

Standard Accessories

DC power cable P-76
Ground wire P-72
NTB-500A/C dummy panel (NTB500-DUMMY)*
* NTB-500A/C dummy panel is mounted on a vacant slot before shipment.
Wire connection seal
Rubber feetx4
Driver holder (With a mini screwdriver)x1 set
Simplified software
Driver for a USB/CAN converter
DVD (Dynamic Data Acquisition Software DCS-100A) **
** For NTB-500C, standard accessory. For NTB-500C-0, optional accessory.
Instruction manual

Optional Accessories

NTB-500A/C sync communication cable N-119 (1 m)
Note: Please contact us if other than the cable lengths above are required.
NTB-500A/C sync Y-cable N-120 (One side 0.1 m)
Connection cable N-38 (1 m)
AC adapter SA-10A-EDS (100 to 240 VAC)
(For U.S.A.: UNI318-1215-EDS)
Strain unit NTB-50C
Voltage/thermocouple unit NTB-51C
Docking board for 2 boxes of NTB-500A/C
CN-10A: For connecting 2 boxes of NTB-500A/C
Docking board for 4 boxes of NTB-500A/C
CN-11A: For connecting 4 boxes of NTB-500A/C
NTB-500A/C dummy panel NTB500-DUMMY
DIN rail mounting plate
DIN rail (35 mm)
Terminal resistor CANTERM120
USB/CAN converter LEAFLIGHT HS V2
Data analysis software DAS-200A
NTB power supply box NTB-20A

NTB-50C Specifications

Terminal Block	One-touch type	
Channels	4	
Measuring Targets	Strain gages	
	Strain-gage transducers	
Compatible Bridge Resistance	Quarter-bridge 120 Ω (2-wire, 3-wire)	
	Half-bridge, Full-bridge 120 to 1000 Ω	
Gage Factor	2.00 fixed	
Bridge Excitation	2 VDC±1%	
Check Functions	Cable disconnection check	
TEDS	Reads information from TEDS-installed sensors.	
	Channel name writing (If the manufacturer's ID is Kyowa)	
Measuring Range, Resolution, Range Accuracy		
Measuring range	Resolution	Range accuracy
30 k ×10 ⁻⁶ strain	0.1 ×10 ⁻⁶ strain	±0.1%FS
300 k ×10 ⁻⁶ strain	1 ×10 ⁻⁶ strain	
Response Frequencies	DC to 100 Hz (Deviation +1 dB, -3 dB)	
Dimensions	152.2 W × 6.1 H × 45 D mm (Excluding protrusions)	
Weight	Approx. 85 g	
Compliance	Directive 2014/30/EU (EMC)	
	Directive 2011/65/EU, (EU)2015/863	
	(10 restricted substances) (RoHS)	

*You are not able to combine with the NTB-500A.

NTB-51C Specifications

Terminal Block	Screw-soldering type		
Channels	4		
Measuring Targets	Voltage, thermocouples (K, T)		
Check Functions	Burnout check		
TEDS	N/A		
Measuring Range, Resolution, Accuracy			
■At voltage measurement			
Measuring range	Resolution	Range accuracy	Input resistance
10 V	100 μV	±0.1%FS	Approx. 1 MΩ
50 V	1 mV		

■ At thermocouple measurement

Type	Measuring range	Resolution	Accuracy	
			External standard junction	Internal standard junction range, temp. (25±10)°C
K	-200.0 to 1230.0°C	0.1°C	±(0.5% of reading + 1.0)°C	±(0.5% of reading + 2.0)°C (At input terminal temp. balance)
T	-200.0 to 400.0°C			

*Accuracy doesn't include the accuracy of the thermocouple.

*Switching between internal and external standard junction compensator is possible.

*Thermocouple resistance 1 kΩ or less

Response Frequencies	At voltage measurement: DC to 100 Hz (Deviation +1dB, -3dB) At thermocouple measurement: DC to 10 Hz (Deviation +0.5dB, -1dB)
Isolation	Between channels: 50 MΩ or more (500 VDC)
Dimensions	152.2 W × 6.1 H × 45 D mm (Excluding protrusions)

Weight	Approx. 95 g
Compliance	Directive 2014/30/EU (EMC) Directive 2011/65/EU, (EU)2015/863 (10 restricted substances) (RoHS)

*You are not able to combine with the NTB-500A.

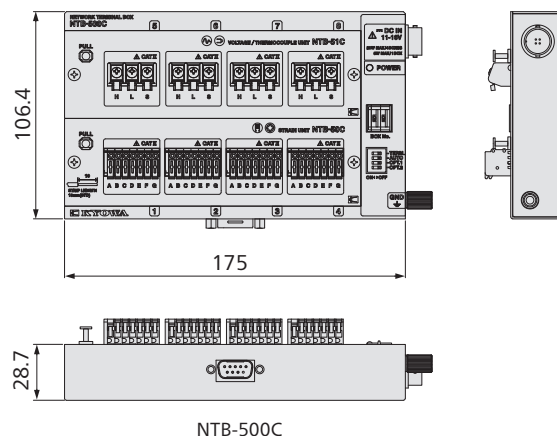
DCS-100A software, specification for control of NTB-500A/C

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

Units	Up to 8 units (up to 64 channels.)
Interfaces	CAN *Uses the USB/CAN converter (LEAFLIGHT HS V2).
Saving Format	Saves the measured data in the PC folder in the KS2 format file.
Channel Conditions	Measuring ON/OFF, Measuring mode, Range, ZERO, Calibr. const., Offset, Unit, Channel name, Measuring range, Rated capacity, Rated output, Deci Digits, Chk. Val. (Up), Chk. Val. (Down) (Display items can freely be selected.)
Sampling Frequencies	1 to 1k Hz *Limited by the communication cable length and number of channels.
Measuring Modes	Manual, Manual (Set Record Data), Interval, Analog Trigger
Manual Measurement	Records data from REC to STOP or from REC to the number of data, specified on the manual (Set Record Data).
Interval Measurement	Records data automatically based on the preset starting time and recording interval. (5 steps, sets the recording interval of each step.)
Analog Trigger Measurement	Starts/stops recording data based on the preset trigger conditions.
End Trigger	Settable
Delay	Up to 262144 data for both start and end. *The delay time varies with the number of channels.
Trigger Channels	Any 1 channel
Trigger Level	Sets in physical quantity.
Trigger Slope	Positive or negative
Loading TEDS Sensor Information	
	Loads the TEDS information automatically and sets the channel conditions.
Changing Stroke	Changes the data, before the stroke and after the stroke, when using a displacement transducer.
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. *Measure Mode: Manual and Interval only.
Repeated Acquisition	When recording data for a long time, the DCS-100A saves data, every preset number of data or every preset interval, in the KS2 format file. *Measure Mode: Manual (Set Record Data) only.

■ Setting Environment**Setting Hardware Configuration**

Sets the number of units, communication cable length, device names, and measuring units.
Loads the hardware configurations from the NTB-500A/C.

■ Dimensions

*With each one unit of NTB-50C and NTB-51C installed