



Data Logger

Amplifier

Indicator
&
Display

Handheld

Conditioner Cards for EDX Series

(Depend on
models)(Depend on
models)

Conditioner cards selectable according to application

● Extensive lineup

These are conditioner cards for EDX-200A/5000A and MCA-300A. In addition to strain, voltage, acceleration, and temperature measurements, they also support CAN data and other inputs. The lineup includes noise-resistant isolated amplifier cards and dynamic strain measurement cards.

Model

Standard Conditioner Cards



CAN Card
CAN-41A



IEPE Accelerometer
Card
CCA-40A



Constant Current
Amplifier Card
CDA-44AS/45AS
*The figure is CDA-44AS.



Strain/Voltage
Measurement Card
CDV-40B



F/V Converter
Card
CFV-40A



Thermocouple
Card
CTA-40A



Strain/Voltage/Acceleration
Measurement Card
CVM-41A



Dynamic Strain
Amplifier Card
DPM-42B



AD Converter Card
AD-40AS
*The figure is AD-40AS-F.



Strain/Voltage Measurement
Isolation Card
CDV-46AS

Model*1	Channels	Measuring Target						TEDS	Remarks
		Strain*2	Voltage	IEPE Accelerometer	Pulse	Thermocouple	CAN		
CAN-41A	2 (Port)						Yes		
CCA-40A	8			Yes					
CDA-44AS	4	Yes	Yes				Yes		Suitable for cable extension due to constant current method
CDA-45AS	4	Yes	Yes				Yes		
CDV-40B	4	Yes	Yes				Yes		
CDV-44AS	4	Yes	Yes				Yes		Robust against common mode noise
CFV-40A	4				Yes				
CTA-40A	8					Yes			
CVM-41A	8	Yes	Yes	Yes			Yes		
DPM-42B	4	Yes					Yes		Robust against inverter due to the bridge excitation with carrier wave.
AD-40AS	8		Yes				Yes		
CDV-46AS	4		Yes				Yes		Robust against hum noise

*1 Models with "I" are against inverter noise. Models with "F" have antialiasing LPF.

*2 For strain measurement, use bridge boxes. If the sensor with a remote-sensing function, a 4-conductor extension cable (N-81 to 85) enables measurement. But the remote sensing function will be ineffective.



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CAN-41A Specifications

CAN Ports	2
Supported CAN Version	Bosch2.0B active support (ISO-11898 specifications-compliant) High-speed CAN/low-speed CAN selectable each
Connector Shape	Dsub 9-pin (male)
Measurement ID	Max. 32
CAN Controller	Operation Clock 40 MHz, 32 MHz
Communication Speed (kbps)	High-speed CAN 10, 25, 33.3, 50, 62.5, 83.3, 100, 125, 250, 500, 800, 1000 Low-speed CAN 10, 25, 33.3, 50, 62.5, 83.3, 100, 125
Communications Conditions	Sample points, sampling frequency, resynchronization jump width selection.
Measuring Channel Conditions	Start bit, bit length, data type, calibration coefficient (Conditions for conversion of extracting CAN data to physical quantity)
Graph Display	Simultaneous display of graph, numerical value, frame, and analog data
Others	Only one CAN-41A can be mounted in the last slot of the EDX-200A. CAN-41A cannot be mounted in the EDX-5000A.
Compliance	Directive 2014/30/EU (EMC) Directive 2011/65/EU, (EU)2015/863 (10 restricted substances) (RoHS)

CCA-40A(-F) Specifications

Measuring Targets	Piezoelectric accelerometers
Applied Accelerometers	Built-in amplifier (Voltage output) type
Channels	8
Input	Unbalanced
Power Supply to Sensors	Constant current power (Current: 4 mA, excitation voltage: Approx. 24 VDC, load 1 kΩ or less)
Frequency Response	1 to 20 kHz (Deviation: +1 dB, -3 dB)
Measuring Range	20, 50, 100, 200, 500, 1000, 2000, 5000 mV and OFF-9 steps Accuracy: Within ±1% FS
Calibration	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 characteristic: 2nd order Butterworth Cutoff frequencies: 300, 1 k, 3 k, 10 k Hz and FLAT (5 steps) Amplitude ratio at cutoff point: -3 ±1 dB Attenuation: -12 ±1 dB/oct.
SN Ratio	50 dB _{pp} or more
Resolution	16 bits
Monitor Output	Accuracy: Within ±1% FS
Additional Functions	Reads information from TEDS-installed sensors.
Antialiasing LPF (Only applicable to CCA-40A-F)	8th order Butterworth type Cutoff frequencies: Automatic setting at ×0.25 sampling frequency Attenuation: -48±5 dB (When ×0.5 sampling frequency) Note: Available when the LPF is set to AUTO.
Compliance	Directive 2014/30/EU (EMC) Directive 2011/65/EU, (EU)2015/863 (10 restricted substances) (RoHS)

■ **Standard Accessories** Input cable U-111

■ **Optional Accessories** Integrated output cable U-62
Conversion adapter (BNC-miniature) BNCP-C25J-A
Conversion adapter (Miniature-Tajimi) CCA-1B
Conversion adapter (BNC-Tajimi) CCA-2B

CDA-44AS/45AS Specifications

Measuring Targets	Strain gages (Full bridge system), Strain-gage transducers, voltage
Channels	4
Input Impedance	Approx. 10 MΩ + 10 MΩ (Strain mode) Approx. 1 MΩ (Voltage mode)
Input Format	Balanced differential input (Strain mode) Unbalanced input (Voltage mode)
IMRR	120 dB (When 500 ×10 ⁶ strain range)
Frequency Response	DC coupling: DC to 200 Hz, deviation: +1 dB, -3 dB DC cut (AC coupling): 0.2 Hz (See the HPF)
Gage Factor	2.00 fixed (Strain mode)
Compatible Bridge Resistance	CDA-44AS: 120 Ω CDA-45AS: 350 Ω
Bridge Excitation	CDA-44AS: Approx. DC 16.7 mA (Constant current) when gage resistance 120 Ω connected CDA-45AS: Approx. DC 5.7 mA (Constant current) when gage resistance 350 Ω connected *If sensitivity or temperature resistance is in the transducer bridge excitation lines, then sensitivity and temperature characteristics are not corrected.
Cable Length	CDA-44AS: Within 500 m CDA-45AS: Within 1 km (At cross section: 0.5 mm ²)
Range Accuracy	Within ±0.3% FS
Measuring Range	500, 1 k, 2 k, 5 k, 10 k, 20 k ×10 ⁶ strain, OFF (Strain mode) 1, 2, 5, 10, 20, 50 V, OFF (Voltage mode)
Balance Adjustment	Within ±2.4% (±12000 ×10 ⁶ strain) (At strain measurement) Within ±5 V (At voltage measurement)
ZERO Accuracy	Within ±0.3% FS (Voltage OFF mode)
Nonlinearity	Within ±0.1% FS
Calibration (CAL)	Output at ±100% and ±50% of each range Accuracy: Within ±0.3% FS
Monitor Output	Accuracy: Within ±5 V ±0.5%
LPF	Transfer characteristic: 2nd order Butterworth Cutoff frequencies: 1, 3, 10, 30, 100 Hz and FLAT Amplitude ratio at cutoff point: -3 ±1 dB Attenuation: Within (-12 ±1) dB/oct.
HPF	Cutoff frequencies: 0.2 Hz Attenuation: Within (-6 ±1) dB/oct
AD Converter	16 bits
TEDS	Reads information from TEDS-installed sensors.
Isolation	Between input and case (output), and Between channels: Withstand voltage 500 VDC, 1 min.
Max. Sampling Frequency	100 kHz

■ **Standard Accessories** Conversion adapter FV-2A × 4■ **Optional Accessories** Monitor output cable U-64**To Ensure Proper Usage**

For DPM-42B-F, DPM-42B-I-F, CDV-40A-F,
and CDV-40B-F, please be sure to set the internal
sensitivity compensation when changing the low-
pass filter setting to or from AUTO.
If the internal sensitivity compensation is not set,
a sensitivity error of approximately ±2% may
occur.



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CDV-40B(-F) Specifications

Items	Strain Measurement	Voltage Measurement
Measuring Targets	Strain gages, strain-gage transducers	Voltage
Channels	8	
Input Modes	Balanced differential	Unbalanced
Input Resistance	Within (10 MΩ + 10 MΩ) ±10%	Within 1 MΩ±10%
Coupling	DC/AC	
Frequency Response	DC coupling: DC to 50 kHz, deviation: 1 to -3 dB AC coupling (DC cut): 0.2, 1 Hz to 50 kHz (See the HPF)	
Gage Factor	2.00 fixed	—
Bridge Excitation	2 VDC ±2%	—
Compatible Bridge Resistance	120 to 1k Ω	—
Balance Adjustment Range	±2.4% or more (±12000 ×10 ⁻⁶ strain)	—
Balance Adjustment Method	Auto balance (Saved in nonvolatile memory) Accuracy: Within ± (0.1% FS +2×10 ⁻⁶ strain)	—
Measuring Range	500, 1 k, 2 k, 5 k, 10 k, 20 k, 50 k [×10 ⁻⁶ strain], OFF	0.1, 0.2, 0.5, 1, 2, 5, 10 V, OFF
Range Accuracy	±0.2% FS, each range	
Calibration	±100%, ±50%, each range Accuracy: Within ±0.3% FS	
Nonlinearity	Within ±0.1% FS	
LPF	Transfer characteristics: 2nd order Butterworth Cutoff frequencies: 8 steps of 10, 30, 100, 300, 1 k, 3 k, 10 k [Hz] and FLAT Amplitude ratio at cutoff point: -3 ±1dB Attenuation: -12 ±1 dB/oct.	
HPF (DC cut)	Cutoff frequencies: 0.2, 1 Hz Attenuation: -6 dB/oct.	
Antialiasing LFP (CDV-40B-F only)	The LPF setting on the DCS-100A: AUTO Transfer characteristics: 8th order Butterworth Cutoff frequencies: Automatically set at sampling frequencies × 0.25 Attenuation: -48 dB ±5 dB (At sampling frequency ×0.5) Note: Enabled when the sampling frequency 100 Hz or more	
AD Converter	16 bits	
Sampling Frequency	200 kHz (MAX)	
Compliance	Directive 2014/30/EU (EMC) Directive 2011/65/EU, (EU)2015/863 (10 restricted substances) (RoHS)	

■ **Optional Accessories** 8-channel input cable U-38 to U-48
Conversion adapter FV-1A

CDV-44AS Specifications

Measuring Targets	Strain gages (Full-bridge system) Strain-gage transducers, voltage
Channels	4
Input Resistance	Approx. 10 MΩ + 10 MΩ (Strain mode) Approx. 1 MΩ (Voltage mode)
Input Format	Balanced differential input (Strain mode) Unbalanced input (Voltage mode)
IMRR	120 dB (When 500 ×10 ⁻⁶ strain range)
Gage Factor	2.00 fixed (Strain mode)
Frequency Response	With DC coupling DC to 5 kHz, deviation within +1 dB, -3 dB DC cut (With AC coupling) 0.2 Hz (See the HPF)
Bridge Excitation	Within 2 VDC ±2% (Strain mode)
Range Accuracy	Within ±0.3% FS
Compatible Bridge Resistance	120 to 1000 Ω (Strain mode)
Measuring Range	500, 1 k, 2 k, 5 k, 10 k, 20 k ×10 ⁻⁶ strain, and OFF (Strain mode) 1, 2, 5, 10, 20, 50 V, and OFF (Voltage mode)
Balance Adjustment Range	Within ±2.4% (±12000 ×10 ⁻⁶ strain) (At strain measurement) Within ±5 V (At voltage measurement)
ZERO Accuracy	Within ±0.3% FS (Voltage OFF mode)
Nonlinearity	Within ±0.1% FS
Calibration Values (CAL)	Output at ±100% and ±50% of each range Accuracy: Within ±0.3% FS
Monitor Output	Accuracy: Within ±5 V ±0.5% (±5 V to full scale of each range)
LPF	Transfer characteristic: 2nd order Butterworth Cutoff frequencies: 10, 30, 100, 300, 1 k Hz and FLAT (6 steps) Amplitude ratio at cutoff point: -3 ±1 dB Attenuation: (-12 ±1) dB/oct.
HPF	Cutoff frequencies: 0.2 Hz Attenuation: Within (-6 ±1) dB/oct.

AD Converter	16 bits
TEDS	Reads information from TEDS-installed sensors.
Isolation	Between input and case (Output): Withstand voltage 500 VDC, 1 min. Between channels: Withstand voltage 500 VDC, 1 min.
Max.Sampling Frequencies	100 kHz

■ **Standard Accessories** Conversion adapter FV-2A × 4

■ **Optional Accessories** Monitor output cable U-64 (2 m)

CFV-40A Specifications

Applicable Sensor	AC signal output sensor
Measuring Channels	4
Input Signal	AC (Zero Cross), TTL level (including open-collector signal)
Comparator Level	Switching Zero cross (0 V)/TTL level
Input Voltage Range	• Zero cross ±(0.5 to 50 V): Hysteresis large (ZC/N mode) ±(0.1 to 50 V): Hysteresis small (ZC/S mode) TTL level H level: 2.0 to 5.0 V L level: 0 to 0.8 V
Input Impedance	Within 100 kΩ ±10%
Non-linearity	Within ±0.1% FS (Including monitor output)
Measuring Range	9 steps of 50, 100, 500, 1k, 2k, 5k, 10 k, 20 kHz and OFF Measuring range: 50 Hz (0.2 to 51 Hz) 100 Hz (0.2 to 102 Hz) 500 Hz (0.2 to 510 Hz) 1 kHz (0.5 to 1.02 kHz) 2 kHz (LO to 2.04 kHz) 5 kHz (2.5 to 5.1 kHz) 10 kHz (5.0 to 10.2 kHz) 20 kHz (10 to 20.4 kHz) Accuracy: Recorded data Within ±0.1% FS Monitor output Within 5 V±0.5% (When+FS)
CAL Value (CAL)	100% and 50%(Additional value) and 0% (Absolute value) of each range are output. Accuracy: 0% FS (100% and 50%) 0 Hz (0%)
Response Time	2 cycles of input frequency+ 50 μs or less (When input pulse is shutoff) 10 μs or less (For continuous input pulse)
Sensor Power Supply	Within 12 VDC±10%(50 mA or less for each channel)
Resolution	16 bit
Insulation Resistance	Between input and output, and between channels: 500 VDC, 50 MΩ or more
Number of cards installed	Up to 2 cards EDX-200A-1, EDX-200A-2H: One F/V card can be installed EDX-200A-4H, EDX-5000A-64/80: Two F/V card can be installed

■ **Standard Accessories** Conversion adapter FV-1A × 4

■ **Optional Accessories** Input cable U-12, U-13
Monitor output cable U-64

CTA-40A Specifications

Measuring Targets	Thermocouples
Channels	8
Applicable Thermocouples	K (CA), T (CC)
Thermocouple Resistance	200 Ω or less (Burnout ON) 1000 Ω or less (Burnout OFF)
Measuring Range	K1230, K480, K240, T400, T210 and OFF Measuring range 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	Within ±(0.5% of reading+1)°C (At ambient temp. 20 ±3°C) Within ±(0.5% of reading+2)°C (At ambient temp. 0 to 40°C)
Calibration (CAL)	Output at 100% and 50% and 0°C as absolute value of each range
Frequency Response	DC to 10 Hz
Resolution	16 bits
Burnout	Built-in: At burnout [Burnout display], with ON/OFF
Monitor Output	Accuracy: Within 5 V ±0.5% (At +FS) Nonlinearity: Within ±0.5% FS
Isolation	Between input and output, and between channels: 50 MΩ or more (500 VDC)



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Compliance	Directive 2914/30/EU (EMC)
	Directive 2011/65/EU, (EU)2015/863
	(10 restricted substances) (RoHS)

■ **Standard Accessories** 8-channel input cable U-104
Temperature measuring adapter CT-2A × 8

■ **Optional Accessories** Integrated output cable U-62

CVM-41A Specifications

Items	Strain measurement	Voltage measurement	Acceleration measurement (piezoelectric)
Applicable Models	EDX-200A, and EDX-5000A		
Channels	8		
Measuring Target	Strain gage ^(*) Strain gage type transducer	Voltage Voltage output type sensor	Piezoelectric accelerometer (Built-in amplifier)
Input Format	Balanced differential input	Balanced differential input ^(*) ⁽³⁾	Unbalanced input ^(*)
Input Impedance	—	(1 MΩ + 1 MΩ) Within ±1.0% ⁽³⁾	—
Bridge Excitation (BV) Sensor Power Supply (Independently for each channels) ^(*)	Constant voltage output BV2V: 2 VDC BV5V: 5 VDC BV10V: 10 VDC	Constant voltage output BV2V: 2 VDC (±1 V) BV5V: 5 VDC (±2.5 V) BV10V: 10 VDC (±5 V) or OFF 20 mA/channels or less	Constant current output: Approx. 4 mA Excitation voltage: Approx. 23 VDC Load: 1 kΩ or less
Applicable Gage Factor	2.00 fixed	—	—
Applicable Bridge Resistance	BV2V: 120 to 1000 Ω BV5V: 350 to 1000 Ω BV10V: 500 to 1000 Ω	—	—
Balance Operation Settings (Zero Suppression)	[Auto-balance enabled] Cancel the unbalanced bridge portion in the analog circuit, and zero the measurement value. [Auto-balance 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] Do not cancel the input voltage in the analog circuit (Display the input voltage as is.)	—
Balance Adjustment Range (Zero Suppression Range)	BV2V: Resistance ±10% (±50 k μm/m) BV5V: Resistance ±4% (±20 k μm/m) BV10V: Resistance ±2% (±10 k μm/m)	±5 V	—
Measurement Range	BV2V: 2 k, 5 k, 10 k, 20 k, 50 k, 100 k, 200 k, 500 k μm/m BV5V: 2 k, 5 k, 10 k, 20 k, 50 k, 100 k, 200 k μm/m BV10V: 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 (CAL) SHUNT CAL	±100% and ±50% of each range and SHUNT ^(*)	±100% and ±50% of each range	
Frequency Response	DC coupling: DC to 5k Hz (deviation +1 dB, -3 dB) AC coupling: 0.2, 1 Hz to 5k Hz (deviation +1 dB, -3dB) (Refer to high-pass filter)		0.5 Hz to 5k Hz (deviation +1 dB, -3 dB)
Low-pass Filter	Transfer characteristics: 5th order Butterworth Cutoff frequency: 30, 100, 300, 1k, 3k Hz, FLAT and AUTO ^(*) Cutoff accuracy: -3±1 dB Attenuation characteristics: -30 (+3, -7) dB/oct.		
High-pass Filter	Cutoff frequency: 0.2, 1 Hz Roll-off characteristics: -6 dB/oct.		—
AD Converter Resolution	24 bit ^(*)		
Distortion Factor	—		1% or less
Monitor Output	Accuracy: ±5V±0.5% (With ±FS) Non linearity: Within ±0.5% FS		
Dimensions	22 W × 119 H × 213 D mm (not including protrusions)		
Weight	Approx. 400 g		
Added Functions	Reading of information using TEDS built-in sensor		
Compliance	Directive 2014/30/EU (EMC) Directive 2011/65/EU (EU)2015/863(10 restricted substances) (RoHS)		

(*)1)When measuring with the strain gage, using the bridge box.
(*)2)When using the voltage conversation adapter FV-1A and the voltage input box VI-8A, this becomes unbalanced input.
(*)3)Common mode input voltage range ±20 VDC, absolute maximum input voltage range ±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, number of channels that can be set to bridge excitation BV10 V or sensor power supply 10 VDC (±5 V) mode, will be installed number of CVM-41A × 3 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, will operate in 16 bit resolution.

■ **Standard Accessories** 2 cross recessed binding head screws M3×6

■ **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
Input conversion 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 lock type bridge box
DBV-120A-8(C),
DBV-350A-8(C)

DPM-42B(-F) (-I) (-I-F) Specifications

Measuring Targets	Strain gages, strain-gage transducers
Channels	4
Frequency Response	DC to 5 kHz (Deviation: Within ±10%)
Compatible Bridge Resistance	120 to 1000 Ω
Gage Factor	2.00 fixed
Bridge Excitation	2, 0.5 V _{rms} selectable 12 kHz sine wave
Balance Adjustment Range	Resistance: Within ±2.4% (±12000 × 10 ⁻⁶ strain) Capacity: Within 2000 pF
Balance Adjustment Methods	Resistance: Auto balance Capacity: CST method (Capacitance self-tracking)
Measuring Range	With bridge excitation 2 V _{rms} : 200, 500, 1 k, 2 k, 5 k, 10 k, 20 k × 10 ⁻⁶ strain and OFF - 8 steps With bridge excitation 0.5 V _{rms} : 1 k, 2 k, 5 k, 10 k, 20 k, 50 k × 10 ⁻⁶ strain and OFF -7 steps
Calibration Values (CAL)	Output at ±100% and ±50% of each range
Nonlinearity	Within ±0.2% FS
SN Ratio	50 dB _{P-P} or more (Range: 500 × 10 ⁻⁶ strain, DPM-42B, DPM-42B-F) 44 dB _{P-P} or more (Range: 500 × 10 ⁻⁶ strain, DPM-42B-I, DPM-42B-I-F)
LPF	2nd order Butterworth Cutoff frequencies : 10, 30, 100, 300, 1 kHz and FLAT (6 steps) Amplitude ratio at cutoff point : -3 ±1 dB Attenuation : -12 ±1 dB/oct.
Antialiasing LPF (DPM-42B-F, DPM-42B-I-F)	8th order Butterworth type Cutoff frequencies : Automatic setting at ×0.25 sampling frequency Attenuation : -48 ±5 dB (When ×0.5 sampling frequency) Note: Enabled when "AUTO" set in LPF settings.
Resolution	16 bits
Additional Functions	Input check function, TEDS
Monitor Output	Accuracy: ±5 V ±0.5% (At ±FS) Nonlinearity: Within 0.5% FS
Withstand Voltage	Between input and output: 250 VAC, 1 min.
Noise Resistant (DPM-42B-I, DPM-42B-I-F)	Low inverter noise
Compliance	Directive 2014/30/EU (EMC) Directive 2011/65/EU, (EU)2015/863 (10 restricted substances) (RoHS)

■ **Optional Accessories** Monitor output cable U-64

**AD-40AS (-F) Specifications**

Channels	8
Input Range	± 5 V, ± 10 V and OFF
Input Modes	Unbalanced (Not balanced differential)
Input Resistance	Approx. 1 M Ω
AD Converter Methods	Successive approximation
AD Converter	Resolution: 16 bits (± 32000 counts/FS)
Accuracy	Within $\pm 0.2\%$ FS
Nonlinearity	Within $\pm 0.1\%$ FS
Input Frequencies	Range: DC to 50 kHz Deviation: 1dB to -3dB
LPF	Transfer characteristic: 2nd order Butterworth Cutoff frequencies: 10, 30, 100, 300, 1 k, 3 k, 10 k Hz and FLAT (8 steps) Amplitude ratio at cutoff point: -3 ± 1 dB Attenuation: (-12 ± 1) dB/oct.
Antialiasing LPF (AD-40AS-F only)	The LPF setting on the DCS-100A: AUTO Transfer characteristics: 8th order Butterworth Cutoff frequencies: Automatically set at sampling frequencies $\times 0.25$ Attenuation: -48 dB ± 5 dB (At sampling frequency $\times 0.5$) Note: Enabled when the sampling frequency 100 Hz or more
Power Supply to Sensors	± 2.5 V $\pm 1\%$, each channel
TEDS	Reads information from TEDS-installed sensors.

*Specifications and design are subject to change without notice.
*Please contact us for information on product warranties.

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

CDV-46AS Specifications

Measuring Targets	Strain gages (Full-bridge system), Strain-gage transducers, voltage
Channels	4
Input Format	Balanced differential input (Strain mode) Unbalanced input (Voltage mode)
Input Resistance	Approx. 10 M Ω + 10 M Ω (Strain mode) Approx. 1 M Ω (Voltage mode)
IMRR	120 dB (When $2k \times 10^{-6}$ strain range)
Frequency Response	With DC coupling DC to 5 kHz, deviation within +1 dB, -3 dB DC cut (With AC coupling) 0.2 Hz (See the HPF)
Gage Factor	2.00 fixed (Strain mode)
Bridge Excitation	Within 2 VDC $\pm 2\%$ (Strain mode)
Compatible Bridge Resistance	120 to 1000 Ω (Strain mode)
Measuring Range	2k, 5k, 10k, 20k, 50k, 100k $\times 10^{-6}$ strain, OFF (At strain measurement) 1, 2, 5, 10, 20, 50, OFF (At voltage measurement)
Range Accuracy	Within $\pm 0.3\%$ FS
Balance Adjustment Range	Within $\pm 2.4\%$ ($\pm 12000 \times 10^{-6}$ strain) (At strain measurement) Within ± 5 V (At voltage measurement)
ZERO Accuracy	Within $\pm 0.3\%$ FS (Voltage OFF mode)
Nonlinearity	Within $\pm 0.1\%$ FS
Calibration Values (CAL)	Output at $\pm 100\%$ and $\pm 50\%$ of each range Accuracy: Within $\pm 0.3\%$ FS
LPF	Transfer characteristic: 2nd order Butterworth Cutoff frequencies: 10, 30, 100, 300, 1 kHz and FLAT (6 steps) Amplitude ratio at cutoff point: -3 ± 1 dB Attenuation: (-12 ± 1) dB/oct.
HPF	Cutoff frequencies: 0.2 Hz Attenuation: Within (-6 ± 1) dB/oct.
AD Converter	24 bits
Monitor Output	Accuracy: Within ± 5 V $\pm 0.5\%$ (± 5 V to full scale of each range)
Isolation	Between input and case (output): Withstand voltage 500 VDC, 1 min. Between channels: Withstand voltage 500 VDC, 1 min.
TEDS	Reads information from TEDS-installed sensors.
Max. Sampling Frequency	100 kHz

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■ **Optional Accessories** Conversion adapter FV-2A $\times 4$