Move into the future with reliable measurements

KYOWA

EDX-5000A
Memory recorder / Analyzer

To the higher quality
All-in-one measuring instrument including a monitor and data loggers

Advanced all-in-one measuring instrument having sophisticated

TOUCH

With touch panel EDX-5000A

- Up to 80 input channels
- High-speed sampling at 200 kHz / 32 channels
- Great operability and enhanced real-time processing
- Various measuring modes
- Built-in batteries against instantaneous power failure
- More compact and lightweight
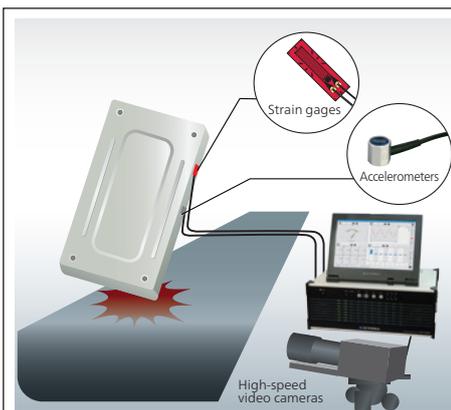
Applications

◀ **Drop and impact testing of lithium-ion batteries**

The EDX-5000A measures high-speed data including drop tests since the sampling frequency is max. 200 kHz. The EDX-5000A also records the high-speed video camera data in synchronization with the clock.

Ride quality evaluation of railway vehicles ▶

Since the multiple EDX-5000A units enable synchronous measurements, you are able to measure multi-channel on-site data (such as ride quality evaluations of vehicles).

Strain gages

Accelerometers

High-speed video cameras
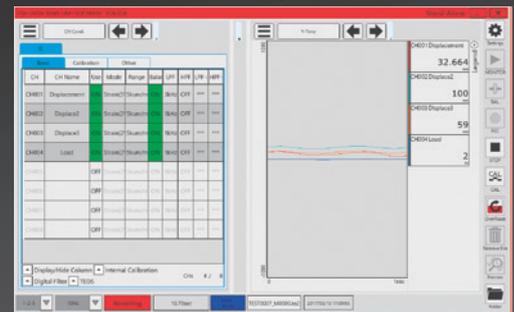
Strain gages

Accelerometers
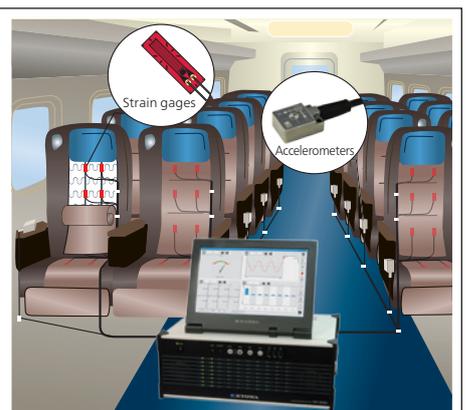
features and high-speed processing capabilities.

Measures data while checking the recording conditions.
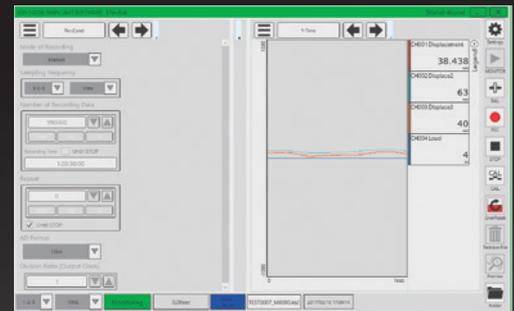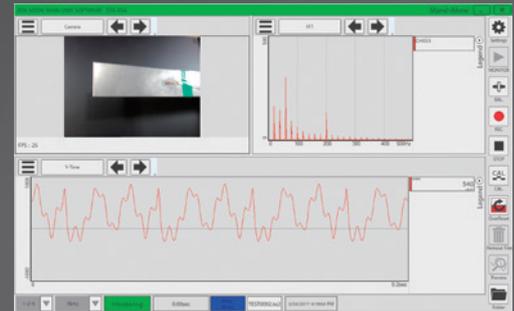

Recording conditions + data acquisition window

Measures data while checking the channel conditions.

Channel conditions + data acquisition window

Measures data while acquiring the video data.

FFT window + video data window + data acquisition window

Great operability

The built-in intuitive software ETA-55A (see page 4) and touch panel enable settings, monitoring, recording, and checking easily.
The ETA-55A measures data while checking the recording conditions and measuring conditions on the split windows.
The ETA-55A checks the measured data on various graphs while monitoring/recording data.
The ETA-55A also records video, executes arithmetic operations, digital filtering, and FFT analysis in real time.
The Data Analysis Software DAS-200A executes statistic processing and histogram analysis.

*The EDX-5000A are able to be operated from the remote control unit RCU-42A (optional accessory, see page 10).

* The EDX-5000A also has built-in compatible software ELA-55A (see page 4), which is able to operate the EDX-5000A as the conventional software.

Synchronous measurement: Max. 800 channels

The synchronous measurement is max. 800 channels by connecting ten EDX-5000A units.
The EDX-5000A is able to measure data in synchronization with the EDX-200A (or EDX-3000B).
*Note that you are not able to measure data by synchronizing the EDX-200A and EDX-3000B.

Various external I/O

The external I/O include 8-bit digital I/O, trigger I/O, clock I/O, and voice outputs as standard equipment. The EDX-5000A controls external devices and the external devices control the EDX-5000A as well.

Digital I/O	PC
Clock I/O	High-speed video cameras
USB	Web cameras
Trigger I/O	Test equipment
Trigger I/O	Measuring instruments
Clock I/O	Rotary encoders

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● HARDWARE SPECIFICATIONS

Model

Model	Input channels (max.)	Slots	Storage	Language
EDX-5000A-64-HE	64	8	HDD	English
EDX-5000A-64-SE	64	8	SSD*1	English
EDX-5000A-80-HE	80	10	HDD	English
EDX-5000A-80-SE	80	10	SSD*1	English

Applicable Conditioner Cards (optional accessories)	CVM-41A, CDV-40B(-F), DPM-42B(-F), DPM-42B-I(-F), CTA-40A, CFV-40A, CCA-40A(-F), CDV-44AS, CDA-44AS, CDA-45AS, AD-40AS(-F)
Input Channels	[EDX-5000A-64] Max. 64 (CDV-40B ×8) [EDX-5000A-80] Max. 80 (CDV-40B ×10)
Analog Input	See specifications of respective conditioner cards for details.
Digital I/O	
I/O Points	Max. 8
I/O Setting	Sets every bit to digital input, digital output, or remote-control input with the same common. *Remote-control input: Measuring start, stop, balance conducting, etc.
Input Mode	Isolated, TTL level input
Input Voltage	Max. 5 VDC
Isolation Mode	Digital isolation
Output Mode	Isolated, open collector output (with built-in pull-up resistor of 10 kΩ)
Output Voltage	5 VDC
Output Current	Max. 25mA/point
Voice Input	1 channel, (To be recorded together with measuring data.) An optional remote control unit RCU-42A is required.
Sampling Frequencies	1-2-5 series 1 Hz to 200 kHz for up to 32-channel data acquisition 1 Hz to 100 kHz for up to 64-channel data acquisition 1 Hz to 50 kHz for up to 80-channel data acquisition 1 Hz to 10 kHz for real-time synchronous data processing 2^n series 2 Hz to 131.072 kHz for up to 32-channel data acquisition 2 Hz to 65.536 kHz for up to 64-channel data acquisition 2 Hz to 32.768 kHz for up to 80-channel data acquisition 2 Hz to 8.192 kHz for real-time synchronous data processing *The condition is using a 16 bits A/D converter. *As for a 24 bits A/D converter, the channels above will be half of each channel.
Storage	HDD model: 300 GB or more SSD model: 30 GB or more
Display	Channel status LED (OVER value of every channel are settable) REC, BUSY, BATTERY, POWER LED 12.1" wide touch panel
Operation Keys	Keys REC, STOP, BAL. and OPT. are operated by touch panel, keys on EDX, external keyboard, or mouse
Output Control Connectors	CONT.IN, CONT.OUT (For remote control unit, or synchronous operation)
External I/O Connectors	External triggers: TRG IN, TRG OUT External clock: CLK IN, CLK OUT (Output at any frequency division ratio)
External Interfaces	USB type keyboard USB type mouse VGA connector for monitor USB I/F: 3 USB 2.0 in front*2, 2 USB 3.0 in rear LAN I/F: 100/1000BASE-T
Power Supply	100 to 240 VAC and 10 to 30 DC (Dual supply) Built-in batteries against momentary power failure
Current Consumption	[EDX-5000A-64] Approx. 1.8 A (For 100 VAC, CDV-40B x 8) [EDX-5000A-80] Approx. 2.0 A (For 100 VAC, CDV-40B x 10)
Operating Temperature	0 to 40°C
Operating Humidity	20 to 80% RH (Non-condensing)
Storage Temperature	-20 to 60°C

Vibration Resistant	[EDX-5000A-64-HE, EDX-5000A-64-SE, EDX-5000A-80-HE, EDX-5000A-80-SE] 49.0m/s²(5G), 5 to 55 Hz (When not operating) 29.4m/s²(3G), 5 to 55 Hz (When operating) [EDX-5000A-64-HE, EDX-5000A-80-HE] 9.8m/s²(1G), 10 to 200 Hz (When operating) [EDX-5000A-64-SE, EDX-5000A-80-SE] 19.6m/s²(2G), 10 to 200 Hz (When operating)
Impact Resistant	196.1m/s² (20G), 11ms
Dimensions	[EDX-5000A-64] 365(W)×159(H)×300(D)mm (Excluding protrusions) [EDX-5000A-80] 410(W)×159(H)×300(D)mm (Excluding protrusions)
Weight	[EDX-5000A-64] Approx. 11.5 kg (Mainframe only) [EDX-5000A-80] Approx. 12.5 kg (Mainframe only)
Optional Functions	CAN data acquisition (Input channels: Max 512) GPS data acquisition (Tracing data acquisition, time synchronous function)
Online Control	Controlled by DCS-100A
EMC Directive	EN61326-1 (Class A)
Low Voltage Directive	EN61010-1 (Installation category II, Pollution degree 2)
RoHS Directive	EN50581

*1 Solid State Drive (SSD)
*2 The available current is approx. 100 mA (Max.).

Standard accessories
- AC Power cable P-18 (1.8 m) (With 2-pin conversion plug CM-39)
- DC power cable P-70 (2 m)
- Ground wire P-72 (5 m)
- Instruction manual (CD-R)
- EDX accessory bag

Optional accessories
- Dummy panel EDX2000-DUMMY, EDX1P-DUMMY
- Remote control unit RCU-42A
- Synchronous cable N-95 (2 m)
- Belt hook
- Built-in battery (against momentary power failure)
- Conditioner cards

● OPTIONAL FUNCTIONS (OPTIONAL ACCESSORIES) SPECIFICATIONS

■ GPS/multichannel CAN module EGPC-50A

I/O Ports	GPS/CAN common ports: ×1 Dsub connector (9-pin, male) CAN ports: ×1 Dsub connector (9-pin, male)
Input Channels	Max. 512
Supported CAN Version	Compatible with CAN 2.0A/B active (ISO-11898 and ISO-11519-2 compliant)
Baud Rates	High speed CAN 1000, 800, 500, 250, 125, 100, 83.3, 62.5, 50, 33.3, 25, 20, 10 kbps Low speed CAN 125, 100, 83.3, 62.5, 50, 33.3, 25, 20, 10 kbps
CAN Data Output	Output at Start: Output any given CAN data when measurement starts. Output at Stop: Output any given CAN data when measurement stops. Manual output: Output any given CAN data at an arbitrary timing. Interval output: Output any given CAN data in a predetermined fixed cycle.
GPS Data	Latitude, longitude, elevation, course over ground, speed, time, receiving conditions, the number of satellites in use, etc. Saving format: NMEA format
Synchronization	Synchronizes the recording start time of EDX-5000A units by using the time data received from GPS satellites.

Standard accessories
- GPS sensor (Cable length: 5 m)
*Please contact Kyowa or our representatives for attaching the EGPC-50A.

■ Comparison table ETA-55A and ELA-55A

	EDX-5000A main unit software ETA-55A	Compatible software ELA-55A
■ **Measuring Conditions**		
Saving or Reading Sensor Information File	–	Saves and reads the sensor information files (CSV format) on the channel conditions.
■ **Measuring Operations**		
● **FFT Analysis**		
Analysis Channels	Max. 4 channels / graph	4 channels/window, max. 8 windows
Saving	–	Saves the analysis results in FFT analysis result files (CSV files).
● **Monitor**		
Y-time Graph	X axis indicates the time, and Y axis the physical values (Analog, digital, calculation, CAN, GPS, excluding the CAN frame) of measurement for a maximum of 8 channels.	X axis indicates the time, and Y axis the physical values of measurement for a maximum of 16 channels. Displays 1 to 10 graphs on a window.
Y-time Graph (All channels)	–	X axis indicates the time, and Y axis the physical values of measurement for all channels. The line color is the same for all channels for all channels.
Y-time (DIV) Graph	–	X axis indicates the time, and Y axis the physical values of measurement for a maximum of 16 channels. The zero points of the channel can be placed at any place on the Y-axis scales.
X-Y Graph	X and Y axes indicate the measured data, max. 4 channels	X and Y axes indicate the measured data, max. 8 channels
Bar Graph	Max. 80 channels Displays max. and min. values.	Max. 32 channels are contained in a graph. Displays 1 to 4 graphs on a window. Peak hold ON/OFF
Digital Graph	–	X axis indicates the time, and Y axis bit data of a digital channel. (Max. 16 bits) Displays 1 to 4 graphs on a window.
Bar Meter	–	Displays any 1 channel in a horizontal or vertical bar meter.
Numeric Display	Max. 80 channels Displays max. and min. values.	All channels Displays max. and min. values are possible.
Graph Scale	Displays auto-scale value on the Y-time graph (Y axis), X-Y graph (X, Y axes), and bar graph (Y axis).	Displays auto-scale value and full-scale value on the Y-time graph (Y axis), X-Y graph (X, Y axes), and bar graph (Y axis). The Y-time graph (Y axis) is able to change to 1 axis or 2 axes and channel.
Windows	Up to 12 different graph windows are available at the same time.	8 numeric windows and 8 graph windows (Including a FFT window) In total: 16
Display Color	–	Any color can be selected.
Title & Label	–	Specifies any title of X-axis and Y-axis labels.
Auxiliary Line	–	Displays the desired auxiliary line on the Y-time graphs (X axis and Y axis), X-Y graphs (X axis and Y axis), and bar graphs (X axis and Y axis). (Up to 4 auxiliary lines each for both X axis and Y axis.)
Comparative Data	–	Displays the comparative data (previous KS2 format file) on the Y-time graphs, excluding the Y-time (all channels) graphs and Y-time (DIV) graphs, and X-Y graphs for comparing the monitor data. The size of the data, which can be displayed, is max. 10 MB. *Displays the 10 MB from its head if the file size exceeds 10 MB.
Saving Image File	Saves image files of every graph.	(Copy the graph windows by using the clipboard.)
■ **Environmental Configuration**		
Control Mode	–	Offline/online switchable
Automatic File Conversion	Automatic file conversion upon complete measurement (CSV format file).	Automatic file conversion upon complete measurement (CSV, XLS, XLSX or RPCIII format).
■ **GPS CAN Optional Functions**		
CAN Data Acquisition	Acquires CAN data up to 512 channels. (Data is saved as a file of E4A format.) *Set the CAN conditions by using the ELA-55A.	Acquires CAN data up to 512 channels. (Data is saved as a file of E4A format.)
Communication Conditions	Setting not available *Set the CAN conditions by using the ELA-55A.	Communication standards, baud rates, termination resistor *Sets the sample point, sample times, and resynchronous jump width automatically.
Measurement ID Conditions	Setting not available *Set the CAN conditions by using the ELA-55A.	Port No., format, frame ID, data length
Measurement Channel Conditions	Setting not available *Set the CAN conditions by using the ELA-55A.	Start bit, bit length, data type, byte order, calibration coefficient (Conditions to extract the CAN data and to convert it into physical quantity.)
Reading CANdb Files	Reading not available *Set the CAN conditions by using the ELA-55A.	File format DBC The number of "Network Node" Max. 1024 The number of "Message" Max. 2048 The number of "Signal" Max. 4096

■ COMMON SPECIFICATIONS ETA-55A and ELA-55A

Measuring conditions

Channel Conditions	Measurement ON/OFF, measuring modes, range, HPF, LPF, digital HPF, digital LPF, balance ON/OFF, CAL, calibration coefficient, offset, offset zero ON/OFF, unit, channel name, measuring range, rated capacity, rated output, upper-limit check value, lower-limit check value, numeric display digits (Selects any items to display), inner sensitivity register ON/OFF, input cable, cable compensation value
Acquisition Data	Sampling frequencies 1 Hz to 10 kHz: Up to remaining disk space of built-in memory Sampling frequencies 10001 Hz to 200 kHz A/D data: 2 to 2000000000 (Used as 16 bits) A/D data: 2 to 1000000000 (Used as 24 bits)
Manual Measurement	Recording from REC to STOP, or pre-set data starts from REC
Interval Measurement	Automatic recording according to designated starting time and recording interval

Trigger Measurement		
Common Trigger Conditions	End trigger: Settable Pre-trigger: Max. 2097152 points per channel. Post-trigger: Max. 2097152 points per channel. (At 24 bits mode) The trigger data correlates with the number of measured channels and A/D data format.	
Analog Trigger Conditions	Trigger channels	Any 1 analog channel
	Trigger level	Sets in physical quantity.
	Trigger slope	Up, down
Digital Trigger Conditions	Trigger bit	Any 1 bit
	Trigger level	0, 1
External Trigger Conditions	Trigger slope	Up, down
Complex Trigger Conditions	Trigger source	Selection of any 4 analog/digital channels, an external trigger channel, or a manual trigger channel

	AND/OR	To be used for analog trigger, digital trigger and external trigger.
	Trigger level	A physical quantity is set for the analog channel, and 0 or 1 for the digital channel.
	Trigger slope	Up, down
Saving or Reading Measuring Condition File	Saves or reads the pre-set measuring conditions.	
Digital I/O Setting	I/O points	Max. 8
	I/O setting	Sets every bit to digital input, digital output, or remote-control input
TEDS Information	Reads sensor's information and sets to channel condition automatically.	

Measuring operations

Available operations are MONITOR, REC, PAUSE, STOP, BAL., and CAL output.

Real-time Processing	Simultaneous monitoring and recording data The sampling frequencies up to 10 kHz are available.
● **Moving Image Data Acquisition with Web Camera**	
Camera	DirectX compatible Web camera (Recognized by the OS as an imaging device)
Cameras	1
Resolution	Max. 640 × 480
Frame Rate	Max. 30 fps
Saving Format	AVI format *Resolution and frame rate depend on the camera. A web camera is optional.
Measuring Conditions During Recording	Manual mode, manual mode (Data points preset)

● **Arithmetic Processing**		
Digital Filter	Characteristics	Butterworth (IIR)
	Type	HPF, LPF
	Order	1 to 8
	Amplitude ratio	-3 dB
	Attenuation	-6dB×NdB/oct (N: Order of filter)
	*The digital filter is allowed to be used with the built-in LPF of conditioner cards.	

Arithmetic Operation	Calculation channels	Max. 64		
	Calculation conditions	ON/OFF, operators (Max. 200 characters), unit, numeric display digits, channel name (Max. 40 characters), calculation zero, and calculation zero value		
	Operator: +, -, ∗, /, ^[power], PI[π], ()			
	Functions			
	SQR	SQR Square root	LOG	LOG Common logarithm
	ABS	ABS Absolute value	LN	LN Natural logarithm
	SIN	SIN Sine	EXP	EXP Exponent
	COS	COS Cosine	HMX	HMX Max. principal strain
	TAN	TAN Tangent	HMN	HMN Min. principal strain
	ASIN	ASIN Arcsine (Return value: Radian)	HSM	HSM Max. shearing strain
	ACOS	ACOS Arccosine (Return value: Radian)	SMX	SMX Max. principal stress
	ATAN	ATAN Arctangent (Return value: Radian)	SMN	SMN Min. principal stress
	DSIN	DSIN (Return value: Angle)	SSM	SSM Max. shearing stress
	DCOS	DCOS (Return value: Angle)	DEG	DEG Principal strain direction
	DTAN	DTAN (Return value: Angle)		

●FFT Analysis	
Analysis Type	Linear spectrum, power spectrum, cross spectrum, autocorrelation, and cross-correlation
Window Functions	OFF, hamming, hanning, fejer, blackman, and gaussian
Number of Analysis Data	256, 512, 1024, 2048, 4096, 8192
Saving Format	Kyowa standard file format (KS2) KS2 file version: 01.06

Monitor

Circle Meter	Displays one channel in a circle meter.
FFT Graph	Displays FFT analyzed results. Max. 4 channels
Web Camera	Displays the captured images of the Web camera.
Over-input Indication	Displays the background, etc. of input exceeded channels in red. (Excluding FFT graphs) *ETA-55A: Displays the background, etc. in red.

GPS/multichannel CAN optional functions

CAN Data Acquisition	Acquires CAN data up to 512 channels. (Saves the CAN data in E4A files.) *Set the CAN conditions by using the ELA-55A.	
CAN Trigger		
Analog Trigger Conditions	Trigger channels	Any 1 analog channel
	Trigger level	Sets in physical quantity.
	Trigger slope	Up, down
Digital Trigger Conditions	Trigger bit	Any 1 bit
	Trigger level	0, 1
Complex Trigger Conditions	Trigger source	Selection of any 4 analog/digital channels, an external trigger channel, or a manual trigger channel
	*Set the CAN conditions by using the ELA-55A.	
Graph Display	Displays the numeric values and analog data in the same graph at the same time.	
GPS Data Acquisition	Monitors/records the GPS data (latitude, longitude, speed, direction, etc.). Saves the GPS data in NMEA file formats.	
Point Zero (Manual measurement)	Uses the GPS time data, received from satellites, as starting manual measurement at zero time (0 ms).	

Environmental configuration

Synchronous Operation Setting	Standalone, sync master, or sync slave is selected.

Others

Oscillator switching (internal/external), operating beep sound, balance reference value, A/D bit switching (16/24 bits), optional switches selection

■INDIVIDUAL SPECIFICATIONS ETA-55A

Measuring conditions

●FFT Analysis	
Analysis Channels	Max. 4 channels / graph

Monitor

Y-time Graph	X axis indicates the time, and Y axis the physical values of measurement for a maximum of 8 channels.
X-Y Graph	X and Y axes indicate the measured data, max. 4 channels
Bar Graph	Max. 80 channels Displays max. and min. values.
Numeric Display	Max. 80 channels Displays max. and min. values.
Graph Scale	Displays auto-scale value on the Y-time graph (Y axis), X-Y graph (X. Y axes), and bar graph (Y axis).
Cursor Display	Displays Y-time graphs and X-Y graphs. Displays numeric data of cursor location.
Windows	In total: 12
Saving Image File	Saves image files of every graph.

GPS/multichannel CAN optional functions

Point Zero (Interval measurement)	Uses the GPS time data, received from satellites, as starting interval measurement at zero time (0 ms).

Environmental configuration

Automatic File Conversion	Automatic file conversion upon complete measurement (CSV format file).

■INDIVIDUAL SPECIFICATIONS ELA-55A

Measuring conditions

Saving or Reading Sensor Information File	Saves and reads the sensor information files (CSV format) on the channel conditions.

Measuring operations

●FFT Analysis	
Saving	Saves the analysis results in FFT analysis result files (CSV files).
Analysis Channels	Max. 4 channels/window, max. 8 windows

Monitor

Y-time Graph	X axis indicates the time, and Y axis the physical values of measurement for a maximum of 16 channels. Displays 1 to 10 graphs on a window.
Y-time Graph (All channels)	X axis indicates the time, and Y axis the physical values of measurement for all channels. The line color is the same for all channels.
Y-time (DIV) Graph	X axis indicates the time, and Y axis the physical values of measurement for a maximum of 16 channels. The zero points of the channel can be placed at any place on the Y-axis scales.
X-Y Graph	X and Y axes indicate the measured data, max. 8 channels
Bar Graph	Max. 32 channels are contained in a graph. Displays 1 to 4 graphs on a window. Peak hold ON/OFF
Digital Graph	X axis indicates the time, and Y axis bit data of a digital channel. (Max. 16 bits) Displays 1 to 4 graphs on a window.
Bar Meter	Displays any 1 channel in a horizontal or vertical bar meter.
Numeric Display	Max. 100 channels Displays max. and min. values are possible.
Graph Scale	Displays auto-scale value and full-scale value on the Y-time graph (Y axis), X-Y graph (X, Y axes), and bar graph (Y axis). The Y-time graph (Y axis) is able to change to 1 axis or 2 axes and channel.
Display Color	Any color can be selected.
Title & Label	Specifies any title of X-axis and Y-axis labels.
Windows	8 numeric windows and 8 graph windows (Including a FFT window) In total: 16
Auxiliary Line	Displays the desired auxiliary line on the Y-time graphs (X axis and Y axis), X-Y graphs (X axis and Y axis), and bar graphs (X axis and Y axis). (Up to 4 auxiliary lines each for both X axis and Y axis.)
Comparative Data	Displays the comparative data (previous KS2 format file) on the Y-time graphs, excluding the Y-time (all channels) graphs and Y-time (DIV) graphs, and X-Y graphs for comparing the monitor data. The size of the data, which can be displayed, is max. 10 MB. Displays the 10 MB from its head if the file size exceeds 10 MB.

Environmental configuration

Control Mode	Offline/online switchable
Automatic File Conversion	Automatic file conversion upon complete measurement (CSV, XLS, XLSX or RPCIII format).

GPS/multichannel CAN optional functions

Communication Conditions	Communication standards, baud rates, termination resistor *Sets the sample point, sample times, and resynchronous jump width automatically.
Measurement Channel Conditions	Start bit, bit length, data type, calibration coefficient (Conditions to extract the CAN data and to convert it into physical quantity.)
Measurement ID Conditions	Port No., format, frame ID, data length
Reading CANdb Files	File format DBC The number of "Network Node" Max. 1024 The number of "Message" Max. 2048 The number of "Signal" Max. 4096
Interval (GPS Synchronization) Measurement	Uses the GPS time data, received from satellites, as starting interval measurement at zero time (0 ms).

● DATA REPRODUCTION/ANALYSIS SOFTWARE SPECIFICATIONS

Data reproduction

Graph Display	Sets max. 4 patterns of display conditions for each graph. Displays 1, 2, or 4 graphs on a single window.
Y-Time Graph	Max. 16 channels per graph. Allows Y axis to be auto scaled.
X-Y Graph	Displays 1 graph on a single window. Displays of arbitrary 4 channels for both the X and Y axis. Allows X axis and Y axis to be auto scaled.
All Data Display	Display of 4 channels for all data with intervals is possible on a single window.
Numeric Data Display	Max. 16 channels of data are listed.
Cursor Display	Displays numeric data of cursor location. Zoom in data between 2 cursors. Display max. and min. data between 2 cursors.
Scrolling	Scrolls X axis on Y-time graphs.
Data Files Editing	Extracts an arbitrary range or arbitrary channel from collected data file and converts to a CSV format file possible. Data file titles, comments, channel conditions display and editing are possible.
Max. and Min. Display	Displays max. and min. data of each channel(5-data), 400-data around the max. or min. graphs.
KS2 Format Files	Block number support (1 block display, all block display) Displays and plays back the audio data.
Video Playback	Playback, backward, repeat, frame-by-frame forward, frame-by-frame backward, jump to the beginning, jump to the end, set the beginning position, set the end position, playback speed (×0.1 to ×20) Playbacks the measured data, video and GPS data at the same time.
AVI Files	Playback frame rate settings, playback start frame No. (time) settings

Data analysis

● Recorded Data Display

Statistic Processing	A list of maxima, minima, averages and standard deviations in a desired section of the data file. The results are saved in CSV format files.
Arithmetic Operation	Inter-channel operations for up to 2 files. The results are saved in a new file. Specifies up to 320 expressions. (Up to 200 characters) Operator: +, -, *, /, ^[power], PI[π], () Functions

SQR	SQR Square root	LOG	LOG Common logarithm
ABS	ABS Absolute value	LN	LN Natural logarithm
SIN	SIN Sine	EXP	EXP Exponent
COS	COS Cosine	HMX	HMX Max. principal strain
TAN	TAN Tangent	HMN	HMN Min. principal strain
ASIN	ASIN Arcsine (Return value: Radian)	HSM	HSM Max. shearing strain
ACOS	ACOS Arccosine (Return value: Radian)	SMX	SMX Max. principal stress
ATAN	ATAN Arctangent (Return value: Radian)	SMN	SMN Min. principal stress
DSIN	DSIN (Return value: Angle)	SSM	SSM Max. shearing stress
DCOS	DCOS (Return value: Angle)	DEG	DEG Principal strain direction
DTAN	DTAN (Return value: Angle)		

● FFT analysis

Analysis Type	Linear spectrum, power spectrum, cross spectrum, auto-correlation, cross-correlation, coherence, transfer function
Number of Analysis Data	256, 512, 1024, 2048, 4096, 8192, 16384, 32768
Window Functions	OFF, hamming, hanning, fejer, blackman, and gaussian
Filter	1, 2, 5, 10, 20, 50, 100, 200, 500, 1000, 2000 Hz and FLAT (12 steps)
Integration Times	0: None, 1 to 2
Average Times	0 (0: whole waveform) to more
Shift Points	2 or more

Analysis Types

Analysis types	Y-time graph	Analysis Graph 1	Analysis Graph 2
Linear spectrum	●	Amplitude (linear)/amplitude (log)	Phase
Power spectrum	●	Amplitude (linear)/amplitude (log)	—
Cross spectrum	●	Amplitude (linear)/amplitude (log)	Phase
Auto-correlation	●	Correlation	—
Cross-correlation	●	Correlation	—
Coherence	●	Coherence	—
Transfer function	●	Amplitude (linear)/amplitude (log)	Phase

Saves the analysis results in CSV files.

Histogram analysis

Analysis Type	Peak/valley, maxima/minima, 1D rainflow, amplitude, 1D time at level, 1D rainflow + peak/valley, 1D rainflow + maxima/minima, 2D rainflow
Number of Slices	1D algorithm: Even numbers from 10 (±5) to 256 (±128) 2D algorithm: Even numbers from 10 to 50 Specifies slice width, hysteresis, offset (maxima/minima), etc.
Analysis Types	Tabular or drawing display (3D display for 2D rainflow)
Life Prediction	Executes the life prediction by using the histogram analysis results of the 1D rainflow, 2D rainflow, and amplitude, the results, and saves them in files. (Reads the S/N data files.)
Filtering	Digital filter IIR filter Transfer characteristics 4th order Butterworth (Cutoff frequency: -6 dB, no delay) HPF, LPF FLAT to 500 kHz (Effective up to 1/2 of the sampling frequency.) Mirroring Saves the analysis results as an additional format.
Differentiation/ Integration	Differentiation/integration times 0: None, 1 to 2 Saves the analysis results as an additional format.

Others

Batch Conversion	CSV format file, Excel format file (XLS, XLSX), RPCIII format file
File Coupling	Couples multiple files, acquired in synchronized operation (master and slave), into one.
Reverse Conversion	Converts back the data files, converted by this software into CSV format, into KS2 format.
File Division	Extracts the specified block No. data of the data file into single file.
Batch Analysis	Analyzes (histogram analysis, filtering, differential/integration) multiple files under the same conditions at the same time.
Overwriting of Multiple Files	Displays and overlaps up to 16 files as the Y-time data. Sets the start position of each data file.
Converting: Multiple KS2 format files into single CSV format file	Converts the multiple KS2 format files, acquired at interval measurements, etc. into single CSV format file.

Able to select applicable conditioner cards.

For strain, voltage and piezoelectric accelerometers.

NEW

Strain/Voltage/Acceleration measurement card
CVM-41A

- Measures max. 500000 μm/m (equal to the elongation of 50%).
- 24 bits A/D converter enables high resolution.
- Antialiasing filter is installed as a standard feature.
- Checks the ZERO balance.
- For sensor power supplies of 2 V, 5 V, and 10 V.

A/D converter card
AD-40AS-F

8-channel voltage input card

*Model without antialising LPF (AD-40AS) is also available.

Strain/Voltage measurement card
CDV-40B-F

Each channel selects strain input or voltage input.

8th order antialiasing filter is installed as a standard feature.

*Model without antialising LPF (CDV-40B) is also available.

Dynamic strain measurement card
DPM-42B-F

Carrier wave type, which is excellent against noise and suitable for strain measurements.

8th order antialiasing filter is installed as a standard feature.

*Model without antialising LPF (DPM-42B) is also available.

Thermocouple card
CTA-40A

For measuring temperatures and suitable for K and T type thermocouples.

This card measures temperatures by using 2 types of thermocouples (K and T).
It is isolated between input and output, and among channels.

F/V converter card
CFV-40A

For measuring pulse frequency of rotation detectors.

This card measures the frequency of the input pulse and has power supply to sensors.
It is isolated between input and output.

Charge amplifier card
CCA-40A-F

For voltage output type piezoelectric accelerometers
8th order antialiasing filter is installed as a standard feature.

*Model without antialising LPF (CCA-40A) is also available.

Constant current amplifier card
CDA-44AS, CDA-45AS

Suitable for on site measurements and cable extension.
- Amplifier having isolated between input and output
- Receives voltages.
- Frequency response   DC to 200Hz

Strain/Voltage measurement insulation card
CDV-44AS

Against common mode noise even in workplaces with power machinery.
- Amplifier having isolated between input and output
- Zero suppression
- Measures voltages up to 50 V.

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*Upon connecting the Transducer Electronic Data Sheet (TEDS)-compatible sensors to the TEDS-compatible cards, the EDX-5000A loads the sensor data. This function makes the EDX-5000A settings easily without fear of incorrect settings.
*Antialiasing filter is a low-pass filter to prevent the pseudo signal output by limiting the band width of the input signal.

■Strain/Voltage/Acceleration Measurement Card CVM-41A

Item	Strain measurement	Voltage measurement	Acceleration measurement (Piezoelectric)
Input Channels	8		
Measuring Target	Strain gages (*1) Strain-gage transducers Voltage	Voltage Voltage output type sensors	Piezoelectric accelerometers (Built-in amplifier)
Input Mode	Balanced differential input	Balanced differential input (*2) (*3)	Unbalanced differential input (*4)
Input Impedance	—	(1 MΩ + 1 MΩ) Within ±10% (*5)	—
Bridge Excitation Power Supply to Sensors (*6)	Constant voltage output BV 2V: 2 VDC BV 5V: 5 VDC BV 10V: 10 VDC	Constant voltage output 2 VDC (±1 V), 5 VDC (±2.5 V), 10 VDC (±5 V) or OFF 20 mA/CH or less	Constant current output: Approx. 4 mA Excitation voltage: Approx. 23 VDC Load: 1 kΩ or less
Gage Factor	2.00 fixed	—	—
Applicable Bridge Resistant	BV 2V: 120 to 1000 Ω BV 5V: 350 to 1000 Ω BV 10V: 500 to 1000Ω	—	—
Balance Operation Settings (zero suppression)	[Auto-balance enabled] Cancel the unbalanced bridge portion in the analog circuit, and zero the measurement value. [Auto-balanced disabled] Do not cancel the unbalanced bridge portion. (The initial unbalanced value in the bridge circuit can be confirmed.)	[Zero suppression enabled] Cancel the input voltage in the analog circuit, and zero the measurement value. [Zero suppression disabled] The input voltage is not balanced utilizing the analog circuit.(Display the input voltage as is.)	—
Balancing Adjustment	BV 2 V: Resistance ±10% (±50000 μm/m) BV 5 V: Resistance ±4% (±20000 μm/m) BV 10 V: Resistance ±2% (±10000 μm/m)	±5 V	—
Measuring Range	BV 2 V : 2 k, 5 k, 10 k, 20 k, 50 k, 100 k, 200 k, 500 k μm/m BV 5 V : 2 k, 5 k, 10 k, 20 k, 50 k, 100 k, 200 k μm/m BV 10 V : 2 k, 5 k, 10 k, 20 k, 50 k, 100 k μm/m	1, 2, 5, 10, 20, 50 V	100, 200, 500, 1000, 2000, 5000 mV
Range Accuracy	Within ±0.2%FS		Within ±1.0%FS
Nonlinearity	Within ±0.1%FS		Within ±0.2%FS
Calibration Value SHUNT CAL	±100% and ±50% of each range and SHUNT (*7)	±100% and ±50% of each range	
Frequency Response	DC coupling: DC to 5 kHz (Deviation: +1 dB, -3 dB) AC coupling: 0.2, 1 to 5 kHz (Deviation: +1 dB, -3 dB) (Refer to HPF.)		0.5 Hz to 5 kHz (Deviation: +1dB, -3dB)
LPF	Transfer characteristics: 5th order Butterworth Cutoff frequency: 30, 100, 300, 1k, 3 kHz, FLAT and AUTO (*8) Amplitude ratio at cutoff point: -3±1dB Attenuation: (-30±3 dB)/oct		
HPF	Cutoff frequency: 0.2, 1 Hz Attenuation: -6 dB/oct		—
AD Resolution	24 bits (*9)		
Distortion Factor	—		1% or less
Monitor Output	Accuracy: Within ±5 V ±0.5% (With ±FS) Nonlinearity: Within ±0.5%FS		
Dimensions	22 (W) ×119 (H) ×213 (D) mm (Excluding protrusions)		
Weight	Approx. 400 g		
Additional Function	Reading of information using TEDS built-in sensor		
EMC Directive	EN61326-1 (Class A)		

(*1) When measuring with the strain gage, use the bridge box.
(*2) When using the voltage conversation adapter FV-1A, this becomes unbalanced input.
(*3) Common mode input voltage range: Within ±20 VDC, absolute maximum input voltage: Within ±50 VDC.
(*4) The voltage conversation adapter FV-1A usage possible.
(*5) When using the voltage conversation adapter FV-1A (At unbalanced input), within 1 MΩ±10%.
(*6) When installed in EDX-100A, the number of channels that can be set to bridge excitation BV10 V or sensor power supply 10 VDC (±5 V) mode will be the number of CVM-41A x3 channels or less.
(*7) When SHUNT CAL has 350 Ω load connected, approx. 257 μm/m output.
(*8) With AUTO settings, the cutoff frequency is set to 1/4 of the sampling frequency.
(*9) When installed in EDX-100A, it will operate in 16 bits resolution.

Standard accessories   Cross recessed binding head machine screw M3 × 6 mm × 2

Optional accessories
● CCA input cable U-111
● CVM input cable U-121 to 123
● CVM concentrated input cable N-121
● Centralized output cable U-62
● Voltage conversation adapter FV-1A
● Voltage input box VI-8A (-T)
● Small-sized bridge box for 1-gage system DBS-120B-8 (C) (T), DBS-350B-8 (C) (T)
● One-touch type bridge box DBV-120A-8 (C), DBV-350A-8 (C)

■A/D Converter Card   AD-40AS, AD-40AS-F*
  * With antialiasing LPF

Item		
Input Channels	8	
Measuring Range	±5 V, ±10 V, OFF	
Input Mode	Unbalanced (Not balanced differential)	
Input Resistant	Approx. 1 MΩ	
AD Resolution	16 bits (± 32000 counts/FS)	
Conversion Accuracy	Within ±0.2% FS	
Nonlinearity	Within ±0.1%FS	
Input Frequency	DC to 50 kHz Deviation +1dB, -3dB	
LPF	Transfer characteristics:	2nd order Butterworth
	Cutoff frequency:	10, 30, 100, 300, 1k, 3k, 10 kHz and FLAT (8 steps)
	Amplitude ratio at cutoff point:	Within -3±1dB
	Attenuation:	Within (-12±1) dB/oct
Antialiasing LPF (AD-40AS-F only)	Transfer characteristics: 8th order Butterworth	
	Cutoff frequency:	Automatic setting at x 0.25 sampling frequency
	Attenuation:	-48±5 dB (At ×0.5 sampling frequency) (Set LPF to [AUTO])
Power Supply to Sensors	Within ±2.5 V ±1% each channel	
Added Functions	Reading of information using TEDS built-in sensor	

Optional accessories
● 8-channel input cable U-127 (1.5 m)
● Voltage input box VI-8A with a cable N-121 (1.5 m)
● Voltage input box VI-8A

■Strain/Voltage Measurement Card   CDV-40B, CDV-40B-F*
  * With antialiasing LPF

Item	Strain measurement	Voltage measurement
Input Channels	8 (Centralized connector)	
Input Mode	Balanced differential input	Unbalanced differential input
Input Resistant	Approx. (10 MΩ + 10 MΩ)	Approx. 1 MΩ
Coupling	DC/AC (DC cut)	
Gage Factor	2.00 fixed	——
Bridge Excitation	2.00 VDC ±2% (120 Ω to 1 kΩ)	——
Balancing Adjustment	Resistance ±2.4% (±12000 μm/m)	——
Measuring Range	500, 1k, 2k, 5k, 10k, 20k, 50kμm/m, and OFF	0.1, 0.2, 0.5, 1, 2, 5, 10 V, OFF
Range Accuracy	Within ±0.2%FS of each range	
Calibration Value	±100% and ±50% of each range	
Nonlinearity	Within ±0.1%FS	
Frequency Response	DC coupling:	DC to 50kHz (Deviation: +1 dB, -3 dB)
	DC cut (AC coupling):	0.2, 1 Hz to 50 kHz (Refer to HPF.)
LPF	Transfer characteristics:	2nd order Butterworth
	Cutoff frequency:	10, 30, 100, 300, 1k, 3k, 10 kHz and FLAT (8 steps)
	Amplitude ratio at cutoff point: -3±1dB	
	Attenuation:	(-12±1) dB/oct
Antialiasing LPF (CDV-40B-F only)	Transfer characteristics: 8th order Butterworth Cutoff frequency: Automatic setting at x 0.25 sampling frequency Attenuation: -48±5 dB (At ×0.5 sampling frequency) * Set LPF to [AUTO].	
HPF	Cutoff frequency: 0.2, 1 Hz Attenuation: -6 dB/oct	
AD Resolution	16 bits	
Added Functions	Reading of information using TEDS built-in sensor	
EMC Directive	EN61326-1 (Class A)	

Optional accessories
● Voltage conversation adapter FV-1A
● 8-channel input cable (U-38 to 48)
* Although the remote sensing transducers use the N-81 to N-85, you are not able to use the remote sensing function.

■Dynamic Strain Measurement Card DPM-42B, DPM-42B-F (*1), DPM-42B-I (*2), DPM-42B-I-F (*1,*2)

*1: With antialiasing LPF   *2: Low inverter noise type

Measuring Target	Strain gages, strain-gage transducers
Input Channels	4
Frequency Response	DC to 5 k Hz (Deviation: ±10%)
Carrier Wave Frequency	12 kHz
Applicable Bridge Resistant	120 to 1000 Ω
Gage Factor	2.00 fixed
Bridge Excitation	2 Vrms, 0.5 Vrms switching, 12 kHz sine wave
Balancing Adjustment	Resistance: ±2.4% (±12000 μm/m) Capacity: 2000pF
Balance Adjustment Method	Resistance: Pure electronic auto balance (Saved in nonvolatile memory) Capacity: CST method (Automatic tracking)
Measuring Range	With bridge excitation 2 Vrms: 200, 500, 1000, 2000, 5000, 10000, 20000 μm/m and OFF (8 steps) With bridge excitation 0.5 Vrms: 1000, 2000, 5000, 10000, 20000, 50000 μm/m and OFF (7 steps)
Calibration Value	±100% and ±50% of each range
Nonlinearity	Within ±0.2%FS
LPF	Transfer characteristics: 2nd order Butterworth Cutoff frequency: 10, 30, 100, 300, 1 kHz and FLAT (6 steps) Amplitude ratio at cutoff point: -3±1dB Attenuation: (-12±1) dB/oct
Antialiasing LPF (DPM-42B-F, DPM-42B-I-F)	Transfer characteristics: 8th order Butterworth Cutoff frequency: Automatic setting at × 0.25 sampling frequency Attenuation: -48±5 dB (At ×0.5 sampling frequency) * Set LPF to [AUTO].
AD Resolution	16 bits
Added Functions	Input check functions: Input resistance into one side of the bridge, and check input. Reading of information using TEDS built-in sensor
Monitor Output	Accuracy: Within ±5 V ±0.5% (With ±FS) Nonlinearity: Within 0.5%FS
Withstand Voltage	Between input and output: 250 VAC, 1 min.
EMC Directive	EN61326-1 (Class A)

Optional accessories	● Monitor output cable U-64 * Although the remote sensing transducers use the N-81 to N-85, you are not able to use the remote sensing function.

■Thermocouple Card CTA-40A

Measuring Target	Thermocouples
Input Channels	8
Applicable Bridge Thermocouple	K, T
Thermocouple Resistant	200 Ω or less (With burnout ON) 1000 Ω or less (With burnout OFF)
Measuring Range	K1230, K480, K240, T400, T210 and OFF (6 steps)

Measuring range	Temperatures
K1230	-200 to 1230°C
K480	-200 to 480°C
K240	-200 to 240°C
T400	-200 to 400°C
T210	-200 to 210°C

General Accuracy	Ambient temperature 20±3°C Within ±(0.5%rdg+1)°C Ambient temperature 0 to 40°C Within ±(0.5%rdg+2)°C
Calibration Value	100% and 50% and 0°C as absolute value of each range
Frequency Response	DC to 10Hz
AD Resolution	16 bits
Burnout	Built-in: At burnout [Burnout display], with ON/OFF * If a thermocouple resistance is large, turn the burnout function OFF to improve accuracy.
Monitor Output	Accuracy: Within 5 V ±0.5% (With ±FS) Nonlinearity: Within ±0.5%FS
Isolation	Between input and output: 500 VDC, 50 MΩ or more Between channels: 500 VDC, 50 MΩ or more
EMC Directive	EN61326-1 (Class A)

Standard accessories	● 8-channel input cable U-104 ● Temperature measuring adapter CT-2A ×8
Optional accessories	● Centralized output cable U-62

■F/V Converter Card CFV-40A

Measuring Target	Alternating signal output sensors
Input Channels	4
Input Signal	Alternating (Zero cross), TTL level(Including open collector signals)
Input Voltage	±(0.5 V to 50 V): High hysteresis ±(0.1 V to 50 V): Low hysteresis
Measuring Range	50, 100, 500, 1 k, 2 k, 5 k, 10 k, 20 kHz and OFF (9 steps) Accuracy: Within ±0.1%FS
Calibration Value	100%, 50% (Added), and 0% (Absolute value) of each range
Response Time	Below 10 μs (When the input pulse is repeated) 2 cycles of input frequency + below 50 μs (When the input pulse is broken)
AD Resolution	16 bits
Power Supply to Sensors	12 VDC: Within ±10% (Each channel 50 mA or less)
Monitor Output	Accuracy: 5 V ±0.5% (With ±FS) Nonlinearity: Within ±0.1%FS
Isolation	Between input and output: 500 VDC, 50 MΩ or more Between channels: 500 VDC, 50 MΩ or more
EMC Directive	EN61326-1 (Class A)

Standard accessories	● Conversion adapter FV-1A × 4
Optional accessories	● Input cable U-12, U-13 ● Monitor output cable U-64

■Charge Amplifier Card CCA-40A, CCA-40A-F*

* With antialiasing LPF

Measuring Target	Piezoelectric accelerometers
Applicable Accelerometers	Built-in amplifier (Voltage output) type
Input Channels	8
Power Supply to Sensors	Constant current power Constant current output: Approx. 4 mA Excitation voltage: Approx. 24 VDC Load: 1 kΩ or less
Frequency Response	1 to 20k Hz (Deviation: +1dB, -3dB)
Measuring Range	20, 50, 100, 200, 500, 1000, 2000, 5000 mV and OFF (9 steps) Accuracy: Within ±1%FS
Calibration Value	DC CAL ±100% and ±50% of each range Accuracy: Within ±0.2%FS AC CAL ±100% and ±50% of each range Accuracy: Within ±1%FS Frequency accuracy: Within 100 Hz ±5%
LPF	Transfer characteristics: 2nd order Butterworth Cutoff frequency: 300, 1 k, 3 k, 10 kHz and FLAT (5 steps) Amplitude ratio at cutoff point: -3±1dB Attenuation: (-12±1) dB/oct
Antialiasing LPF (CCA-40A-F)	Transfer characteristics: 8th order Butterworth Cutoff frequency: Automatic setting at x 0.25 sampling frequency Attenuation: -48±5 dB (At ×0.5 sampling frequency) * Set LPF to [AUTO].
Distortion Factor	1% or less
AD Resolution	16 bits
Monitor Output	Accuracy: Within 5 V ±1% (With ±FS)
Added Functions	Reading of information using TEDS built-in sensor
EMC Directive	EN61326-1 (Class A)

Standard accessories	● CCA input cable U-111
Optional accessories	● Centralized output cable U-62, Input cable U-109 ● Conversion adapter BNCP-C25J-A (BNC-miniature) ● Conversion adapter CCA-1B (Miniature-Tajimi) ● Conversion adapter CCA-2B (BNC-Tajimi)

■Constant Current Amplifier Card CDA-44AS, CDA-45AS

Measuring Target	Strain gages (full bridge), strain-gage transducers, voltage
Input Channels	4
Input Resistant	Approx. 10 MΩ + 10 MΩ (Strain mode) Approx. 1 MΩ (Voltage mode)
Input Mode	Balanced differential (Strain mode) Unbalanced differential input (Voltage mode)
IMRR	120 dB (When 500 μm/m range)
Frequency Response	DC coupling: DC to 200Hz (Deviation: +1 dB, -3 dB) DC cut (AC coupling): 0.2 Hz (Refer to HPF.)
Gage Factor	2.00 fixed
Applicable Bridge Resistant	120Ω
Bridge Excitation	CDA-44AS Approx. DC16.7 mA (Rated current) (Gage resistance: 120 Ω) *If sensitivity or temperature resistance is in the transducer bridge exitation line, then sensitivity and temperature characteristics are not corrected. CDA-45AS Approx. DC5.7 mA (Rated current) (Gage resistance: 350 Ω) *If sensitivity or temperature resistance is in the transducer bridge exitation line, then sensitivity and temperature characteristics are not corrected.
Cable Length	Cable length within 500 m (When cross-section 0.5 mm²)
Range Accuracy	Within ±0.3%FS
Measuring Range	500, 1k, 2k, 5k, 10k, 20k μm/m, OFF (Strain mode) 1, 2, 5, 10, 20, 50V, OFF (Voltage mode)
Balancing Adjustment	Within ±2.4% (±12000 μm/m) (At strain measurement) Within ±5 V (At voltage measurement)
ZERO Accuracy	Within ±0.3%FS (Voltage OFF mode)
Nonlinearity	Within ±0.1%FS
Calibration Value	±100% and ±50% of each range Accuracy: Within ±0.3%FS
Monitor Output	Accuracy: Within ±5 V±0.5%
LPF	Transfer characteristics: 2nd order Butterworth Cutoff frequency: 1, 3, 10, 30, 100 Hz and FLAT Amplitude ratio at cutoff point: Within -3±1dB Attenuation: Within (-12±1) dB/oct
HPF	Cutoff frequency: 0.2 Hz Attenuation: Within (-6±1) dB/oct
AD Resolution	16 bits
Added Functions	Reading of information using TEDS built-in sensor
Isolation	Between input and case (output): Withstand voltage 500 VDC, 1 min. Between channels: Withstand voltage 500 VDC, 1 min.

Standard accessories	● Voltage conversation adapter FV-2A × 4
Optional accessories	● Input cable U-03 ● Monitor output cable U-64

* Although the remote sensing transducers use the N-81 to N-85, you are not able to use the remote sensing function.

■Strain/Voltage Measurement Insulation Card   CDV-44AS

Measuring Target	Strain gages (full bridge), strain-gage transducers, voltage
Input Channels	4
Input Resistant	Approx. 10 MΩ + 10 MΩ (Strain mode)
	Approx. 1 MΩ (Voltage mode)
Input Mode	Balanced differential (Strain mode)
	Unbalanced differential input (Voltage mode)
IMRR	120 dB (When 500 μm/m range)
Gage Factor	2.00 fixed
Frequency Response	DC coupling: DC to 5 kHz (Deviation: +1 dB, -3 dB)
	DC cut（AC coupling): 0.2 Hz (Refer to HPF.)
Bridge Excitation	Within 2 VDC ±2% (Strain mode)
Range Accuracy	Within ±0.3%FS
Applicable Bridge Resistant	120 to 1000 Ω (Strain mode)
Measuring Range	500, 1k, 2k, 5k, 10k, 20k μm/m, OFF (Strain mode)
	1, 2, 5, 10, 20, 50 V, OFF (Voltage mode)
Balancing Adjustment	Within ±2.4% (±12000 μm/m) (At strain measurement)
	Within ±5 V (At voltage measurement)
ZERO Accuracy	Within ±0.3%FS (Voltage OFF mode)
Nonlinearity	Within ±0.1%FS
Calibration Value	±100% and ±50% of each range
	Accuracy: Within ±0.3%FS
Monitor Output	Accuracy: Within ±5 V±0.5%
	(±5V with full scale of each range)
LPF	Transfer characteristics: 2nd order Butterworth
	Cutoff frequency: 10, 30, 100, 300, 1 kHz and FLAT
	Amplitude ratio at cutoff point: Within -3±1 dB
	Attenuation: Within (-12±1) dB/oct
HPF	Cutoff frequency: 0.2 Hz
	Attenuation: Within (-6±1) dB/oct
AD Resolution	16 bits
Added Functions	Reading of information using TEDS built-in sensor
Isolation	Between input and case (output):
	Withstand voltage 500 VDC, 1 min.
	Between channels: Withstand voltage 500 VDC, 1 min.

Standard accessories ● Voltage conversation adapter FV-2A × 4

Optional accessories ● Input cable U-03
● Monitor output cable U-64
* Although the remote sensing transducers use the N-81 to N-85, you are not able to use the remote sensing function.

●OPTIONAL ACCESSORIES

■Remote control unit   RCU-42A

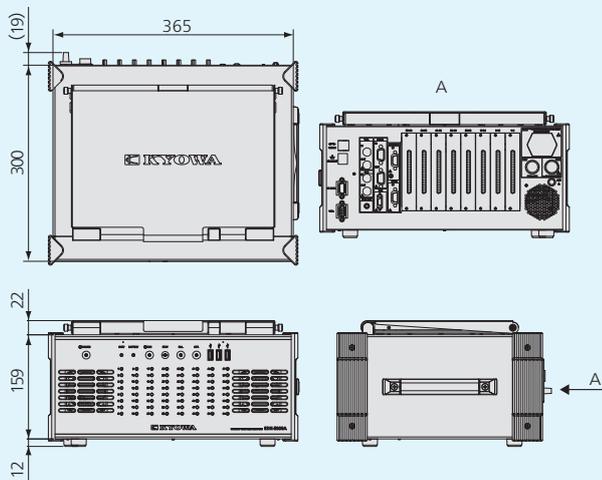The RCU-42A operates the EDX-5000A from remote areas.
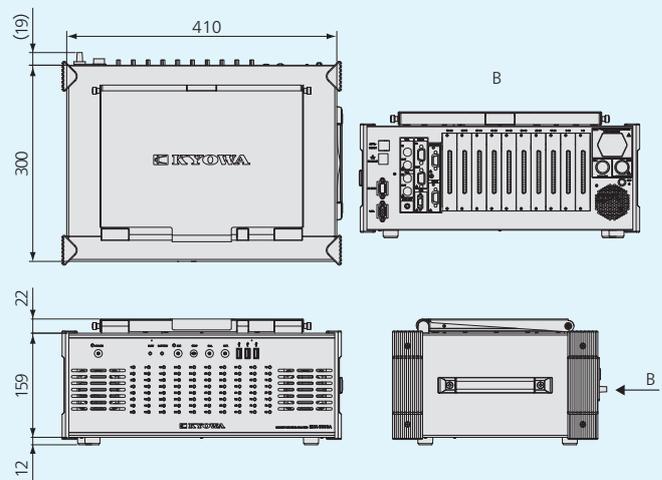The RCU-42A also has an alarm buzzer.

RCU-42A

|	
Control Functions	REC/PAUSE
	STOP
	BAL. (balancing)
	OPT. (optional function)
	VOICE MEMO (recording with the built-in microphone)
Display	Recording, pausing and balancing are indicated with LED.
Cable Length	1.5 m

■DIMENSIONS

EDX-5000A-64

EDX-5000A-80

You can count on Kyowa.
Feel free to contact us,
if there is something you would like to know or
do not understand about Kyowa products.

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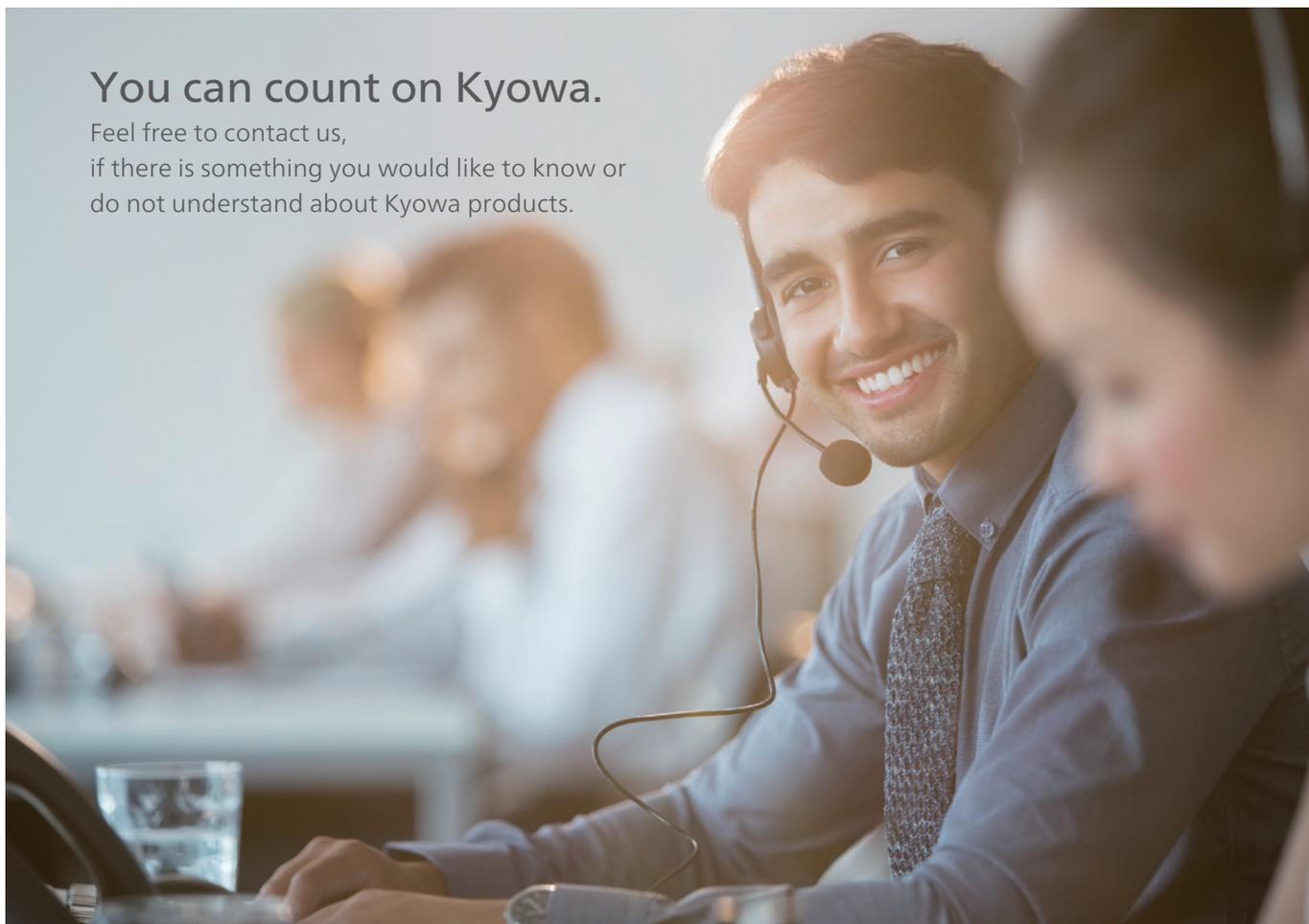
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⚠ **Safety Precautions**

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.

JQA-0821
JQA-EM4824

ISO 9001
ISO 14001

Manufacture's Representative

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