Improved real-time processing function with high-speed DSP

- Incorporated real-time digital filter. 8th digital filter enables acquisition of clear waveform.
- High-speed/lowlow-speed dual sampling Measurement of high-speed and low-speed phenomena while reducing data quantities is possible.
- All channels synchronous 10 kHz high-speed sampling (For 32 channels)
- Measurement of 3 channels synchronous at max. 100 kHz
- Variety of input conditioner cards
- One-wire synchronous (Except EDX-200A-1) With a maximum of 8 units, large scale measurements in distributed arrangement can be supported.

- Conditioner cards (For the details, see page 3-74)
  - Strain/voltage/acceleration measurement card CVM-41A
  - Strain/voltage measurement card CDV-40B/40B-F
  - Dynamic strain amplifier card DPM-42B
  - DPM-42B-F
  - DPM-42B-I
  - DPM-42B-I-F
  - Thermocouple card CTA-40A
  - F/V converter card CFV-40A
  - Charge amplifier card CCA-40A/40A-F
  - CAN card CAN-41A
  - CAN-41A-2
  - CAN-41A-4
  - CAN-41A-8
  - CAN-41A-16
  - CAN-41A-32
  - Constant current amplifier card (120 Ω) CDA-40AS/40AS-F
  - Constant current amplifier card (350 Ω) CDA-44AS/44AS-F
  - A/D converter card AD-40AS/40AS-F

EDX-200A-4T accepts only CVM-41A, CDV-40B, CDV-40B-F, and CAN-41A for which temperature expansion measures are taken.

- Option cards (For the details, see page 3-61)
  - Multichannel CAN card ECAN-40A
  - Time synchronization card ETIM-40A
  - GPS/multichannel CAN card EGPC-40A

### Specifications

<table>
<thead>
<tr>
<th>Models</th>
<th>Channels *</th>
<th>Conditioned slots</th>
<th>Optional slots</th>
<th>DCS-100A</th>
<th>DCS-101A</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDX-200A-2H</td>
<td>16</td>
<td>2</td>
<td>1</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>EDX-200A-2H-0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EDX-200A-2H-1</td>
<td></td>
<td></td>
<td></td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>EDX-200A-4H</td>
<td>32</td>
<td>4</td>
<td>1</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>EDX-200A-4H-0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EDX-200A-4H-1</td>
<td></td>
<td></td>
<td></td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>EDX-200A-4H-0</td>
<td></td>
<td></td>
<td></td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>EDX-200A-4H-1</td>
<td></td>
<td></td>
<td></td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>EDX-200A-4T</td>
<td>8</td>
<td>1</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>EDX-200A-4T-0</td>
<td></td>
<td></td>
<td></td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>EDX-200A-4T-1</td>
<td></td>
<td></td>
<td></td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>EDX-200A-4T-1</td>
<td></td>
<td></td>
<td></td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Notes: *1. Max. input channels are when 8 channels input cards inserted.
*2. Dynamic Data Acquisition Software
*3. Simultaneous Acquisition of Video and Numeric Data/Arithmetic Operations/FFT Analysis Optional Software

### Measuring Targets

- Strain (gage, transducer), voltage, thermocouples, pulse (F/V), piezoelectric acceleration (Built-in amplifier), CAN signals

### Analog Input

The conditioner cards for EDX series

Note: EDX-200A-4T accepts only CVM-41A, CDV-40B, and CDV-40B-F for which temperature expansion measures are taken.

Once mounted, the conditioner cards mustn’t be replaced.

### CAN Data Input

CAN card (2 ports, max. 256 channels): CAN-41A

Note: EDX-200A-4T accepts only CAN-41A for which temperature expansion measures are taken.

Once mounted, the CAN card mustn’t be replaced.

### Voice Memo Input

1 channel (Input voice memo data is recorded together with the measurement data.)

Use remote control unit RCU-42A. (Optional accessory)

Use the Data Analysis Software DAS-200A (optional accessory) to play back recorded voice memos.

### Sampling

- All channels synchronously

### Sampling Mode

- Normal: All channels collected using the same sampling frequency
- Dual: High-speed or low-speed, collected using 2 types of sampling frequencies set for each channel

### Sampling Frequencies

<table>
<thead>
<tr>
<th>Normal Mode</th>
<th>1-2-5 series</th>
<th>1 Hz to 1 kHz</th>
<th>1 Hz to 2 kHz</th>
<th>2 kHz to 65536 Hz</th>
<th>2 kHz to 2048 Hz</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>1 Hz to 100 kHz</td>
<td>2 Hz to 2 kHz</td>
<td>When using CAN-41A</td>
<td>When using CAN-41A</td>
</tr>
</tbody>
</table>
### Measuring Instruments

#### Data Recorders/

<table>
<thead>
<tr>
<th>Model</th>
<th>Specifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDX-200A-1</td>
<td>Approx. 0.9 kg (1.1 with 1 CDV-40B)</td>
</tr>
<tr>
<td>EDX-200A-2H</td>
<td>Approx. 1.8 kg (2.0 with 2 CDV-40B)</td>
</tr>
<tr>
<td>EDX-200A-4H</td>
<td>Approx. 2.1 kg (2.6 with 4 CDV-40B)</td>
</tr>
<tr>
<td>EDX-200A-4T</td>
<td>Approx. 3.7 kg (4.2 with 4 CDV-40B)</td>
</tr>
</tbody>
</table>

#### Dimensions (Excluding protrusions)

<table>
<thead>
<tr>
<th>Model</th>
<th>Dimensions (Excluding protrusions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDX-200A-1</td>
<td>148 W × 53 H × 257 D mm</td>
</tr>
<tr>
<td>EDX-200A-4H</td>
<td>165 W × 132.5 H × 255 D mm</td>
</tr>
<tr>
<td>EDX-200A-4T</td>
<td>185.2 W × 142.8 H × 255 D mm</td>
</tr>
</tbody>
</table>

#### Standards

- Directive 2011/65/EU (RoHS)
- Directive 2014/30/EU (EMC)

#### Power Supply

- EDX-200A-1: Approx. 1.0 A (12 VDC with 1 CDV-40B)
- EDX-200A-2H: Approx. 2.6 A (12 VDC with 2 CDV-40B)
- EDX-200A-4T: Approx. 4.2 A (12 VDC with 4 CDV-40B)

#### Interface Information

- USB/LAN: Communications I/F, switchable
- OPT.: Status display organic EL monitor display switching
- POWER: Power switch

#### Accessories

- CDV-44AS, CDA-44AS, CDA-45AS, CVM-41A
- DPM-42B (-F), DPM-42B-I (-F), CCA-40A (-F), DCP-40A (-F)
- DAS-200A
- Analysis using optional Data Analysis Software
- DAS-20A is possible.

#### Internal Measurement

- Automatically recording functions based upon previously-set interval conditions
- Combination with measured mode when in dual sampling

#### Synchronous Operation

- With LAN cable connection, number of units with synchronous operation: 8
- With LAN cable connection, number of units with synchronous operation: 8

#### Measuring Modes

- Manual measurement/trigger measurement/interval measurement
- Manual measurement: Data recording is manually started or stopped when data is recorded to a preset number of measured data.
- Manual mode allows recording of voice memo during data recording.

#### Trigger Measurement

- Data recording is automatically started when the preset trigger condition is satisfied.

#### Compliance

- Directive 2014/30/EU (EMC)
- Directive 2011/65/EU (RoHS)
- Directive 2014/30/EU (RoHS)

#### Standard Accessories

- DC power cable P-76 (1.8 m)
- USB cable N-38 (1 m)
- Round wire P-72 (5 m)

#### Optional Accessories

- EDX-200A AC adapter 4H, 4T: UEA360-1540 (For U.S.A.: SPU61A-106 15 V)
- EDX-200A AC adapter 2H: UEA345-12 (For U.S.A.: UNI345-1238)

#### Additional Information

- Remote control unit RCU-42A
- Battery unit for instantaneous power failure EDB-418
- Monitor unit EMON-20A
- Synchronous cables N-95
Simplified configuration of the EDX-200A

Options for input

- **Strain-gage transducers** (Load cell, pressure/acceleration/torque transducer, etc.)
- **Voltage**
- **Strain gages**
- **Piezoelectric acceleration sensors**
- **Strain-gage transducers** (Load cell, pressure/acceleration/torque transducer, etc.)
- **Voltage**
- **Strain gages**
- **Strain-gage transducers** (Load cell, pressure/acceleration/torque transducer, etc.)
- **Strain gages**

For voltage/piezoelectric (BNC connector)
- **Bridge box**
- **For voltage/piezoelectric (BNC connector)**
- **Bridge box**
- **Bridge box** (Connector type)
- **Bridge box** (Integrated)
- **Bridge box**
- **Bridge box**
- **Bridge box**
- **Bridge box**

- **Input cable**
- **Input cable**
- **Input cable**
- **Input cable** (8 channels)
- **Input cable**
- **Input cable**
- **Input cable**
- **Input cable**

- **CVM input cable**
- **CVM integrated input cable**
- **CVM integrated input cable**
- **CVM integrated input cable**
- **CVM integrated input cable**

- **DBS-120B-8**
- **DBS-350B-8**
- **DBV-120A-8**
- **DBV-350A-8**
- **VI-8A**
- **U-38 to 48**
- **U-121, U-122, U-123**
- **N-105**
- **N-104**

- **FV-1A**
- **N-105**
- **CDV integrated input cable**

- **Voltage input box**
- **Bridge box**
- **Bridge box**
- **Bridge box**
- **Bridge box**

- **Input**
- **Input**
- **Input**
- **Input**
- **Input**
- **Input**
- **Input**
- **Input**

- **Monitor unit**
- **EMON-20A**

- **Strain-gage transducers**
- **Strain-gage transducers**
- **Strain-gage transducers**
- **Strain-gage transducers**
- **Strain-gage transducers**
- **Strain-gage transducers**
- **Strain-gage transducers**
- **Strain-gage transducers**

- **Bridge box**
- **Bridge box**
- **Bridge box**
- **Bridge box**
- **Bridge box**
- **Bridge box**
- **Bridge box**
- **Bridge box**

- **CVM input cable**
- **CVM input cable**
- **CVM input cable**
- **CVM input cable**
- **CVM input cable**

- **Input cable**
- **Input cable**
- **Input cable**
- **Input cable**
- **Input cable**
- **Input cable**
- **Input cable**
- **Input cable**

- **DBS-120B-8**
- **DBS-350B-8**
- **DBV-120A-8**
- **DBV-350A-8**
- **VI-8A**
- **U-38 to 48**
- **U-121, U-122, U-123**
- **N-105**
- **N-104**

- **FV-1A**
- **N-105**
- **CDV integrated input cable**

- **Voltage input box**
- **Bridge box**
- **Bridge box**
- **Bridge box**
- **Bridge box**

- **Input**
- **Input**
- **Input**
- **Input**
- **Input**
- **Input**
- **Input**
- **Input**

- **Monitor unit**
- **EMON-20A**
MEASURING INSTRUMENTS
Data Recorders/
Analyzers

Options for input

EDX-200A
DC power supply
10 to 36 VDC
Cable (Provided)
*EDX-200A-1:
10 to 33 VDC
AC power supply
UEA360-1540 or
UIA345-12
(Optional)

EDX-200A
Standard accessories

Optional items

EDX-200A

Strain/voltage/acceleration measurement card
CVM-41A

Strain/voltage measurement card
CDV-40B (-F)

Dynamic strain amplifier card
DPM-42B (-F)

PC

Data analysis
software
DAS-200A

LAN cable
(Optional)
or
USB cable
(1 m, provided)

Dynamic data acquisition
software
DCS-100A

Video record/
Numeric operation
DCS-101A

GPS data acquisition
DCF-104A

Monitor unit
EMON-20A

Remote control
unit
RCU-42A

(Dynamic strain amplifier card)

DPM-42B (-F)

CDV-40B (-F)

CVM-41A

DCS-100A

DCS-101A

DCS-104A

EMON-20A

RCU-42A

(Dynamic strain amplifier card)

EDX-200A

Strain-gage transducers
(Load cell, pressure/
acceleration/torque transducer, etc.)

Strain-gage transducers
(Load cell, pressure/
acceleration/torque transducer, etc.)

Strain-gage transducers
(Load cell, pressure/
acceleration/torque transducer, etc.)

For voltage/
piezoelectric
(BNC connector)

For voltage/
piezoelectric
(BNC connector)

For voltage/
piezoelectric
(BNC connector)

For voltage/
piezoelectric
(BNC connector)
### DCS-100A software (standard accessory), specification for control of EDX-200A

*(Not included with EDX-200A-4H-0, EDX-200A-2H-0)*

*For details of DCS-100A, see page 4-3.*

#### Controllable Units

<table>
<thead>
<tr>
<th>Interfaces</th>
<th>LAN, USB</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data Storage</td>
<td>Measured data is saved to CF card in the EDX, and/or data folder in the PC in KS2 format.</td>
</tr>
<tr>
<td>Channel Conditions</td>
<td>Measurement ON/OFF, mode, range, LFP, HFP, balance ON/OFF, CAL range, CAL ON/OFF, calibration coefficient, offset, unit, channel name, measuring range, Deci Digits, rated capacity, rated output, chck.val.(Up), chck.val.(Down), internal sensitivity compensation ON/OFF, offset ZERO ON/OFF, digital filter, sampling frequency (select dual sampling high-speed, low-speed, high-speed+low-speed)</td>
</tr>
</tbody>
</table>

#### Applicable Optional Cards

<table>
<thead>
<tr>
<th>Functions</th>
<th>CAN Data Acquisition</th>
<th>Internal Measurement</th>
<th>Point Zero Measurement</th>
<th>GPS Data Acquisition</th>
<th>DIO Setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cards</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

1: When data is saved in CF card
2: When the card is installed in host EDX
3: When control signals are from a remote control unit
A: Data is saved in the CF card.
B: If synchronous operation, only host EDX is settable.

**CAN Data Acquisition**

- Max. 512 channels/unit of CAN data is possible.
- (CAN data is saved to CF card in the EDX-200A.)

**Point Zero Manual Measurement**

- In multiple units of EDX-200A, allows acquisition to be started at zero second (0 ms) based on clock data of GPS satellite.

**GPS Synchronous Interval Measurement**

- Allows multiple units of EDX-200A to be started acquisition based on clock data of GPS satellite.

**GPS Data Acquisition**

- Monitors and records GPS data such as latitude, longitude, direction of movement, speed.
- GPS data is saved to CF card in EDX-200A as NMEA format.

**DIO Settings**

<table>
<thead>
<tr>
<th>I/O Points</th>
<th>Max. 8</th>
</tr>
</thead>
<tbody>
<tr>
<td>I/O Settings</td>
<td>Sets every bit of digital input, digital output, and remote-control input.</td>
</tr>
</tbody>
</table>

### Measuring Conditions for Saving Data in CF Card

- **Sampling Frequencies**
  - 1 Hz to 100 kHz
  - (1-2-5 series, 2* series, or external clock)
  - (Depends on measuring channels.
  - (Dual sampling is supported.)

- **Data File Size**
  - Max. 4 GB

- **Measuring Modes**
  - Manual, manual (Data points preset), interval, analog trigger, external trigger, and composite trigger

- **Manual Measurement**
  - Measurement is made from a press of the REC button to a press of the STOP button or by completion of recording using a preset number of measurements.

- **Interval Measurement**
  - Measurement is made automatically at preset intervals from the preset starting time.

- **Trigger Measurement**
  - Start/stop recording based upon specified trigger conditions. (The trigger standard values are set absolute triggers.)

- **End Trigger**
  - Settable

- **Delay**
  - For both start and end, max. 262,144 data/ channel
  - (The delay time varies with the number of channels.)

### Analog Trigger

**Trigger Channels**
- Any channel

**Trigger Level**
- Sets in physical quantity.

**Trigger Slope**
- Up, down

**External Trigger Conditions**

**Trigger Slope**
- Up, down

**Composite Trigger Conditions**

**Trigger Source**
- Selects from analog channels (Host EDX any 4 channels), external trigger, or manual trigger.

**AND or OR**
- Trigger source can be logically determined.

**Trigger Level**
- Sets in physical quantity.

**Trigger Slope**
- Up, down

**Repetition Acquisition**
- In long-term data acquisition, a specified amount of data (or time) is saved in KS2 file.

*Workable in manual mode (Data points preset).*

### Measuring Conditions for Saving Data in PC Hard Disk

- **Sampling Frequencies**
  - 1 Hz to 100 kHz (1-2-5 series, 2* series, or external clock)

- **Data File Size**
  - Capacity of the hard disk

- **Measuring Modes**
  - Manual, manual (Data points preset), interval, and analog trigger

- **Static Measurement**
  - Every time the DCS-100A starts recording data, the DCS-100A additionally saves the moving-averaged measured data in a single CSV format file in manual and interval modes.

- **Repetition Acquisition**
  - In long-term data acquisition, a specified amount of data (or time) is saved in KS2 file.

*Workable in manual mode (Data points preset).*

#### Remote Control Unit RCU-42A (Option)

The front panel operation of the mainframe can be performed on this remote control unit. With a buzzer from the unit, an alarm sound can be clearly heard even when the sound from the device is missed.

**Control Functions**
- REC/PAUSE (Starts/pauses data acquisition)
- STOP (Stops data acquisition)
- BAL (Balancing)
- OPT. (Optional function)
- VOICE MEMO (Recording with the built-in microphone)

**Indication**
- Recording, pausing and balancing are indicated with LED.

**Cable Length**
- 1.5 m
**Dimensions (Handle grip in blue)**

EDX-200A-4H

EDX-200A-2H

EDX-200A-4T

EDX-200A-1

**Recommended products for combination**

**Data Analysis Software**

DAS-200A