

RZ Series Digital Force Gages



The RZ Series digital force gages are newly developed user-friendly gages that have significantly improved the operability of conventional push-pull gages while keeping their functions.

They come with such convenient functions as data output by use of a newly adopted USB and charging and they also feature quick and easy operations such as changing sampling rates, changing over between three units, printer output and display reversing.

Their shape and buttons conventional concept.

We provide complete warranty for these Models RZ-1 through RZ-100. Since there are many cases that breakage or failure occurs within one year after the delivery to the customer, the first case of breakage, overload trouble, etc. that may occur within one year after the delivery will be repaired by Aikoh free of charge.

(This warranty, however, applies only to the gages used in Japan and does not cover the gages used overseas.)

RZ Series Model List

Model	RZ-1	RZ-2	RZ-5	RZ-10	RZ-20	RZ-50	RZ-100
Rated capacity (R.C.)	10N (1Kgf)	20N (2Kgf)	50N (5Kgf)	100N (10Kgf)	200N (20Kgf)	500N (50Kgf)	1000N (100Kgf)
Indication 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. indication unit	0.001N(0.1gf)	0.01N (1gf)		0.1N (10gf)			

RZ Series Optional Cables

I/O cable	RZ-OP-1	Please purchase the optional cable RZ-OP-1 when you need only the stand control function. Please purchase the optional cable RZ-OP-2 when you need the analog output and comparator output in addition to the stand control function.
I/O cable	RZ-OP-2	
MITUTOYO-made DP-1VR printer cable	RZ-OP-3	
SANEI ELECTRIC-made line thermal printer cable	RZ-OP-4	

RZ Series Standard Accessories



RZ Series Standard Specifications

Unit of measurement	N or (gf) Kgf, N, lb selectable
Accuracy	Within $\pm 0.2\%$ of rated capacity
Allowable overload	120% of rated capacity (Overload alarm at about 110%)
Measurement system	Track mode/Peak hold mode/ Compression-tension peak hold mode selectable
Indication update cycle	1, 2, 5, 10, 20 times/sec. selectable
Sampling cycle	1ms, 5ms, 16ms, 50ms, 125ms, 250ms selectable
Working temperature range	0 to +40°C
Guaranteed temperature range	+5 to +40°C
Continuous working hours	30 hours after full charge
Power supply	Dedicated nickel-metal hydride AAA battery x3 Dedicated AC adaptor: MODEL-780 (DC5V/1000mA) Dedicated USB cable: MODEL-RZ-USB
External dimensions	W68xD40xH232mm
Mass	Approx. 375gs



MODEL-2256 (Vertical type)



MODEL-2257 (Horizontal type)

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)

Desk-top type Testers

MODEL-1308U



※Digital force gage is optional.

Option
Grip mounting plate
MODEL-OJ-P-90
(Needed when using
the tensile test jig.)

A long-stroke automatic test stand dedicated to RZ Series & SX Series. This is a reasonable test stand that is suitable for tests of specimens of large size and long test stroke. When used together with RZ Series or SX Series, such operations are possible as overload monitoring and automatic stop and reversing when the load set in RZ Series or SX Series is reached. For combining this stand with RZ Series or SX Series, please use an optionally available RZ-OP-1/RZ-OP-2 for RZ Series or SX-OP-1 for SX Series.

Standard Specifications

Max. force	1000N (100 kgf)
Test speed	5 to 100 mm/min
Speed changing	Continuous
Stroke	400 mm
Displacement display	None
Distance between test center & column	60 mm
Table size	W250 x D140 mm
Sample table size	W120 x D90 mm, center: M6
Drive motor	DC brushless motor
Driving mechanism	Trapezoidal screw
Driving mechanism guide system	Linear ball bush
Weight	Approx.20 kg
Size	W255 x H810 x D300 mm
Power supply	100 to 240 VAC, single-phase, 0.5 A

MODEL-1349

The MODEL-1349 is a lever type Stand exclusively designed for compression tests. The gage mounting unit is moved down with the lever.



※Digital force gage is optional.

Standard Specifications

Max. force	500 N (50 kgf)
Stroke	43mm/140 degrees
Table size	180 x 100 mm
Max. span	210 mm
Weight	Approx.9kg
Size	W200 x H435 x D235 mm

MODEL-1345

The MODEL-1345 is a manual test stand. The gage mounting head is moved up and down by rotating the handle.



※Digital force gage is optional.

Standard Specifications

Max. force	500 N (50 kgf)
Stroke	43mm (1.75 mm/rotation)
Table size	180 x 100 mm
Max. span	210 mm
Weight	Approx.9kg
Size	W200 x H435 x D235 mm

MODEL-2252R



※Digital force gage is optional.

The MODEL-2252R employs a motor-driven gage mount, which moves to the right and left. Zstage may be adjusted vertically. The work mount table has slotted holes for adjusting the jig position back and forth.

Standard Specifications

Max. force	500 N (50 kgf)
Test speed	10 to 80 mm/min.
Speed changing	In five steps or continuous
Stroke	150 mm
Displacement display	None
Z stage stroke	Adjustable with 40 mm
Distance between test center & Z-axis plane	39 to 79 mm
Table size	W100 x D100 mm
Driving mechanism	Trapezoidal screw
Drive motor	DC brushless motor
Weight	Approx.23 kg
Size	W518 x H228 x D345 mm
Power supply	100 to 240 VAC, single-phase, 0.5 A

Wire Harness Withdrawal Force Tester

MODEL-2254



※Digital force gage is optional.

The MODEL-2254 is a manual test stand for measuring the caulking strength of wire harnesses and so forth. The work mounting head is moved with a lever. Using the AIKOH RZ Series digital gages provides various functions, including data printing and storage in personal computers. The RZ Series digital gages are optional. The MODEL-2254 is supplied with a set of gages jigs.

Standard Specifications

Max. force	500 N (50 kgf)
Stroke	70mm
Chuck width	0 to 10 mm
Weight	Approx.15kg
Size	W525 x H150 x D200 mm

Vertical & Horizontal Manual Stand

MODEL-2256



※Digital force gage is optional.

A vertical and horizontal manual handle type small stand dedicated to RZ Series and SX Series. Capable of measurement up to 500N. The gage mounting part can be moved by turning the handle.

Standard Specifications

Max. force	500 N (50 kgf)
Moving distance	3 mm/handle rotation
Stroke	240 mm
Weight (Vertical)	Approx.16kg
(Horizontal)	Approx.12kg
Size	W200 x H500 x D150 mm (including handle)

Vertical & Horizontal Motorized Stand

MODEL-2257



※Digital force gage is optional.

A vertical and horizontal small automatic stand dedicated to RZ Series and SX Series. This is a reasonable test stand that is suitable for tests of specimens of small size and short stroke. When used together with RZ Series or SX Series, such operations are possible as overload monitoring and automatic stop and reversing when the load set in RZ Series or SX Series is reached. For combining this stand with RZ Series or SX Series, please use an optionally available RZ-OP-1/RZ-OP-1 for RZ Series or SX-OP-1 for SX Series.

Standard Specifications (vertical type)

Max. force	500 N (50 kgf)
Test speed	10 to 200 mm/min.
Speed changing	Continuous
Stroke	150 mm
Displacement display	None
Distance between test center & column	49 mm
Table size	W200 x D120 mm
Drive motor	DC brushless motor
Driving mechanism	Trapezoidal screw
Driving mechanism guide system	Sliding contact
Weight	Approx.20 kg
Size	W215 x H380 x D235 mm
Power source	100 to 240 VAC, single-phase, 0.5 A