

# Indicators

## MODEL-0218B



This is a low priced simple digital display meter. This compact and light-weight equipment has the following features:

### Features

1. Data hold function (Sample hold)
2. Peak hold function
3. External reset function
4. One-touch auto zero function
5. High and low values settable as desired
6. Analog output

### Standard specifications

Display range	99999-19999
Response	10, 100, 1kHz
Sampling rate	15times/sec.
Decimal point	Free setting
Temperature drift	0.02% F.S./°C
Applied voltage	5VDC
Power supply	100V, 110V, 200V or 220V

## MODEL-0215T



This is a digital display meter compliant with the TEDS Standard (IEEE 1451.4 Class 2 mixed mode interface).

When combined with various TEDS-compatible strain gauge type sensors, sensitivity can be calibrated easily and accurately. Zero calibration, span calibration, upper/lower limit comparison, digital/analog filtering, motion detection and zero tracking can be set manually on the display.

### Features

- The use of the TEDS function ensures easy and accurate sensitivity calibration.
- The display meter needs not be used with a sensor as a pair, but their combination may be changed as desired.
- A sensor in which no TEDS data has been written can also be used.
- Static strain can be measured.
- The conversion cable for connection of MODEL-0215T is a standard accessory.
- CE mark-compliant.
- The power supply is 100 to 240VAC.
- Optionally, BCD parallel data output, RS232C interface and D/A converter (Voltage/current output) are available.

### What is "TEDS"?

"TEDS" stands for "Transducer Electronic Data Sheet". When a memory containing TEDS data of a sensor is installed, the information of the sensor can easily be transferred to a display meter having a function of reading the memory.

Usable load cells (made by AIKOH)  
MODEL-CM, UP, QF, DCD, CH, US, DUD, CB Series

### Specifications

Applied voltage	10VDC, 2.5V±10%, current 120mA	
Signal input range	0 to ±3.0mV/V	
Equivalent input/TEDS	Calibrating range	0.3 to 3.0mV/V
	Calibrating accuracy	0.2% F.S. or better, provided that the sensor sensitivity is set to 0.5mV/V min.
Zero adjustment range	0 to ±2.0mV/V	
Minimum input sensitivity	1μV/count (1/10000 guaranteed at input above 1mV/V)	
Non-linearity	Within 0.02% F.S. (When input is 3mV/V or over.)	
A/D conversion speed	100times/sec.	
Analog filter	4, 10, 100Hz (Default), 3kHz (Set on the panel)	
Analog output	Voltage: 2V±5% max. per 1mV/V, force resistance: 2kΩ or more	
	Response frequency: Approx. 5kHz/-3dB (Not passing through analog filter)	
TEDS function	IEEE1451.4 Class2, mixed mode interface	
Peak-hold function (analog and digital hold system)	Response speed	Approx. 1kHz (Waveform width 2ms: 3mV/V input, analog filter 3kHz)
	Accuracy	0.2% F.S. or better
	When reset	50μs max.
Display	Display range	±19999
Power supply	100 to 240VAC, Approx. 7W	
Operating temperature range	-10 to +40°C (Storage temperature range: -40 to +80°C)	
Operating humidity range	85% RH max. (No condensation)	
External dimensions	Approx. W96 x H96 x D146mm (Projections are not included)	
Weight	Approx. 1kg	
Accessory	AC power cable, 1piece, TEDS conversion cable 1piece, instruction manual (CD-ROM) 1copy	
Option	BCD parallel data output, RS232C interface	
	D/A converter (Voltage/current output)	

# Load cells

<b>MODEL-CK</b>	<b>MODEL-VCV</b>	<b>MODEL-US</b>	<b>MODEL-QF</b>	<b>MODEL-CH</b>
Small size load cell for compression test	High performance load cell for compression test	Load cell for tension/compression	Non-Rotary Type Torque Meter	Load cell for compression test
Capacity: 100N to 20kN	Capacity: 500N to 100kN	Capacity: 10kN to 500kN	Capacity: 0.2 N·m to 1kN·m	Capacity: 5kN to 500kN
<ul style="list-style-type: none"> <li>●Standard Specifications</li> <li>Rated output: 1mV/V (10 &amp; 20kN: 1.5mV/V)</li> <li>Non-linearity: 1%R.O. (10 &amp; 20kN: 2%R.O.)</li> <li>Hysteresis: 1%R.O. (10 &amp; 20kN: 2%R.O.)</li> <li>Repeatability: 1%R.O.</li> <li>Recommend applied voltage: 5V</li> <li>Allowable applied voltage: 7V</li> <li>Temp. Compensation range: -5 to +65 °C (2 to 20kN: -5 to +50 °C)</li> <li>Allowable compensation range: -10 to +70 °C (2 to 20kN: -10 to +60 °C)</li> <li>Allowable overload: 120%R.C.</li> </ul>	<ul style="list-style-type: none"> <li>●Standard Specifications</li> <li>Rated output: 2mV/V±0.25% (50 &amp; 100kN: 2mV/V±0.5%)</li> <li>Non-linearity: 0.15%R.O. (50 &amp; 100kN: 0.1%R.O.)</li> <li>Hysteresis: 1%R.O.</li> <li>Repeatability: 0.05%R.O.</li> <li>Recommend applied voltage: 8V</li> <li>Temp. Compensation range: -10 to +70 °C</li> <li>Allowable compensation range: -15 to +80 °C (50 to 100kN: -15 to +75 °C)</li> <li>Allowable overload: 150%R.C.</li> </ul>	<ul style="list-style-type: none"> <li>●Standard Specifications</li> <li>Rated output: 2mV/V±0.25% (10kN: 1.5mV/V)</li> <li>Non-linearity: 0.1%R.O.</li> <li>Hysteresis: 0.1%R.O.</li> <li>Repeatability: 0.05%R.O.</li> <li>Recommend applied voltage: 10V</li> <li>Allowable applied voltage: 15V</li> <li>Temp. Compensation range: -10 to +70 °C</li> <li>Allowable compensation range: -20 to +80 °C</li> <li>Allowable overload: 150%R.C.</li> </ul>	<ul style="list-style-type: none"> <li>●Standard Specifications</li> <li>Rated output: 1mV/V±1% Non-linearity: 0.3%R.O. Hysteresis: 0.3%R.O. Repeatability: 0.2%R.O.</li> <li>Recommend applied voltage: 10V (6V at 1N·m or less)</li> <li>Allowable applied voltage: 15V (10V at 1N·m or less)</li> <li>Temp. Compensation range: -10 to +70 °C</li> <li>Allowable compensation range: -20 to +80 °C</li> <li>Allowable overload: 150%R.C.</li> </ul>	<ul style="list-style-type: none"> <li>●Standard Specifications</li> <li>Rated output: 1mV/V±1% Non-linearity: 0.5%R.O. Hysteresis: 0.5%R.O. Repeatability: 0.1%R.O.</li> <li>Recommend applied voltage: 10V</li> <li>Allowable applied voltage: 15V</li> <li>Temp. Compensation range: -10 to +70 °C</li> <li>Allowable compensation range: -20 to +80 °C</li> <li>Allowable overload: 150%R.C.</li> </ul>
<b>MODEL-CM</b>	<b>MODEL-DCD</b>	<b>MODEL-DUD</b>	<b>MODEL-QR</b>	<b>MODEL-CB</b>
Very small size load cell for compression test	High performance load cell for compression test	Small high performance load cell for tension/compression test	Rotary type torque meter	Load beam
Capacity: 10N to 2kN	Capacity: 500N to 200kN	Capacity: 500N to 20kN	Capacity: 10N·m to 2kN·m	Capacity: 50N to 10kN
<ul style="list-style-type: none"> <li>●Standard Specifications</li> <li>Rated output: 1mV/V</li> <li>Non-linearity: 1%R.O.</li> <li>Hysteresis: 1%R.O.</li> <li>Repeatability: 0.3%R.O.</li> <li>Recommend applied voltage: 6V</li> <li>Allowable applied voltage: 10V</li> <li>Temp. Compensation range: -10 to +70 °C</li> <li>Allowable compensation range: -20 to +80 °C</li> <li>Allowable overload: 150%R.C.</li> </ul>	<ul style="list-style-type: none"> <li>●Standard Specifications</li> <li>Rated output: 2mV/V±0.5% Non-linearity: 0.15%R.O. Hysteresis: 0.1%R.O. Repeatability: 0.1%R.O.</li> <li>Recommend applied voltage: 10V</li> <li>Allowable applied voltage: 15V</li> <li>Temp. Compensation range: -10 to +70 °C</li> <li>Allowable compensation range: -20 to +80 °C</li> <li>Allowable overload: 150%R.C.</li> </ul>	<ul style="list-style-type: none"> <li>●Standard Specifications</li> <li>Rated output: 2mV/V±1% Non-linearity: 0.15%R.O. Hysteresis: 0.1%R.O. Repeatability: 0.1%R.O.</li> <li>Recommend applied voltage: 10V</li> <li>Allowable applied voltage: 15V</li> <li>Temp. Compensation range: -10 to +70 °C</li> <li>Allowable compensation range: -20 to +80 °C</li> <li>Allowable overload: 150%R.C.</li> </ul>	<ul style="list-style-type: none"> <li>●Standard Specifications</li> <li>Rated output: 1.5mV/V±1% (10 to 50N·m: 1mV/V) Non-linearity: 0.3%R.O. Hysteresis: 0.2%R.O. Repeatability: 0.3%R.O.</li> <li>Recommend applied voltage: 10V</li> <li>Allowable applied voltage: 15V</li> <li>Temp. Compensation range: -10 to +70 °C</li> <li>Allowable compensation range: -20 to +75 °C</li> <li>Allowable overload: 150%R.C.</li> </ul>	<ul style="list-style-type: none"> <li>●Standard Specifications</li> <li>Rated output: 2mV/V±1% Non-linearity: 0.05%R.O. Hysteresis: 0.05%R.O. Repeatability: 0.05%R.O.</li> <li>Recommend applied voltage: 10V</li> <li>Allowable applied voltage: 15V</li> <li>Temp. Compensation range: -10 to +70 °C</li> <li>Allowable compensation range: -20 to +80 °C</li> <li>Allowable overload: 150%R.C.</li> </ul>

## MODEL-3000 Series



### Standard Specifications

Rated capacity	20 N to 20 kN
Rated output	2mV/V=1% (20N: 1mV/V, 10kN & 20kN: 1.8mV/V)
Non-linearity	0.1% R.O.
Hysteresis	0.1% R.O.
Repeatability	0.1% R.O.
Recommended applied voltage	10 V
Allowable applied voltage	15 V
I/O resistance	350 Ω ±2%
Temp.compensation range	-10 to +70°C
Allowable compensation range	-20 to +80°C
Temp.influence upon zero point	±0.005% R.O. / °C
Temp.influence upon output	±0.005% / °C
Allowable overload	150% R.C.

## Tensile & Compression Type Load Cells

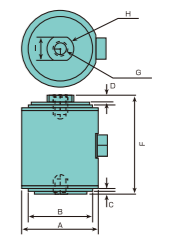
While these load cells with female threads on both sides are designed for both tensile and compression tests, they feature high precision, high output, and less output errors in pushing and pulling, resulting in high reliability. They are widely used for performance tests and industrial measurement of materials and car parts in as wide ranges as 50 N to 20 kN.

### Dimensions

Model	Rated capacity	ΦA	ΦB	C	D	F	G	H	I
3005	50 N	60	50	2	5	80	M10 P1.5	20	17
3020	200 N	60	50	2	5	80	M10 P1.5	20	17
3050	500 N	60	50	2	5	80	M10 P1.5	20	17
3200	2KN	60	50	2	5	80	M10 P1.5	20	17
3500	5KN	68	58	2	10	90	M20 P1.5	36	30
3800	10KN	60	50	3	15	120	M20 P1.5	36	30
3900	20KN	60	50	3	15	120	M20 P1.5	36	30

※3002 (20 N) type is also available. The rated output is 1 mV/V.

### 3000 Series



UP-05K 5N  
UP-2K 20N

### UP Series

Rated capacity	5N, 20N	Rated output	1 mV/V
Allowable overload	150%R.C.	Non-linearity	0.2%R.O.
Hysteresis	0.2%R.O.	Repetition Performance	0.1 %R.O.
Temp.compensation range	-10~+70 °C	Allowable compensation range	-20~+80 °C