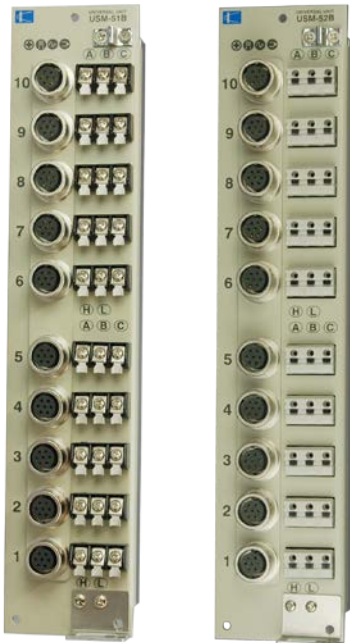




USM-51B

USM-52B



Strain/Voltage/Thermocouple Unit

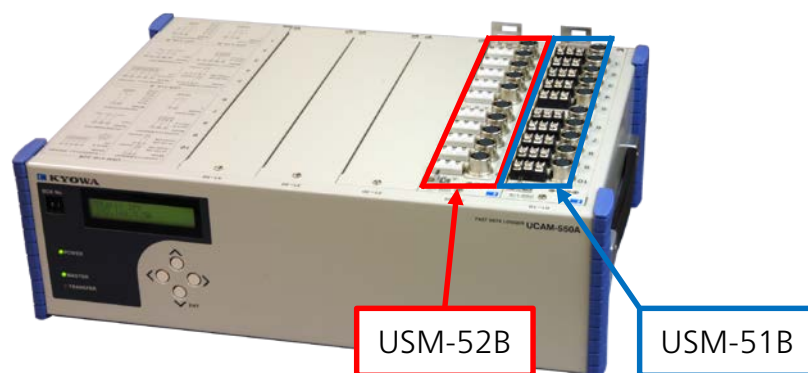
USM-51B/52B **NEW**

Multi-input Unit for UCAM-550A
(For strain, voltage, and thermocouples)

- ✓ Every channel can be chosen for strain, voltage and thermocouples.
- ✓ Up to 300k $\mu\text{m}/\text{m}$ can be inputted
- ✓ Applicable for various thermocouples of K, T, E, J, R, and N
- ✓ TEDS compatible
- ✓ Possible of combination with conventional units.
- ✓ Equipped with both NDIS connectors and terminal blocks
- ✓ (Terminal blocks for quarter bridge gages, voltage, and thermocouples)
- ✓ USM-51B equipped with screw-soldering terminal blocks
- ✓ USM-52B equipped with one-touch terminal blocks

Improving the combination flexibility for individual experiment

UCAM-550A with USM-51B and USM-52B



Fast Data Logger UCAM-550A

Enables to repeatedly measure a maximum of 1000 channels at an interval of 0.02 s.

Enables to measure from static to dynamic phenomena.

- All channels synchronous sampling
- For measuring strain, voltage, and temperature

Specifications

Models	USM-51B	USM-52B
Input Terminals	NDIS connectors, and screw-soldering terminal blocks	NDIS connectors, and one-touch terminal blocks
Channels	10	
Measuring Targets	Quarter Bridge: 2-wire/3-wire 120, 350 Ω Half Bridge & Full Bridge: 120 to 1000 Ω Strain-gage Transducers: 120 to 1000 Ω Potentiometer-type Sensor: 1k to 10k Ω Voltage: -20 to 20 V Temperature (Thermocouples): K, T, E, J, R, and N, The resistance of each thermocouple will be 1k Ω or less.	
Sampling Modes	Synchronous sampling of all channels, for temperature measurement the updating rate is approx. 1 second.	
Bridge Excitation	2 VDC	
Power to Sensor	2 VDC, for potentiometer-type sensors	
Gage Factors	2.00 fixed	
Frequency Response	DC to 7.8 Hz, deviation: 0.5 to -3.5dB, except temperature measurement	
Burn-out Check	Performing burn-out when checking	
TEDS	Reading information from TEDS-installed sensors	
Dimensions	60 W x 120 H x 290 D mm (Excluding protrusions)	
Weight	Approx. 850 g	Approx. 750 g

Measuring range, resolution, and accuracy

Strain, potentiometers, and voltage

Targets	Modes	Range	Resolution	Accuracy
Strain	L	-19k to 19k $\mu\text{m/m}$	1 $\mu\text{m/m}$	Within $\pm 0.08\%$ FS
	H	-300k to 300k $\mu\text{m/m}$	10 $\mu\text{m/m}$	
Potentiometers		-50.00% to 50.00%	0.01%	Within $\pm 0.1\%$ FS
Voltage		-20.000 to 20.000V	1 mV	Within $\pm 0.08\%$ FS

Temperature (Thermocouples)

Types	Range	Resolution	Accuracy		Accuracy of Internal Reference-junction Compensator
K	-200.0 to 1200.0 °C	0.1 °C	-200.0 to below -100.0 °C	±(0.3% of reading + 0.8 °C)	Within ±1.0 °C [When temperature balanced at input terminals] [Ambient temp.: 25 ±10 °C]
			-100.0 to 1200.0 °C	±(0.2% of reading + 0.6 °C)	
T	-200.0 to below -100.0 °C		±(0.3% of reading + 0.8 °C)	Within ±2.0 °C [When temperature balanced at input terminals] [Ambient temp.: Other than mentioned above]	
	-100.0 to 350.0 °C		±(0.2% of reading + 0.6 °C)		
E	-200.0 to below -100.0 °C		±(0.3% of reading + 0.8 °C)		
	-100.0 to 800.0 °C		±(0.2% of reading + 0.6 °C)		
J	-200.0 to below -100.0 °C		±(0.3% of reading + 0.8 °C)		
	-100.0 to 750.0 °C		±(0.2% of reading + 0.6 °C)		
R	0.0 to below 100.0 °C		±(0.6% of reading + 1.2 °C)		
	100.0 to 1600.0 °C		±(0.5% of reading + 1.0 °C)		
N	-200.0 to below -100.0 °C		±(0.3% of reading + 0.8 °C)		
	-100.0 to 1250.0 °C		±(0.2% of reading + 0.6 °C)		

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Safety Precautions

Be sure to observe the safety precautions given in the instruction manual, in order to ensure correct and safe operation.

• Specifications are subject to change without notice for improvement.



Manufacture's Representative