

TML Switching Box

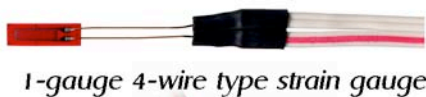
SSW-50D

Compatible with
TML 1-gauge 4-wire strain
measurement method
without sensitivity drop
due to lead wires



- Available for strain, DC voltage and thermocouple measurements
- Possible strain measurement with TML new 1-gauge 4-wire method
- Can be used with TML Switching boxes model SSW / ASW-50C and ISW-50C
- Complete strain correction method provided

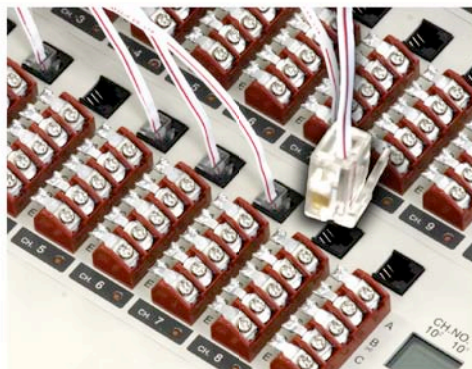
1-GAUGE 4-WIRE MEASUREMENT SYSTEM (Patent pending)



1-gauge 4-wire type strain gauge



4-wire type modular plug



TML developed 1-gauge 4-wire method is designed not to be affected by the resistance of lead wires between strain gauges and the bridge box and contact resistance. With the method, there is neither sensitivity degradation due to leadwire extension nor sensitivity variation with temperature. Easy wire connection with modular plug makes troublesome soldering work unnecessary. The method can largely save the use of leadwires and wiring time.



Tokyo Sokki Kenkyujo Co., Ltd.

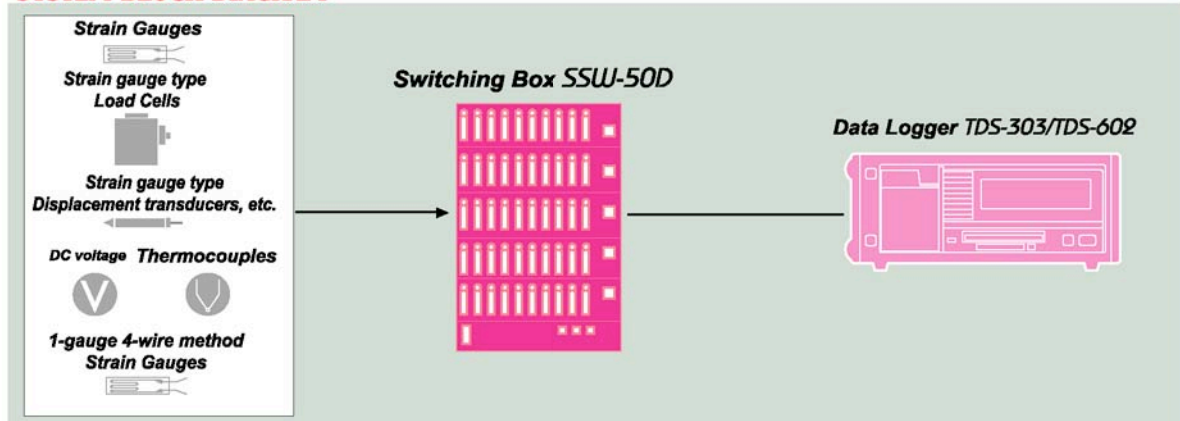
SPECIFICATIONS

Number of measuring channels	50	
Measuring object	Strain	
3-wire quarter bridge	120Ω, 240Ω, 350Ω	
Half bridge	60 ~ 1,000Ω (*1)	
Half bridge with common dummy	60 ~ 1,000Ω (*1)	
Full bridge	60 ~ 1,000Ω (*1)	
Full bridge with constant current	350Ω	
1-gauge 4-wire method	120Ω, 240Ω(*2), 350Ω(*2)	
Measuring range	According to combined data logger	
(*1) 120~1000Ω depending on the mode of data logger		
(*2) Upgrading ROM is required when using this mode Please ask TML for the compatible version		
Sensor cable extension range	Within total resistance of 400Ω (Full bridge with constant current) Within total resistance of 200Ω (1-gauge 4-wire method)	
Zero stability	3-wire quarter bridge Within $\pm 1.0 \times 10^{-6}$ strain /°C 1-gauge 4-wire method Within $\pm 1.0 \times 10^{-6}$ strain /°C Half bridge Within $\pm 0.5 \times 10^{-6}$ strain /°C	
Voltage measurement	Measuring range According to combined data logger Input impedance 1MΩ or more	
Thermocouple measurement	Measuring range According to combined data logger	
Sensor mode	Remote Settable for each channel by data logger	
Measuring point number	Optional setting of the upper 2 digit for every 10 points	
Measuring point indication	Red LED for each channel Semiconductor relay	
Operating temperature and humidity	-10 ~ +50°C 85%RH or less (without condensation)	
Power requirement	Ordinarily from data logger When a power booster is needed for long distance or multiple units, use AC power AC85~120V 50/60Hz 13VA MAX AC121~250V 50/60Hz 21VA MAX	
Dimensions	298(W) x 75(H) x 500(D) mm (without projection)	
Weight	7 kg	
Standard Accessories	Operation manual	1 copy
	Connection Cable (CR-185)	1 piece
	AC Power Cable (CR-01)	1 piece
	Screwdriver	1 piece

[Options] Moisture protection heater

Power AC85~120V 50/60Hz 49VA MAX
AC121 ~ 250V 50/60Hz 178VA MAX

SYSTEM BLOCK DIAGRAM



Specifications are subject to change without prior notice.

The SSW-50D switching box is used in combination with TML TDS-602/-303 Data Loggers to expand the measuring channels. The number of measuring channel is 50 per unit, and in addition to measurements of strain in ordinary bridge configurations, DC voltage and thermocouples, a new strain measurement method with a 1-gauge 4-wire is provided.

Since modular connector plugs are available for the 1-gauge 4-wire measurement, wire connection can be speedy finished.

Compatible Data Loggers



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