

# Network Terminal Boxes

Digitize a sensor



## NTB-100A Series

- ◆ Decentralized arrangement to wide places is possible via a single wire.
- ◆ These compact and lightweight bridge boxes provide digital output.
- ◆ One AC adapter enables coupling of maximum 8 units.
- ◆ Easy software enables quick measurement.

# Specifications

## Models Available

Model	Bridge Excitation	Sensor Input Terminal	Applicable Bridge Resistance
NTB-100A-120	Constant voltage	One-touch lock	120 Ω
NTB-101A-120		Screw soldering	120 Ω
NTB-100A-350		One-touch lock	350 Ω
NTB-101A-350		Screw soldering	350 Ω
NTB-110A-350	Constant current	One-touch lock	— (for full bridge only)
NTB-111A-350		Screw soldering	— (for full bridge only)

## Models and Applicable Sensors

Bridge Excitation	Applicable Sensors		General Purpose		Civil Engineering	
			NTB-100A-120 NTB-101A-120	NTB-100A-350 NTB-101A-350	NTB-110A-350 NTB-111A-350	
Constant Voltage	Strain gages, strain-gage transducers	Quarter bridge	120 Ω	Yes	No	No
			350 Ω	No	Yes	No
		Half bridge (120 to 1000 Ω)	Active-active method	Yes	Yes	No
		Full bridge (120 to 1000 Ω)	Full bridge method	Yes	Yes	No
Constant Current	Civil engineering transducers	Full bridge (350 Ω)	Full bridge method	No	No	Yes
			W/ temperature measuring function	No	No	Yes

**Number of Measuring Channels:** 4

**Scanning Speed:**

Approx. 0.5 seconds per channel for 0 to ±30000 μm/m

Approx. 1 second per channel for 0 to ±300000 μm/m

**Measurement:** Raw data only

**Coefficient Calculation:** None

**Bridge Excitation:**

Approx. 2 VDC for constant-voltage bridge excitation

Approx. 5.6 mA for constant-current bridge excitation (with bridge resistance 350 Ω)

**Measuring Range:**

0 to ±300000 μm/m with constant-voltage bridge excitation

0 to ±300000 μm/m with constant-current bridge excitation

–30.0° to 70.0°C with civil engineering transducers having temperature measuring function

**Resolution:**

1 μm/m for 0 to ±30000 μm/m

10 μm/m for 0 to ±300000 μm/m

0.1°C

**Accuracy:**

±(0.05% rdg. + 2 μm/m) for 0 to ±30000 μm/m

±(0.10% rdg. + 20 μm/m) for 0 to ±300000 μm/m

±0.5°C

**TEDS Compatibility:** Can read transducer electronic data from TEDS-installed sensors. Channel names of KYOWA transducers can write up to 28 alphanumeric characters.

**Power Save Function:** Provided

**Interface:** Dedicated interface conforming to CAN

**Operating Temperature Range:** –10° to 50°C

**Operating Humidity Range:** 20 to 85% RH (noncondensing)

**Power Supply:** 11 to 16 VDC

**Dimensions & Weight:**

One-touch lock type

150 (W) x 28 (H) x 55 (D) mm (excluding protrusions), approx. 310 g

Screw soldering type

150 (W) x 28 (H) x 110 (D) mm (excluding protrusions), approx. 650 g

**Optional Accessory:** AC adapter

## Control Software NTB-10A

The NTB-10A control software is provided standard. It enables a PC to control remote network terminal boxes and to display measurement results in graphic or numeric format.

**Number of Controllable Units:** Max. 8 (32 channels)

**Measurement Modes:**

RELATIVE mode to measure strain while compensating initial unbalance

ZERO mode to measure initial unbalance

**Number of Measuring Times:** 0 to 9999 (0 = Infinite)

**Channel Conditions:**

Measuring channel ON/OFF

Calibration coefficient calculation ON/OFF

Calibration coefficient

Offset

Engineering unit

Number of digits below decimal point

Resistance at 0°C

Channel name (28 alphanumeric characters)

**Measuring Condition File:**

Measuring condition file can be saved and read. Also, the present setting conditions are automatically saved in internal memory and will be recovered at the start of the next operation.

**Operation Modes:**

Monitor measurement (zero is to be measured)

Interval measurement

**Interval Measurement:**

Starting time and measurement interval can be set.

**Numeric Display:**

Number of numeric windows available on display: 1

Format: List only



JQA-0821  
JQA-EM4824

Specifications are subject to change without notice for improvement.



### Safety precautions

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

Reliability through integration



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