distance between data logger and ND-100 is possible up to 2 km 		<p>Network Interface NIF-100</p> <ul style="list-style-type: none"> Interface for driving network modules directly from computer through RS-232C interface Number of measuring point is 100 Control possible by Static Measurement Software Visual LOG TDS-7130v2
	<p>Monitoring System Controller MD-111</p> <ul style="list-style-type: none"> Configuration of disaster prevention system using alarm output via contact output Automatic measurement using sleep interval timer Counting and recording of rain gauge pulse using contact input Small, light and DIN rail mounting possible Measured data are stored in SD card 		<p>Network Handheld Strainmeter TC-35N</p> <ul style="list-style-type: none"> Small, light and waterproof AA size battery driven Suitable for checking on site and/or configuration of small scale measurement system Control from computer through equipped RS-232C interface Measurement of 5 points or less when internal battery or AC adaptor is used; 100 points or less when external DC input is used Flash memory card usable Sleep interval timer provided
	<p>Strain Quarter Bridge Module NSW-011C</p> <ul style="list-style-type: none"> For quarter bridge 3-wire method 120Ω or 350Ω (specified when ordering) Low power consumption <ul style="list-style-type: none"> During standby 1mA max During measurement 36mA max Measuring range $\pm 30000 \times 10^{-6}$ strain 		<p>Strain Full Bridge Module NSW-014C</p> <ul style="list-style-type: none"> For strain full bridge method Low power consumption <ul style="list-style-type: none"> During standby 1mA max During measurement 36mA max Applicable resistance 120~1000Ω Measuring range $\pm 30000 \times 10^{-6}$ strain
	<p>Strain Full Bridge 2-channel Module NSW-024C</p> <ul style="list-style-type: none"> For strain full bridge method Number of measuring point is 2 <ul style="list-style-type: none"> Connection of 100 modules for measurement of 200 points is possible at the maximum Low power consumption <ul style="list-style-type: none"> During standby 1mA max During measurement 36mA max Applicable resistance 120~1000Ω Measuring range $\pm 30000 \times 10^{-6}$ strain 		<p>Voltage Module NSW-01VC Thermocouple Module NSW-01TC</p> <p>Voltage Module NSW-01VC</p> <ul style="list-style-type: none"> For measurement of DC voltage Measuring range <ul style="list-style-type: none"> V1 ± 2.5V V2 ± 25V <p>Thermocouple Module NSW-01TC</p> <ul style="list-style-type: none"> Applicable thermocouple T <ul style="list-style-type: none"> [JIS C1602-2015] Measuring range -100~+200°C
 <p>NEW</p>	<p>Network Module NSW-01CC</p> <p>A module that counts precipitation, flow rate, quantity, number of vehicles that pass by, frequency of machine operation, and other information with no-voltage contact or open collector input. A built-in backup battery allows to continue counting even when the power supply is not available.</p>		<p>Lightning Protection Unit for TML-NET NNZ-2A</p> <p>Prevents the measuring system from malfunctioning caused by induced lightning</p> <ul style="list-style-type: none"> Surge resistance 100A (8/20 μs impulse) Number of usable units <ul style="list-style-type: none"> NNZ-2A 10 Low power consumption module 100 Cable to be used Exclusive 2-wire shielded cable <p>Total extension distance 2 km or less with DC24V power source 1 km or less with DC18V power source</p>