

## RZ Series Digital force gage

**NEW!!**



- Easy reading display
- Auto power off function
- USB output
- Analog output ( $\pm 2V$  F.S.)
- Multi power supply (100 to 240V)
- Usable time:  
Approx. 30 hours after full charging

### Model List

Model	RZ-1	RZ-2	RZ-5	RZ-10	RZ-20	RZ-50	RZ-100
Rated capacity	10N (1Kgf)	20N (2Kgf)	50N (5Kgf)	100N (10Kgf)	200N (20Kgf)	500N (50Kgf)	1000 (100Kgf)
Measurement range	0.001-10.000N (0.1gf-1.0000Kgf)	0.01-20.00N (1gf-2.000Kgf)	0.01-50.00N (1gf-5.000Kgf)	0.01-100.00N (1gf-10.000Kgf)	0.1-200.0N (10gf-20.00Kgf)	0.1-500.0N (10gf-50.00Kgf)	0.1-1000.0N (10gf-100.00Kgf)
Min. display unit	0.001N (0.1gf)		0.01N (1gf)			0.1N (10gf)	
Top shaft	M6						

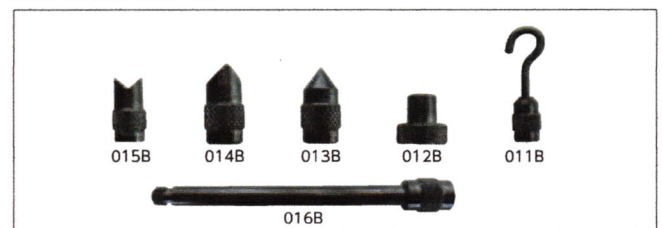
### Standard Specifications

Measurement unit	N, Kgf (gf), Lbf selectable
Accuracy	Within $\pm 0.2\%$ F.S.
Allowable overload	120% R.C. (Overload alarm at approx. 110%)
Measurement item	Track mode/Peak-hold mode/Compression-Tension peak-hold mode selectable
Display update interval	1, 2, 5, 10, 20 times/sec. selectable
Sampling frequency	1, 5, 16, 50, 125 & 250ms selectable
Display	LCD, Signed 5-digits, Main characters height 16.4mm, Sub-characters height 4.7mm Battery remaining charge alarm, Measurement units, Up/down reversible display, Overload alarm Peak-hold mode
Functions	External print input, External contact hold input, External zero-reset input Thermal printer BL2-58 printer output, Mitutoyo digimatic printer output Display update time output selectable in 5 levels, Measurement time selectable in 6 levels, RS232C-USB adaptor output Auto power off, Comparator output and LED light display Both compression peak and tension peak display, Overload output
Power supply	Three exclusive AAA nickel hydrogen cells, Exclusive adaptor (5VDC, 1000mA), Exclusive USB cable Recharging time: Approx. 4.5 hours (measurement possible during recharging) Battery life: 30 hours after full recharging
Charging protect circuit	Stop recharging when the temperature of nickel hydrogen cells go out of bounds from 0 to +50°C. Stop recharging when it cannot recharge over 4.5 hours.
Applicable temperature range	0 to +40°C (Compensated temperature range: 5°C to 40°C)
Size	W68 x D40 x H232 mm
Weight	Approx. 375g
Standard accessories	6 attachments, Exclusive AC adaptor MODEL -780 (100 to 240VAC), European specification plug and Exclusive carry case
Options	Cables for output, Software, Test stand, Jigs and Printer BL2-58

### Standard accessories



### Attachments



# SX Series Digital Force Gages



- With easy reading large display and reversible display
- With automatic power off and automatic zero resetting function
- Printer output and overload output provided as standard features
- Three size AAA nickel-hydrogen cells, with an exclusive adaptor (100 to 240V/European specification plug)
- Recharging time: Approx. 4.5hours (measurable during charging)
- Usable time: Approx. 35hours after full recharging

This is a force gauge with the functions required for a handy-type test equipment.

Operation is easy for simultaneous display of the compression and tensile force values.

External inputs allow easy printout. (A printer is optional.) The AC adaptor exclusive for the SX is applicable to 100-240V with simple plug replacement allows uses in a wide area.

## SX Series Model List

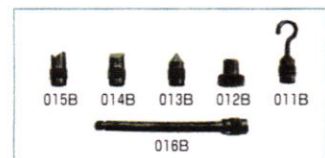
Model	SX-2	SX-5	SX-20	SX-50
Measurement range	20N (2Kgf)	50N (5Kgf)	200N (20Kgf)	500N (50Kgf)
Min. display unit	0.01N/0.001Kgf/1gf		0.1N/0.01Kgf	
Top shaft	M6			

Caution) The min. display unit is not accuracy.

## Optional Cables for SX Series

Overload cable	SX-OP-1
Printer & External input cable	SX-OP-2

## Standard Accessories for SX Series



## SX Series Standard Specifications

Measurement unit	N, Kgf (gf), Lbf selectable
Measurement item	Track/Peak/+Peak/-Peak
Accuracy	±0.2% F.S.
Sampling frequency	20, 62, 200 & 800 times/sec. selectable
Display update interval	1, 2.5, 10 & 20 times/sec. selectable
Display	LCD, Signed 5-digits, 40 x 40mm
Functions	External printer input, external contact hold input, external zero-reset input, overload output, thermal printer BL2-58 printer output, reset after printing (ON/OFF), automatic power off (ON/OFF), automatic zero reset (ON/OFF), both compression peak and tensile peak display
Standard accessories	6 attachments, exclusive AC adaptor (100 to 240VAC) and exclusive carrying case
Options	Thermal printer BL2-58 & cables
Applicable temperature range	0 to 50°C
Weight	Approx. 360g
Power supply	Three exclusive AAA nickel hydrogen cells, AC adaptor MODEL-770 (5VDC, 1200mA)

## SX Series and RZ Series Comparison Table

	SX Series	RZ Series
Measurement unit	Kgf (gf)/N/Lbf selectable	Kgf/N/Lbf selectable
Measurement item	Track/Peak/+Peak/-Peak	Track/Peak
Accuracy	±0.2% F.S.	
Continuous working time	35hours	30hours
Display update interval	1, 2.5, 10 & 20times/sec. selectable	
Analog output	×	○
RS232C output	×	○
Printer output	○	○
Overload output	○	○
Comparator setting	×	○
External contact hold input	○	○
External print input	○	×
Main body case	Aluminum die casting	ABS resin

## Usage example



MODEL-2256 (Horizontal type)



MODEL-2257 (Vertical type)

# RZ-T Series Portable Torque Gages



The portable torque gages RZ-T Series are especially designed for static measurements such as screw retightening and returning torque, breakage torque due to twisting, etc. With a large and easy-to-see display, simultaneous reading of clockwise and counterclockwise torque, NO-GO-NO judgment function and residual battery capacity display function, the RZ-T Series are state-of-the-art multi-function torque gages. The bit or jig at the top is changed according to the measurement requirements. Measured data may be stored in the memory or output to a connected printer. Two measurement units are available:  $mN \cdot m$  and  $Kgf \cdot cm$ .

## Standard Specifications

Model	RZ-T-20	RZ-T-100
Measurement range	2000mN · m (20Kgf · cm)	10N · m (100Kgf · cm)
Measurement unit	mN · m, Kgf · cm	N · m, Kgf · cm
Min. display unit	1mN · m (0.01Kgf · cm)	0.001N · m (0.01Kgf · cm)
Accuracy	±1% F.S.	
Analog output	±2V/F.S.	
Communication output	USB	
Printer output	SANEI thermal printer, MITUTOYO DIGIMATIC output	
Continuous working hours	30hours after full charge	
Power supply	Dedicated nickel-metal hydride AAA battery x3 Dedicated AC adaptor:MODEL-780(DC5V/1000mA)	

## RZ-S-200

Capacity:2000 N (200 kgf)  
Tension & Compression



※The handle, hook and jig are optional.

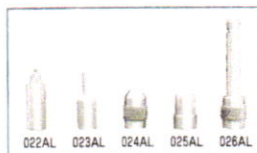
## MODEL-RX-FL-1·RX-FL-2



※The manual stand MODEL-1338 is optional.

## Optional Cables for RX-FL Series

Analog output cable	RX-OP-1
RS232C interface cable	RX-OP-2
MITUTOYO printer cable	RX-OP-3
External control cable	RX-OP-5



The RX-FL Series measures the peak values, bottom values, click ratios, click values, etc. of silicone rubber and dome switches in a single sequence of operation. It has a large screen and stores measured data in memory, which may be printed out or output to a PC after measurement.

## Standard Specifications

Model	RX-FL-1	RX-FL-2
Measurement range	10N (1Kgf)	20N (2Kgf)
Min. display unit	0.001N (0.1gf)	0.01N(1gf)
Measurement unit	N, Kgf, Lbf selectable	
Measurement item	Peak value, Bottom value, Click value & Click ratio	
Accuracy	±0.2%F.S.	
Sampling frequency	5ms (100Hz)	
Display	6-digits LCD, 44 x 44mm	
A/D converter	16-bit, 100kHz	
CPU in use	16-bit, single-chip CPU	
Analog output	±2V/F.S.	
Communication output	RS232C, 38400bps	
Printer output	SANEI thermal printer, MITUTOYO DIGIMATIC output	
GO-NG judgment	Lamp indication & output	
Stand connection output	Overload, zero reset & external input display hold contact	
Continuous run time	Approx. 12hours	
Applicable temperature range	0 to 40°C	
Weight	Approx. 450g	
Power supply	Ncd & AC adaptor MODEL-761 (100VAC) or MODEL-762 (200-240VAC)	

## Vertical & Horizontal Manual Stand

## MODEL-2256



### Standard Specifications

Max. force	500N (50Kgf)
Moving distance	3mm/handle rotation
Stroke	240mm
Weight	(Vertical) Approx. 16Kg
	(Horizontal) Approx. 12Kg
Size	W200xH500xD150mm (Including handle)

## Vertical & Horizontal Motorized Stand

## MODEL-2257

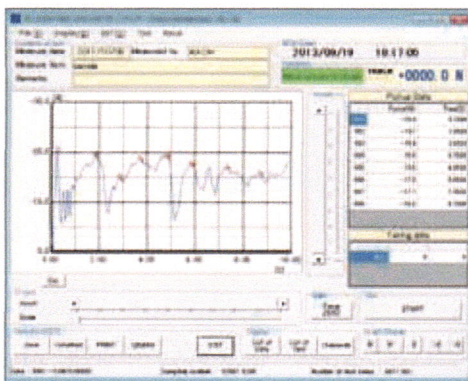


### Standard Specifications

Max. force	500N (50Kgf)
Test speed	10-200 mm/min.
Speed changing	None
Stroke	150mm
Weight (Vertical)	Approx. 20Kg
Size	W215xH380xD235mm
Power supply	100 to 240VAC, single-phase, 0.5A

## Software exclusive for the RZ Series (Option)

## RZ-3000



Main screen

Measurement Condition Setting

Contents:

Measure date: 2011/10/06 Measured by: AIKOH

Measure item: sample

Remarks:

Measure Range:

Force: 0.0, -10.0 N

Time: 0.00, 20.00 sec

TEST START LEVEL: STAR

Threshold: -0.5 N

GraphDisp:

Set test condition screen

LIST OF SAMPLING DATA

	X +1	Y +1	X +2	Y +2	X +3	Y +3
0001	0.00	-1.00	0.00	0.00	0.00	-0.00
0006	0.25	-20.00	0.20	-15.00	0.20	-10.00
0011	0.50	-12.20	0.55	-12.20	0.60	-6.30
0016	0.75	-8.00	0.80	-7.20	0.90	-12.20
0021	1.00	-13.70	1.05	-14.00	1.10	-14.40
0026	1.25	-16.00	1.30	-16.20	1.35	-17.00
0031	1.50	-17.60	1.55	-17.60	1.60	-17.50
0036	1.75	-18.00	1.80	-18.00	1.85	-16.70
0041	2.00	-18.50	2.05	-18.00	2.10	-17.40
0046	2.25	-11.70	2.30	-6.00	2.35	-9.20
0051	2.50	-11.50	2.55	-11.90	2.60	-13.50
0056	2.75	-14.00	2.80	-16.40	2.85	-16.40

Indication Data

Live Data

Process Data

List of data

This is software exclusive for the RZ series to save data to a PC. It reads real-time data into a PC and displays the waveform graph and maximum value. Measurement data can output in CSV files and output CSV files can open onto sheets using Excel. Standard interface is USB output. (USB cable is standard accessory.)

### Recommended Environment

Japanese Windows7  
Memory: 2G bytes or more  
CD-ROM drive for program installation:1  
English OS is accepted