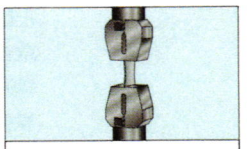
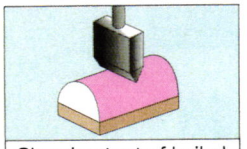
Bench Type Simple Tester

MODEL-1309

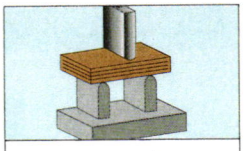
Capacity: 1000N (100 kgf)
Force - Displacement



Materials tensile test



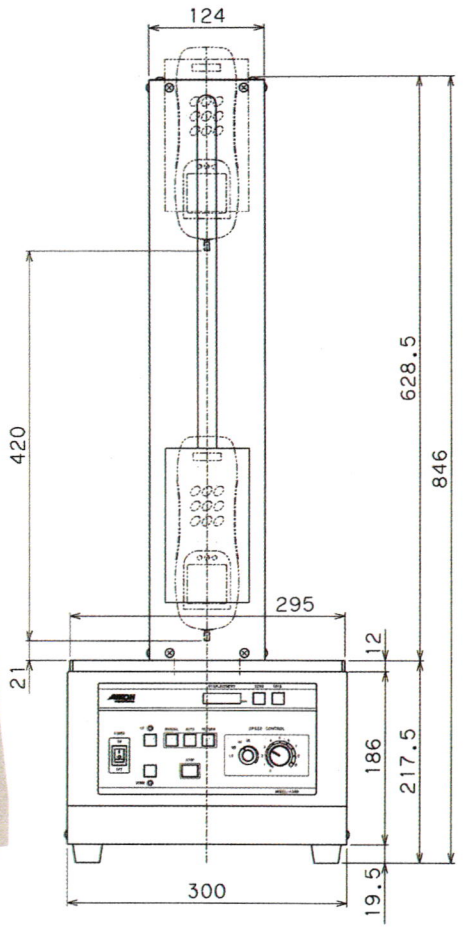
Shearing test of boiled fish paste, hams, etc



Bending test

A small stand for force-displacement measurement dedicated to RX Series. With a displacement resolution of 0.1mm, this stand is suitable for long-stroke tensile/compression tests. A force-displacement FS curve can be drawn on a PC screen by the dedicated software for effective data management.

※RX Series is optional.



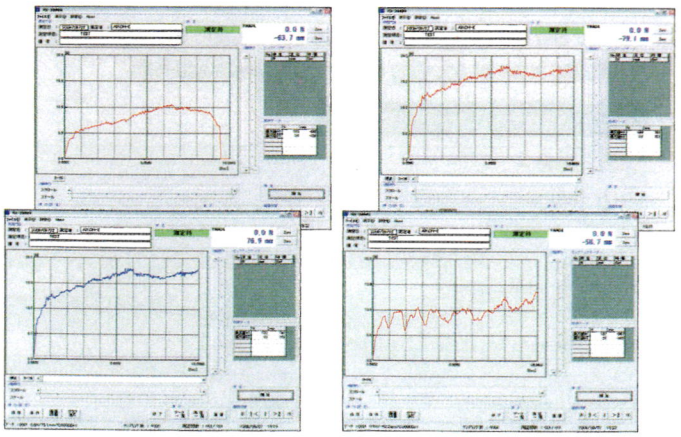
Standard Specificat

Max. force	1000N (100Kgf)
Force display	Depending on RX Series
Test speed	10 to 300 mm/min.
Speed changing	LO: 10mm/min. MD: 100mm/min. HI: 200mm/min. Intended setting is available. VR: 10 to 300mm/min.
Stroke	400mm
Displacement display (Resolution)	0.1mm
Displacement display (Max. display)	±400mm
Table size	295 x 175mm
Weight	Approx. 35Kg
Size	W300 x H850 x D340mm
Power supply	100 to 120VAC/200 to 240VAC

Standard Configuration

Tester:MODEL-1309
Application software for MODEL-1309: RX-2009H
Cable for connecting RX Series: RX-OP-8
RS232C cable

Dedicated application software RX-2009H



※This software is compatible with Windows 7 & Japanese OS.

Major functions

Item	Description	
Data acquisition	Real time force/displacement acquisition, graph drawing	
	Data save/batch save	Dedicated format/CSV format
Data file processing	Data load/batch load	Dedicated format
Graph overlap display	Number of registration	100
Printing	Graph cut sheet print	Cut sheet horizontal: 1graph
	Graph continuous print	Cut sheet horizontal: 1graph
		Cut sheet vertical: 2graphs
		Cut sheet horizontal: 4graphs
		Cut sheet vertical: 8graphs
	Pick up registered data	
Pick up registered data	Number of registration	100/measurement
Measurement list display	Representative value detection	Force max./min./average
	All measurements processing	Force max./min./average
Graph data list display	Time/displacement/force data values	
Stand control	Stand start/stop during test	
USB serial conversion	I-O DATA: RSAQ6 (Recommended/option)	

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

※Digital force gage is optional.

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.

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

※Digital force gage is optional.

MODEL-1345

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

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

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

※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

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

※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 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-1 for RZ Series or SX-OP-1 for SX Series.

Standard Specifications (vertical type)

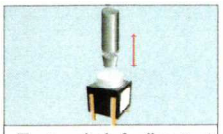
Max. force	500 N (50 kgf)
Test speed	10 to 200 mm/min.
Speed changing	Continuous
Stroke	150 mm
Displacement display	None
Distance between test center & column	49 mm
Table size	W200 x D120 mm
Drive motor	DC brushless motor
Driving mechanism	Trapezoidal screw
Driving mechanism guide system	Sliding contact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

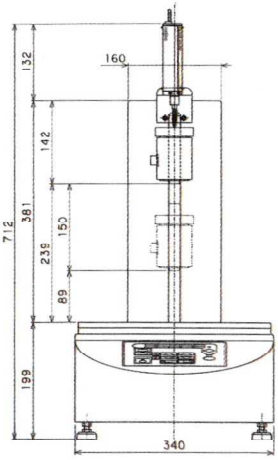
Small Size Desk Top Force Tester

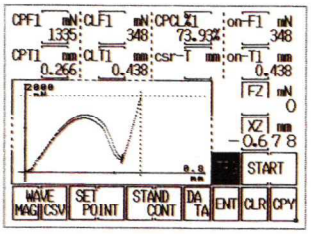
MODEL-1305VC

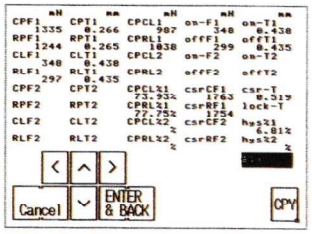
Capacity: 200 N (20 kgf)
Force - Displacement


Touch panel load measurement


Tact switch feeling test







This is a small force tester designed for compression and tensile force tests up to 200N.It consists of a main unit and MODEL-1016C amplifier and is capable of testing feeling of such switches as tact switches and rubber switches by using an optionally available CF card V-103A.

Standard Specifications

Max. force	200N(20kgf)
Test speed	2 to 60mm/min.
Speed changing	In five steps or continuous
Stroke	150mm
Displacement display	Provided
Detector	Linear gauge
Display resolution	0.001mm
Display accuracy	0.05mm
Max. display value	30.000mm
Distance between test center & column	77mm
Table size	W330×D150mm
Drive motor	DC brushless motor
Driving mechanism	Trapezoidal screw
Driving mechanism guide system	Linear ball bush
Weight	Approx.32kg
Size	W340×H580×D430mm
Power supply	100 to 240 VAC,single-phase,0.5A

Measurement point

	Setting
Peak Advance value	(CPF)ForceN・(CPT)Displacement mm
Bottom Advance value	(CLF)ForceN・(CLT)Displacement mm
Peak Return value	(RPF)ForceN・(RPT)Displacement mm
Bottom Return value	(PLF)ForceN・(RLT)Displacement mm
Force difference	CPF-CLF or CPF-RLF
Click rate	(CPF-CLF)/CPFx100 or (CPF-RLF)/CPFx100
Contact ON	ForceN・Displacement mm
Contact OFF	ForceN・Displacement mm
Cursor position	ForceN・Displacement mm

When using CF card (V-103A)

On/Off Point Detector

For detecting On/Off points of silicon rubber switches

MODEL-0219

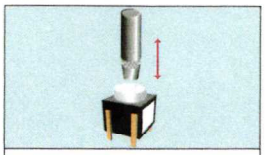
Standard Specifications

Input range	1, 10 & 100 kΩ (Selectable ranges)	
Setting device	10-rotation helical potentiometer with 500 even division scale	
Setting accuracy	±0.5% in each resistance range (including non-linearity & hysteresis)	
Output	(1) Analog voltage	0 to 10V in each resistance range,load resistance:10kΩ
	(2) Monitor lamp	Red LED (Lit below set value.)
	(3) Open collector	Withstand voltage:35V max,suction current:50mA max.
		ON voltage:1.5V max.
Response delay time	ON: 0.5 mS or less - Until open collector output goes on after lowering below set value	
	OFF: 2mS or less - Until turning off open collector output after exceeding set value	
Temp.setting	0 to 40°C, no dew condensation	
Power supply	12 VDC (including 9 to 16.5 V ripples), 300 mA	
Size	140W×45.5H×140Dmm(including projections),approx.450g(not including AC adapter)	

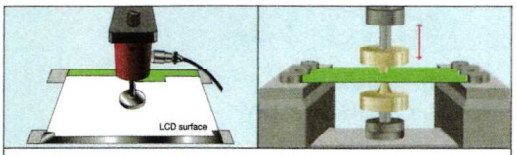
Precision force tester

MODEL-1605VC / MODEL-1605VCL

Capacity: 500N (50Kgf)
Precison force-Displacement

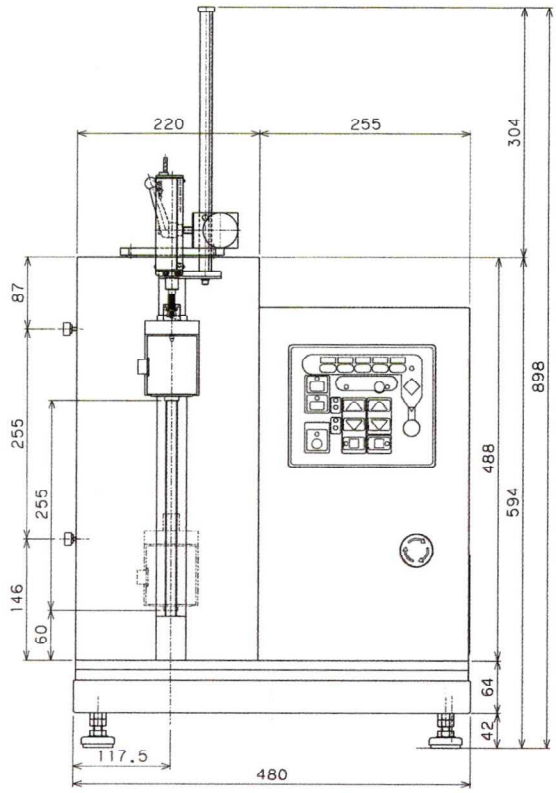


Tact switch feeling test



Bending test at preset displacement

* Jigs are not included. (Optional)



MODEL-1605 Series are highly versatile force testers capable of high precision tests.These testers can perform force-displacement tests under various conditions.They are equipped with such functions as detailed motion setting required for various force tests and pickup data management.They are suitable for testing connector mating/unmating, metal characteristics and penetration.

Standard Specifications

Model	1605VC	1605VCL
Max. force	500N (50Kgf)	
Test speed	0.5 to 600mm/min.	
Speed changing	In fifteen steps or continuous	
Stroke	250mm	
Displacement display	Provided	
Detector	Rotary encoder	Linear gauge
Display resolution	0.01mm	0.001mm
Display accuracy	0.05mm	
Max. display value	±250.00mm	±30.000mm (When using linear gauge)
Distance between test center & column	100mm	
Table size	W475 x D150mm M10x1.5	
Driving mechanism	Ball screw	
Drive motor	Servo motor	
Weight	Approx. 50Kg	
Size	W480 x H578 x D375mm	W480 x H882 x D375mm
Power supply	100 to 240VAC, single-phase, 5A	

Standard Configuration

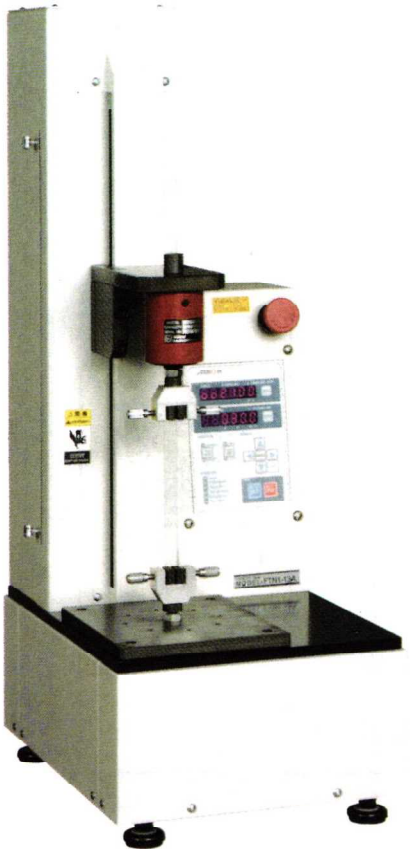
MODEL-1605VC
Tester: MODEL-1605VC
Measuring amplifier: MODEL-1016C
Load cell: 1pc (Up to 500N)

MODEL-1605VCL
Tester: MODEL-1605VCL
Measuring amplifier: MODEL-1016C
Load cell: 1pc (Up to 500N)
Linear gauge: 1pc

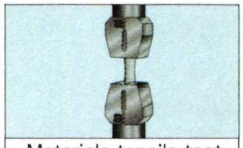
Desk-top type Force Tester

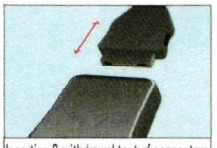
FTN 1-13A

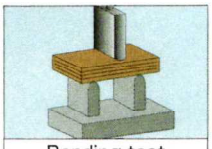
Capacity: 500N/2kN (50Kgf/200Kgf)
Force-Displacement

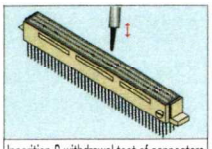


※Jigs are not included. (Optional)

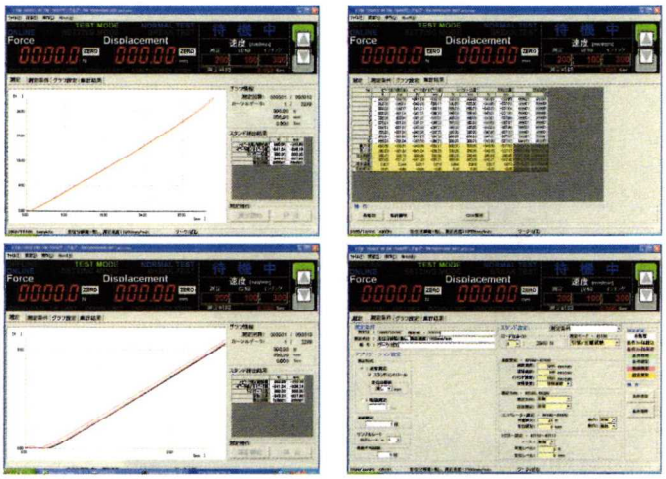

Materials tensile test


Insertion & withdrawal test of connectors


Bending test


Insertion & withdrawal test of connectors

This is an integrated force tester with a built-in amplifier for the compression and tensile force tests up to 2kN (200Kgf).
Two measurement speeds are available according to the load cell capacity (300mm/min. for 500N, and 125mm/min. for 2kN).
A rotary encoder is provided for displacement detection.
7-segment LEDs are in use for data display.
A software program is provided as the standard for easy tester operarion and result output.
Test conditions can easily be set by anybody.



Features

- The max. allowable test force is 2kN regardless of its compact size.
- Two measuring speeds 5 to 300 mm/min. (500N) and 5 to 125 mm/min. (2kN) are provided.
- Compression, tension and breakdown tests are possible.
- The resolution is high at 0.1N for the force test and 0.01mm for the displacement.
- The power supply is 100VAC to 240VAC for worldwide uses.
- Simply operable personal computer software is provided as the standard.
- The load cell allows 3-ch calibration. (Optional feature)

Standard Specifications

Item			FTN1-13A	
Max. force			500N (50Kgf)	2kN (200Kgf)
Max. speed range			5 to 300mm/min.	5 to 125 mm/min.
Moving speed range (inching & return)			5 to 300mm/min.	
Speed resolution			0.1mm/min.	
Resolution	Force	5000display	4-digit display	
		2000display	4-digit or 5-digit display	
		1000display	4-digit or 5-digit display	
	Displacement		0.01mm	
Accuracy	Force		3000 Series: ±0.2% F.S./UP Series: ±0.3% F.S.	
	Displacement		±0.2mm	
Driving block	Motor type		Stepping motor	
	Motor control system		Pulse	
Applicable load cell			UP Series & 3000 Series (Up to 2kN)	
Detector			Rotary encoder	
Input/output	Digital input/output		USB (For connecting to external PC)	
	Analog input/output		Force (±10V/10bits)	
Table size			Approx. 174 x 200mm	
Emergency stop			Installation on main body, driving block power off	
Outside dimensions			W300 x H820 x D400mm	
Weight			Approx. 40Kg	
Power supply			100 to 240VAC, single-phase, 3A	

Performances

Item	FTN1-13A
Measurement start trigger	Force/Displacement (LV setting available)
Comparator	Force (Return/Stop, with a setting)
	Displacement (Return/Stop, with a setting)
Automatic zero	Upon receiving measurement start trigger
Manual zero return	Zero resetting by key operation
Breakdown	Breaking position detection (Detection sensitivity settable)
Automatic return	Comparator/hardware limit (with speed setting)
Data detection	Measurement positive peak detection (Force/displacement)
	Measurement negative peak detection (Force/displacement)
	Turn-back point (Force/displacement)
	Measurement start point (trigger position) (Force/displacement)
Automatic repetition of measurement	1 to 999999 times
Real-time data output	Digital data output

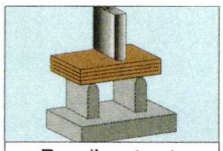
Softwares

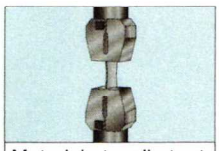
MODEL	FTN-3000	FTN-3001
	(Packed version)	(Full spec version)
Computer	DOS/V compliant IBM/PC compatible	
Operation system (OS)	WindowsXP Professional Service Pack2, Pack3 or later	

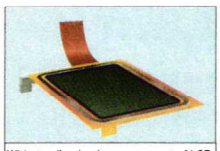
Precison force tester

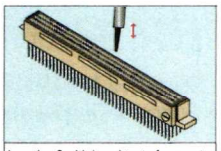
MODEL-1310VC Series

Capacity: 2kN (200Kgf)
Force-Displacement

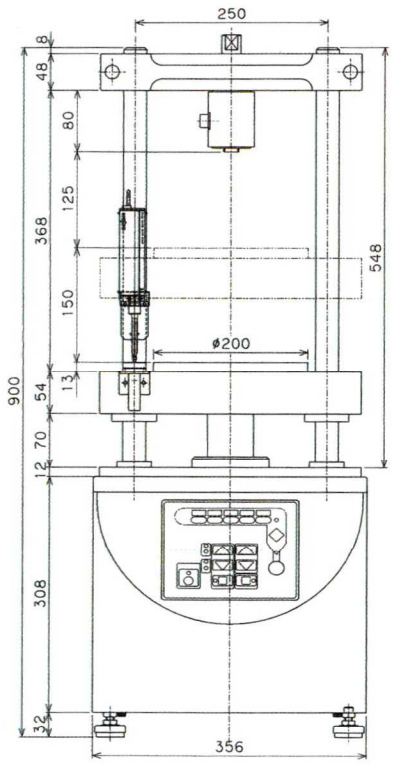

Bending test


Materials tensile test


Withstanding load measurement of LCD


Insertion & withdrawal test of connector

※Jigs are not included. (Optional)



Standard Configuration

MODEL-1310VC
Tester: MODEL-1310VC
Measuring amplifier: MODEL-1016C
Load cell: 1pc (Up to 2kN)

MODEL-1310VCW (Wide range)
Tester: MODEL-1310VCW
Measuring amplifier: MODEL-1016C
Load cell: 1pc (Up to 2kN)

MODEL-1311VC
Tester: MODEL-1311VC
Measuring amplifier: MODEL-1016C
Load cell: 1pc (Up to 2kN)

MODEL-1311VCW (Wide range)
Tester: MODEL-1311VCW
Measuring amplifier: MODEL-1016C
Load cell: 1pc (Up to 2kN)

These are all-round desktop type precision force testers for force and displacement measurements up to 2kN (200Kgf). When combined with MODEL-1016C amplifier, they can measure two-point data of force-displacement and breaking force-displacement.
A force-displacement graph is shown on an LCD panel in real time.
The two-column type is highly rigid, which makes these testers suitable for highly precise testing.

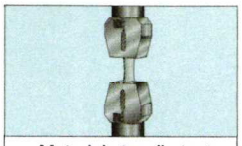
Standard Specifications

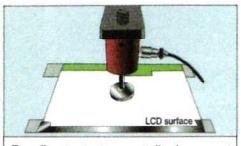
Model	1310VC	1310VCW (Wide range)	1311VC	1311VCW (Wide range)
Max. force	2kN (200Kgf)			
Test speed	5 to 125mm/min.	0.2 to 250mm/min.	5 to 125mm/min.	0.2 to 250mm/min.
Speed changing	In five steps or continuous			
Stroke	150mm			
Displacement display	Provided			
Detector	Rotary encoder		Linear gauge	
Display resolution	0.01mm		0.001mm	
Display accuracy	0.1mm		0.05mm	
Max. display value	±150.00mm		±30.000mm (Using linear gauge)	
Column length	548mm			
Column interval	250mm			
Table size	ϕ200mm CenterM10 x 1.5			
Driving mechanism	Ball screw			
Drive motor	DC brushless motor	Servo motor	DC brushless motor	Servo motor
Weight	Approx. 41Kg			
Size	W356 x H900 x D314mm			
Power supply	100 to 240VAC, single-phase, 1A			

Large Size Precision Force Testers

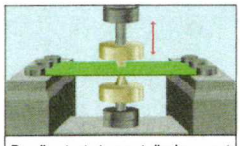
MODEL-1840VCT

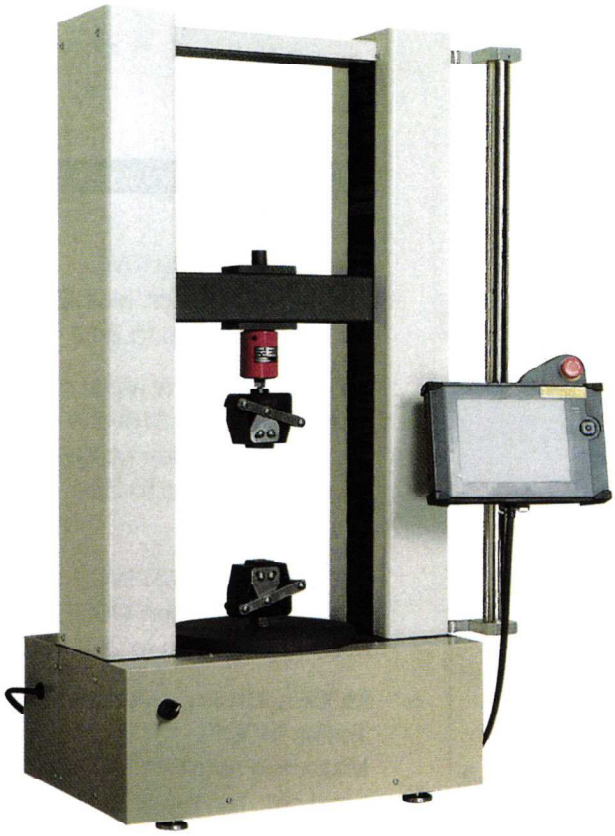
Capacity: 2 to 50 kN (200 to 5000 kgf)
Force - Displacement


Materials tensile test



Bending test at preset displacement


Bending test at preset displacement



*Jigs are not included. (Optional)

The MODEL-1840VCT is a large-size precision force tester designed for compression and tensile force tests up to 200 to 5000Kgf (2 to 50kN).
The test speed and control system conditions may be set on a touch panel.
In combination with the MODEL-1016C amplifier, the basic testparameters including the travel distance, repetition frequency and so forth may be set on the amplifier screen and measurement results are displayed on a LCD.
The stroke may be extended and the pitch of columns may be changed according to test sample sizes of customers.

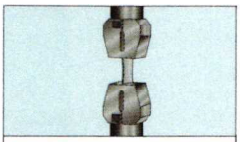
Standard Specifications

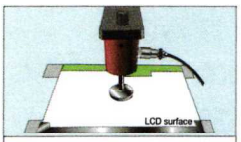
Model	1840VCT/200	1840VCT/500	1840VCT/1000	1840VCT/2000	1840VCT/5000
Max. force	2kN (200Kgf)	5kN (500Kgf)	10kN (1000Kgf)	20kN (2000Kgf)	50kN (5000Kgf)
Test speed	0.1 to 600mm/min.		0.1 to 300mm/min.		0.1 to 250mm/min.
Speed changing	Free setting				
Stroke	700 mm		1000 mm	950 mm	
Displacement display	Provided				
Detector	Rotary encoder				
Display resolution	0.01 mm				
Display accuracy	0.1 mm				
Max. display	±700.00 mm		±1000.00 mm	±950.00 mm	
Column interval	350 mm				400 mm
Table size	300 mm dia., center M20 x 1.5				□290 mm M20 x 1.5
Drive motor	Servo motor				
Driving mechanism	Ball screw				
Driving mechanism guide	Linear ball bush				
Size	W600xH1340xD580 mm		W600xH1714xD580 mm	W630xH1685xD610 mm	W720xH1714xD540 mm
Weight	Approx.175kg	Approx.185kg	Approx.210kg	Approx.290kg	Approx.390kg
Power supply	100VAC, single-phase, 5A	100VAC, single-phase, 10A		200VAC, single-phase, 10A	200VAC, three-phase, 10A

Large Size Precision Force Testers

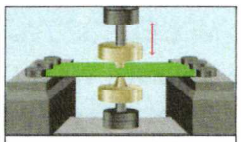
MODEL-1840VC

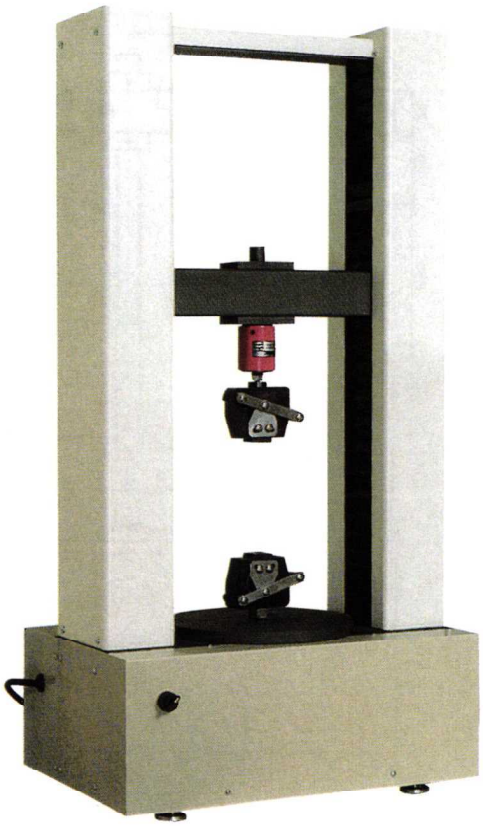
Capacity: 2 to 50 kN (200 to 5000 kgf)
Force - Displacement


Materials tensile test



Bending test at preset displacement


Bending test at preset displacement



*Jigs are not included. (Optional)

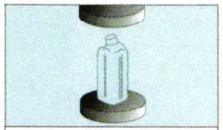
The MODEL-1840VC is a large-size precision force tester designed for compression and tensile force tests up to 200 to 5000Kgf (2 to 50kN).
In combination with the MODEL-1016C amplifier, it displays measurement results on a LCD.
It employs a ball screw feeding mechanism and a servo motor for stable and wide-range test speed.
The stroke may be extended and the pitch of columns may be changed according to test sample sizes of customers.

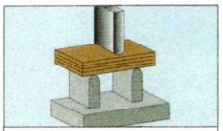
Standard Specifications

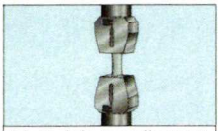
Model	1840VC/200	1840VC/500	1840VC/1000	1840VC/2000	1840VC/5000
Max. force	2kN (200Kgf)	5kN (500Kgf)	10kN (1000Kgf)	20kN (2000Kgf)	50kN (5000Kgf)
Test speed	1 to 600 mm/min.		1 to 300 mm/min.		1 to 250 mm/min.
Speed changing	In five steps or continuous				
Stroke	700 mm		1000 mm	950 mm	
Displacement display	Provided				
Detector	Rotary encoder				
Display resolution	0.01 mm				
Display accuracy	0.1 mm				
Max. display	±700.00 mm		±1000.00 mm	±950.00 mm	
Column interval	350 mm				400 mm
Table size	300 mm dia., center M20 x 1.5				□290 mm M20 x 1.5
Drive motor	Servo motor				
Driving mechanism	Ball screw				
Driving mechanism guide	Linear ball bush				
Size	W600 x H1340 x D400 mm		W600 x H1714 x D400 mm	W630 x H1655 x D410 mm	W720 x H1714 x D540 mm
Weight	Approx.160 kg	Approx.170 kg	Approx.190 kg	Approx.270 kg	Approx.350 kg
Power supply	100VAC, single-phase, 5A	100VAC, single-phase, 10A		200VAC, single-phase, 10A	200VAC, three-phase, 10A

Large Size Desk Top Type Force Testers

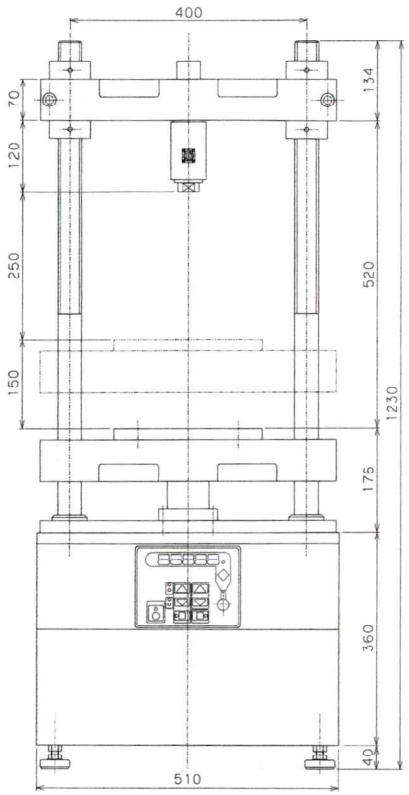
MODEL-1320VC/1321VC
Capacity: 10kN (1000 kgf)
MODEL-1322VC/1323VC
Capacity: 5kN (500 kgf)
MODEL-1324VC/1325VC
Capacity: 20kN (2000 kgf)


Buckling test


Bending test


Materials tensile test

*Jigs are not included. (Optional)



These models are large size testers designed for compression and tensile force tests up to 500 to 2000Kgf (5 to 20kN).
They use the MODEL-1016C amplifier and display the measurement results on LCD panels.
They are available in force measurement only types and force-displacement measurement types, six types in all,whose measurement force are 500Kgf, 1000Kgf and 2000Kgf.
With large test stands, 800mm long columns, and 360mm column interval, these are suitable to measurement of large parts.
The components and specifications may be changed according to test sample sizes of customers.

Standard Specifications

Model	1320VC	1321VC	1322VC	1323VC	1324VC	1325VC
Max.force	10 KN (1000 kgf)		5 kN (500 kgf)		20 KN (2000 kgf)	
Test speed	2 to 60 mm/min.				2 to 40 mm/min.	
Speed changing	In five steps or continuous					
Stroke	150mm					
Displacement display	None	Provided	None	Provided	None	Provided
Detector		Rotary encoder		Rotary encoder	–	Rotary encoder
Display resolution		0.01mm		0.01mm		0.01mm
Display accuracy		0.1mm		0.1mm		0.1mm
Column length	800mm					
Column interval	360mm					
Table size	250 mm dia., center M20 x 1.5					
Drive motor	DC brushless motor					
Driving mechanism	Ball screw					
Driving mechanism guide	Sliding contact					
Weight	Approx. 120 kg					
Size	510 W x 1220 H x 400 D mm					
Power supply	100 to 240 VAC, single-phase, 5 A					

Horizontal Force Tester

MODEL-2152VCE

Capacity: 500N (50 kgf)
Force -Displacement

Standard Specifications

Max. force	500N (50 kgf)
Test speed	10 to 80 mm/min.
Speed changing	In five steps or continuous
Stroke	150 mm
Displacement display	Provided
Detector	Rotary encoder
Display resolution	0.01 mm
Display accuracy	0.1 mm
Z-axis stroke	40 mm
Distance between test center & Z-axis plane	77.5 to 117.5 mm
Table size	W100 x D100 mm
Drive motor	DC brushless motor
Driving mechanism	Trapezoidal screw
Driving mechanism guide	Linear ball bush
Weight	Approx.23kg
Size	W518 x H314 x D345 mm
Power supply	100 to 240 VAC,0.5A

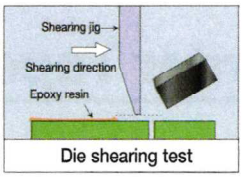
The MODEL-2152VCE is a horizontal force tester designed for compression and tensile force tests up to 50 kgf (500 N) as well as breaking tests and force -displacement correlation measurement of various electronic parts. It uses the Model-1016C amplifier and displays the measurement results on a LCD panel.

Standard Configuration

- Tester: MODEL-2152VCE
- Measuring amplifier MODEL-1016C
- Load cell:1pc

Small Size Electronic Parts Strength Evaluation Tester (IC Strength Tester)

MODEL-2252RDH



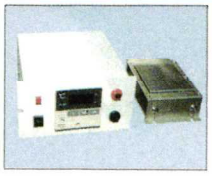
Die shearing test

Standard Specifications

Max. force	200N(20kgf)
Test speed	10 to 80 mm/min.
Speed changing	In five steps or continuous
Stroke	150 mm
Displacement display	None
Z-axis stroke	40 mm
Distance between test center & Z-axis plane	39 to 79 mm
Table size	W90 x D90 mm
Drive motor	DC brushless motor
Driving mechanism	Trapezoidal screw
Driving mechanism guide	Linear ball bush
Weight	Approx.23kg
Size	W518 x H228 x D345 mm
Power supply	100 to 240 VAC,single-phase,0.5A

The MODEL-2252RDH is designed to measure the adhesion strength of electronic parts mounted on horizontal boards. The sample fixing position may be adjusted in the Z direction. The digital force gage RZ-20 is mounted on the force measuring side and the shearing jig is mounted at the top. It is also possible to mount the hot plate (HTP-OP-1)on the sample fixing side. The force measuring unit of this tester moves to the right and left. It stores measured data,which may be printed or read in a PC.

Hot Plate for Thermel Load Tests (Common) (HTP-OP-1)



Specifications

- Plate area: 60mmx60mm
- Heating accuracy: Normal temperature to 300℃
- Temperature range: Set temperature±10℃

Standard Configuration

- Tester: MODEL-2252RDH
- RZ-20:1pc
- Shearing jig:1pc (2mm,4mm or 8mm)

Options

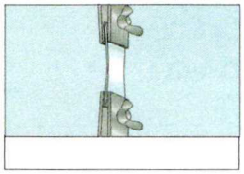
- Hot Plate
- Printer

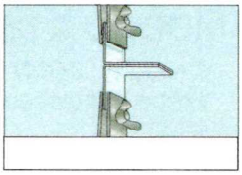
Small Size Separation Evaluation Tester

MODEL-1308UH

Capacity: 200N (20 kgf)

※The digital force gage is not included (optional)

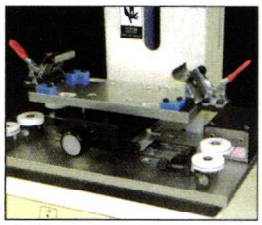




The MODEL-1308UH employs a motor-driven gage mounting head, which moves up and down. The gage mounting head may be returned automatically by the action of a limit switch after completion of a test. The MODEL-1308UH offers other various functions, including data output function. Refer to the catalogs of the RZ series digital force gages. Use our various jigs and accessories to extend the confines of tests. Refer to the pages of jigs and grips.

Standard Specifications

Max. force	200 N (20 kgf)
Test speed	10 to 300 mm/min.
Stroke	400 mm
Table size	150 x 140 mm
Weight	Approx. 20 kg
Size	W255 x H810 x D300 mm
Power supply	100 to 240 VAC.single-phase0.5A



90° separation test jig
(Option installed)

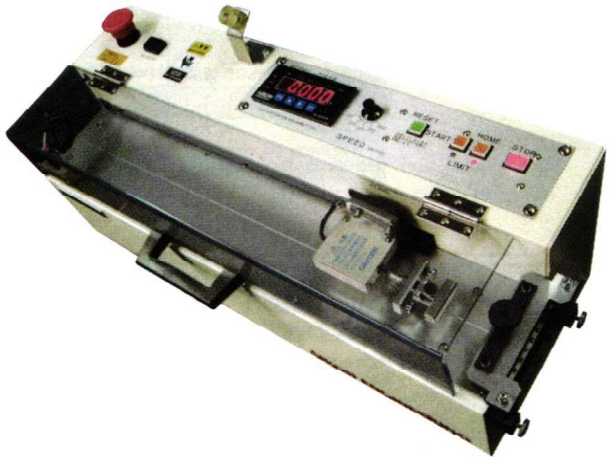
Applicable Tests

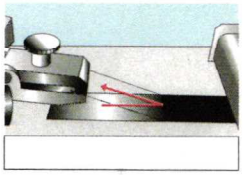
Separation tests at 90° and 180° (JIS-C 6481)
Various breakdown tests
Various non-destructive evaluation tests of parts
Penetration elasticity tests of fruits, etc.
Stress relief measurements of foods
Shearing tests
Bending tests

Embossed Carrier Tape Separation Tester

MODEL-2165P

Separation force: 5N (500 gf)





The MODEL-2165P measures adhesion of various types of tapes. It conforms to the JIS and EIAJ Standards. The results can be saved in a PC using the dedicated software. (This software is compatible with WindowsXP & JapaneseOS.)

Standard Specifications

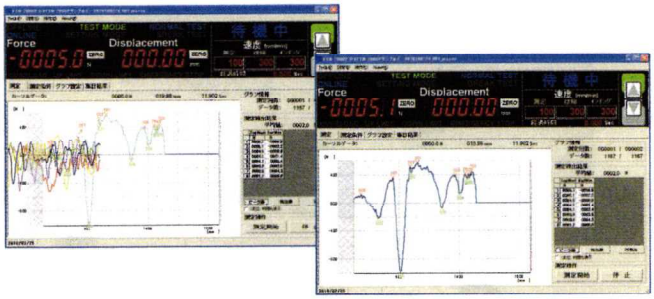
Separation force	5 N (500 gf)
Resolution	0.001 N (0.1 gf)
Separation angle	165 to 180 degrees(with five scales)
Separation speed	50, 100, 200, 300 & 400 mm/min.
Effective length	400 mm
Applicable length	88 mm
Weight	Approx. 16.5 kg
Size	W630 x H300 x D260 mm
Power supply	100 VAC / 220 VAC, 1A

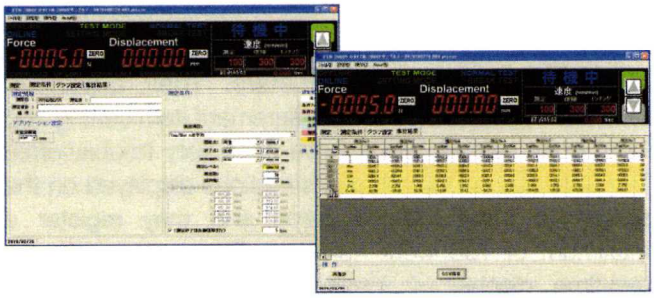
Adhesion Tester

FTN4-15A

Capacity: 50 N (5 kgf)
Force - Displacement

This is a low priced adhesion tester based on FTN1 - 13A with only the mechanism changed. The maximum test speed has been increased to 1000 mm/min to meet needs of high-speed tests. In addition, a jig for 90-degree peeling that meets testing in accordance with JIS Z 0237 and software FTN-2008P dedicated to adhesion test are also available.





Standard Specifications

Max. force		50 N (5 kgf)
Test speed range		5 to 1000 mm/min.
Moving speed range		5 to 1000 mm/min. (inching & return)
Speed resolution		0.1 mm/min.
Resolution	Force	0.01 N (50.00)
	Displacement	0.01 mm
Accuracy	Force	3000 Series: ±0.2% F.S. UP Series: ±0.3% F.S.
	Displacement	±0.5 mm
Effective stroke		100 mm/min. (with 90-degree peeling jig installed)
Drive unit		Stepping motor
Applicable load cell		UP, M-3000 Series
Detector		Rotary encoder (2000 P/R)
Input/output	Digital input/output	USB (for connection to external PC)
	Analog input/output	Force (±10V)
Weight		Apporx. 35 kg
Size		W300 x D400 x H820 mm
Power supply		100 to 240 VAC, Single-phase, 3A

Optional jig

Applicable standard	JIS Z 0237
Peeling method	90-degree peeling
Movable range (stroke)	100 mm (Standard: 85 mm)
Peeling point synchronizing method	Moving amount synchronization with wire & pulley
Test plate	50 x 125 x T2 or larger, SUS 304 (Surface roughness specified)
Specimen size	25 x 250
Safety measure	Safety cover on with & pulley and other areas

Software

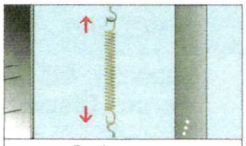
Name	FTN-2008P
Function	Display of results, calculation (required numeric values, max., average, etc.), save, F-S graph display (real time, results, save data)

- **Peak/bottom automatic acquisition: 50 maximum**
- **Peak/bottom display method: In the order of time or peak values**
- **Processing of multiple samples: (Simplified statistics)**
- **Set point measuring function: (JIS compatible)**
- **This software is compatible with WindowsXP & JapaneseOS.**

Touch Panel Type Spring Testers

MODEL-SHRⅢSeries

SHRⅢ-1	Capacity:10 N(1 kgf)
SHRⅢ-5	Capacity:50 N(5 kgf)
SHRⅢ-10	Capacity:100 N(10 kgf)
SHRⅢ-50	Capacity:500 N(50 kgf)



Spring test

The MODEL-SHR Ⅲ Series testers are the newest type high-performance spring testers. Their advanced functions facilitate various measurement item setting and input point setting, which have been very troublesome. The user only has to follow instructions displayed on the screen to input various items and may register a maximum of 100 work numbers. The screen provides real-time display of measured data and dispersion distribution bar graphs. It is possible to set a maximum of ten each measurement stages for both the normal spring tests and length measurement according to preset loads.

Outline of SHRⅢ Type Spring Tester

Test options	Tensile test & compression test
Screen display	Test data, totalization function, work No. registration (100 Nos.), & dispersion distribution bar graph
Unit options	Kgf (N, lb)
Operation options	Load measurement acc. to set length,measurement acc. to set load Max. number of measurement stages: Ten Max. stop time in each stage: 999.9 sec.
Input type for each stage setting	Teaching input, ten-key pad input, & step input
Printing function	Automatic, manual, Note input printing, & hard copy
Tolerance setting	Two types selectable: ± and %
Touch panel	5.7 TFT color LCD

Performances

Length resolution	0.01mm
Variable speed	1 to 600 mm/min.
Automatic distortion correction	Corrects rigid distortion automatically
Automatic origin setting function	Displays the data where the origin was set last
Force resolution	1/100000 max.
External connection	USB port
Protective functions	Overload stop function, & emergency stop button

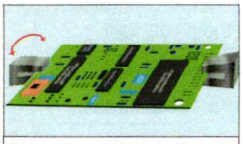
Standard Specifications

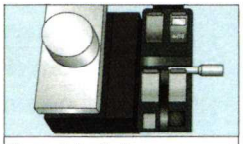
Item	SHR Ⅲ-1	SHR Ⅲ-5	SHR Ⅲ-10	SHR Ⅲ-50
N force capability	10 N (1kgf)	50 N (5kgf)	100 N (10kgf)	500 N (50kgf)
N minimum reading	0.0001 N (0.01gf)	0.001 N (0.1gf)	0.001 N (0.1gf)	0.01 N (1gf)
Unit of measurement	kgf (N, lb, inch for length measurement)			
Test speed	1 to 600 mm/min.			
Max. measurable length	225 mm			
Min. length reading	0.01 mm			
Compression plate diameter	60 mm dia.			
Hook for tensile test	1 stage	2 stages		
Weight	Approx. 45kg			
Size	W450 x H565 x D345 mm			
Power supply	100 to 240 VAC			

Torque Angle Testers

MODEL-5125VC/VCW (Wide range)

Capacity: 5N • m (0.5Kgf • m)
Torque-Angle


Twisting test of board with parts


Power window feeling measurement

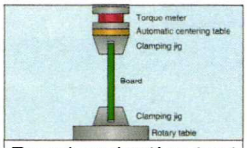
These are designed for complicated evaluation tests of various electronic, mechanical and other parts, including the torque angle tests, sliding torque tests, repetitive reducing torque measurement and so forth. The table in lower position rotates. The span from the work is adjusted with the torque meter mount in upper position, which is moved up and down manually. Select the proper torque meter and jig of the torque suitable to measurement. Test data and test waveform are displayed on the screen. In repetitive tests, waveforms are overwritten and displayed on the screen. Data are stored in the amplifier and printed.

Standard Specifications

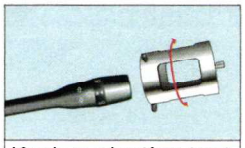
Model	5125VC	5125VCW (Wide range)
Max. output torque	5N • m (0.5Kgf • m)	
Test speed	0.2 to 6RPM	0.1 to 20RPM
Speed changing	In five steps or continuous	
Angle setting	0 to 340° or continuous	
Displacement display	Provided	
Detector	Rotary encoder	
Display resolution	0.1 degree	
Display accuracy	1 degree	
Z-axis stroke	210 mm	
Distance between rotational center & column	110 mm	
Table size	150 mm dia.	
Driving mechanism	Ball speed reducer	
Drive motor	DC brushless	Servo motor
Weight	Approx. 55Kg	
Size	W350 x H767 x D475 mm	
Power supply	100 to 240VAC, single-phase, 0.5A	100 to 240VAC, single-phase, 5A

MODEL-5125VCT

Capacity: 5N • m (0.5Kgf • cm)
Torque-Angle



Board evaluation test


Knob evaluation test

The MODEL-5125VCT designed for complicated evaluation tests of various electronic, mechanical and other parts, including the torque angle tests,sliding torque tests, repetitive reducing torque measurement and so forth. Various test conditions may be set on a touch panel. The table in lower position rotates. The span from the work is adjusted with the torque meter mount in upper position, which is moved up and down manually. Select the proper torque meter and jig of the torque suitable to measurement. Test data and test waveform are displayed on the screen. In repetitive tests, waveforms are overwritten and displayed on the screen. Data are stored in the amplifier and printed.

Standard Specifications

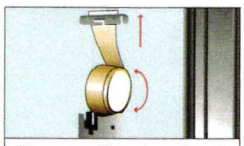
Max. output torque	5N • m (0.5Kgf • cm)
Test speed	0.1 to 20RPM
Speed changing	Free setting
Angle setting	0 to 340° or continuous
Displacement display	Provided
Detector	Rotary encoder
Display resolution	0.1 degree
Display accuracy	1 degree

Z-axis stroke	210 mm
Distance between rotational center & column	110 mm
Table size	150 mm dia.
Driving mechanism	Ball speed reducer
Drive motor	Servo motor
Weight	Approx. 55Kg
Size	W350 x H767 x D475mm
Power supply	100VAC, single-phase, 3A

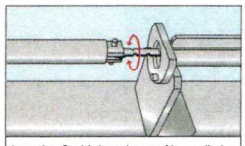
Torque Angle Testers

MODEL-5401VC-50/200

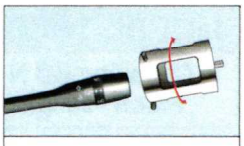
Capacity: 5N・m/20N・m
(0.5Kgf・m/2Kgf・m)
Torque-Angle

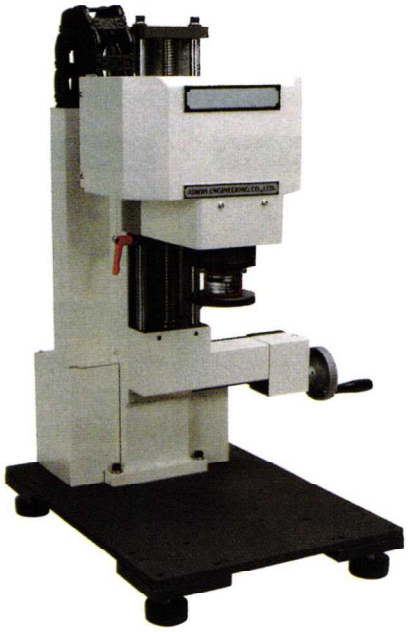


Tape adhesion test



Insertion & withdrawal test of key cylinder





The MODEL-5401VC-50 and MODEL-5401VC-200 are capable of torque angle measurement up to 340degrees. Samples are fixed in the lower positions, and the torque meter in the upper positions rotate. The optional X-Y tables or jigs are installed on the sample measuring side. Attaching the automatic centering table to the torque meter enables smooth adjustment of the torque meter center to the work center. This function is convenient for samples that may not be rotated.

Standard Specifications

Model	5401VC-50	5401VC-200
Max. output torque	5N・m (0.5Kgf・m)	20N・m (2Kgf・m)
Test speed	0.2 to 1RPM	
Angle setting	0 to 340 degree	
Displacement display	Provided	
Detector	Rotary encoder	
Display resolution	0.1 degree	
Display accuracy	1 degree	
Z-axis stroke	140 mm	
Distance between rotational center & column	120 mm	
Table size	W350 x D320 mm	
Driving mechanism	Pully transmission mechanism	
Drive motor	DC brushless motor	
Weight	Approx. 60Kg	
Size	W490 x H742 x D480 mm	
Power supply	100VAC, single-phase, 0.5A	100VAC, single-phase, 1A

Large Size Torque Tester

MODEL-5127VC/500-5000

Capacity: 50N・m to 500N・m
(500kgf・cm to 5000Kgf・cm)
Torque-Angle

The MODEL-5127VC Series are designed to measure correlation of the torque angles of large automobile parts,electronic parts and so forth. Jigs or chucks are set on rotary tables in lower positions. Spans from works are adjusted with the cross head in upper positions, which are moved up and down by motors. Torque meters is fixed to the cross head. The MODEL-5127VC Series employ the MODEL-1016C amplifier for versatile evaluation tests of parts, including general torque breaking tests, repetitive durability evaluation tests and so forth.

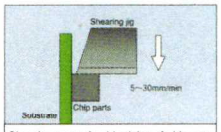
Standard Specifications

Model	5127VC/500	5127VC/2000	5127VC/5000
Max. output torque	500Kgf・cm	2000Kgf・cm	5000Kgf・cm
Torque display	±500.0Kgf・cm	±2000Kgf・cm	±5000Kgf・cm
Load table rotation speed	0.05 to 2RPM		
Rotation accuracy	±0.5%		
Rotational angle display & setting	±0 to 10000.0 degree		
Table size	200 mm dia.		250 mm dia.
Detector	Rotary encoder		
Motor	Servo motor		
Weight	Approx.350Kg	Approx.400Kg	Approx.700Kg
Size	W900 x H2300 x D600 mm		
Power supply	200VAC, three-phase		

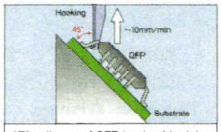
JIS-Rated Lead Free Solder Tester

MODEL-1605 VC/NF

Capacity: 50 N (5 kgf)
Force - Displacement



Shearing test of solder joint of chip part



45° pull test of QFP lead solder joint

The MODEL-1605 VC/NF is a precision tester designed for lead-free solder tests of boards with parts in conformance to JIS Z 3196-6 and JIS Z 3198-7. Jigs are replaced according to the test conditions. The pull point and shearing point are adjusted with the X-Y table. Measured data are stored in the Model-1016C amplifier and may be printed out or loaded into a PC after completion of measurement.

Standard Specifications

Max. force	50 N (5 kgf)
Test speed	0.5 to 600 mm/min.
Stroke	250 mm
Displacement display	Provided
Detector	Rotary encoder
Display resolution	0.01 mm
Display accuracy	0.1 mm
Displacement reading	10 µm (Standard) 1 µm (Option)
Table size	W475 x D150 mm, M10 x 1.5
Driving mechanism	Ball screw
Drive motor	Servo motor
Weigh	Approx. 50 kg
Size	W480 x H578 X D375 mm
Power supply	100 to 240 VAC, single-phase, 5A

Standard Configuration

- Tester: MODEL-1605VC
- Amplifier: MODEL-1016C
- Load cell: MODEL 3005 (5 kgf)
- Jig (Full set): M-500 FS

Applicable Tests

45° pull test of QFP lead solder joint
JIS Z 3198-6
Shearing test of solder joint of chip part
JIS Z 3198-7

MODEL-1308U/NF

Capacity: 50 N (5 kgf)

The MODEL-1308U/NF is a low-price and compact JIS-rated lead-free solder tester. It is designed for 45° pull tests of QFP lead solder and shearing tests of chip parts, which are enabled by replacing the jigs and RZ series digital force gages. Measured data are stored in the RZ series digital force gage and may be printed out or loaded into a PC after completion of measurement. The jigs are commonly used for the MODEL-1605 VC/NF.

Applicable Tests

45° pull test of QFP lead solder joint: JIS Z 3198-6
Shearing test of solder joint of chip part: JIS Z 3198-7

Standard Specifications

Max. force	50 N (5 kgf)
Test speed	5 to 100 mm/min., variable
Stroke	400 mm
Table size	W250 x D140 mm
Weight	Approx. 20 kg
Size	W255 x H810 X D300 mm
Power supply	100 to 240 VAC, 0.5 A

Standard Configuration

- Tester: MODEL-1308U
- Digital force gage: select proper RZ Series (up to 5 kgf)
- Jig (full set): M-500 FS


M-500P (Z3198-6)


M-500H


M-500HS-H


M-500HS


M-330

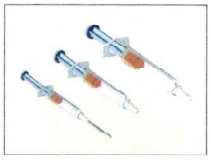

M-230-45

Comprehensive Syringe Needle Force Measuring Tester

MODEL-1310VC/SL

Capacity: 2kN (200Kgf)

The MODEL-1310 is designed for comprehensive force tests of various syringes shown below, for which various jigs are available. In particular, a one-touch needle chuck is supplied for sharpness tests of syringe needles. Measured waveform and maximum value are displayed on the screen. Select the test items from those shown below. Different jigs are used according to the test types. The MODEL-1310 has a vertically movable table.



Standard Specifications

Max. force	2kN (200Kgf)
Stroke	150mm
Column length	750mm
Column interval	250mm
Test speed	5 to 125mm/min.
Table size	200mm dia.
Weight	Approx. 41Kg
Size	W356xH1102xD314mm
Power supply	100 to 240VAC, single-phase 1A

Options

Select the following according to the test requirements.

A. Sharpness measurement
B. Sharpness measurement in the condition where needle bases are fixed to needles
C. Tensile strength measurement of needle-needle base adhesive
D. Slide strength measurement between barrels and pistons
E. Air tightness measurement between barrels and pistons
F. Dislocation (withdrawal strength) measurement of needles from barrels
G. Dislocation load measurement between needles and caps
H. Three-point bending measurement of needles only

Torque feeling tester

This tester is designed to test a correlation between torque value and the rotation angle. The acquired torque value and angle data are drawn on a torque-angle graph. It is also possible to automatically acquire the click torque value and angle during turning and show typical measurement values (click values).

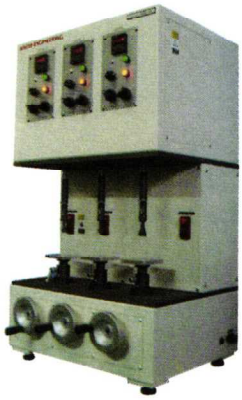
Power Cable Bending Durability Tester (5CH)

MODEL-CBL/5S

This is designed for durability tests of cables in conformity to the UL and JIS standards. It stops operation automatically at the set values (±90° & ±45°) and when the cable is broken. (Interlock type and manual type are available.)

Switch & Silicone Rubber Durability Tester (3-CH)

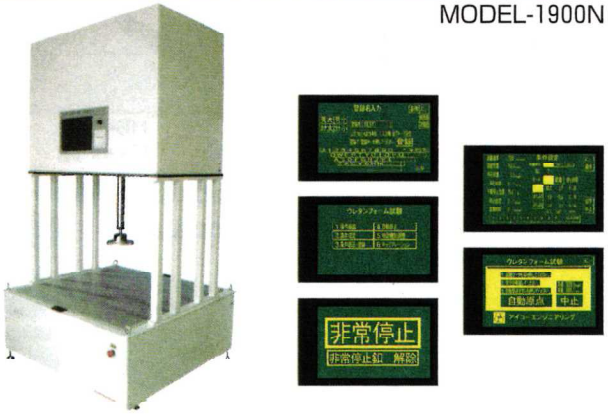
MODEL-SR-3



The MODEL-SR-3 is designed for durability tests of various electronic parts. It automatically stops a test at the preset cycle or when a test work is broken.

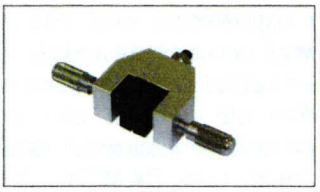
Urethane Foam Load Measurings Instrument (Screen Display Type)

MODEL-1900N

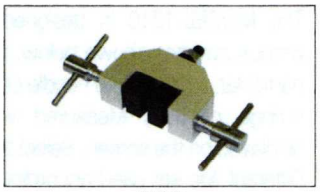


The MODEL-1900N allows all test patterns to be set on the touch panel. It stores a maximum of ten JIS, JAS and any optional patterns in the memory unit, which may be read out in tests. The test data are displayed on the screen and may be printed out.

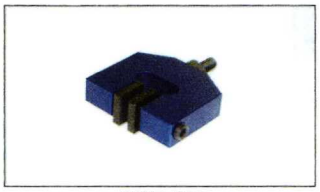
Grips & Jigs



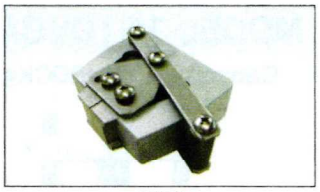
201
Small-size flat chuck



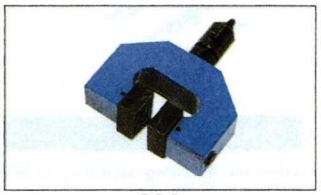
203
Flat chuck



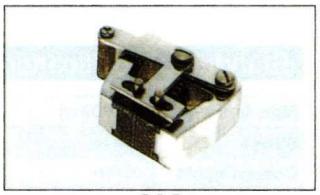
207-2K
Flat chuck



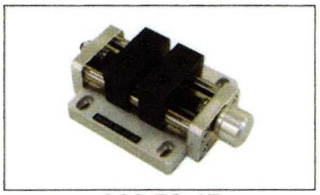
209
Rubber, plastic, cloth & metal
Wedge-type chuck



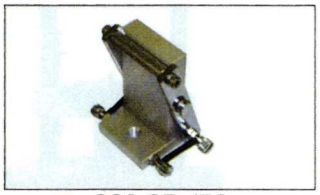
211
Cloth, metal & plastic
Large-size flat chuck



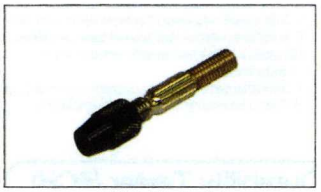
212
Wedge-type chuck



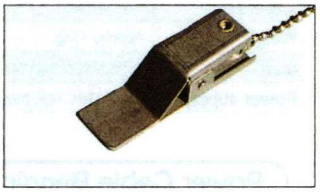
220-50-45
Small double side opening vise



221-25/50
Single roller chuck

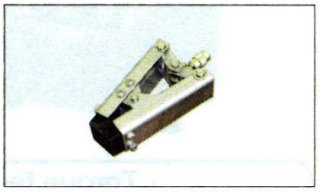


224-P-4/5
Pin vise

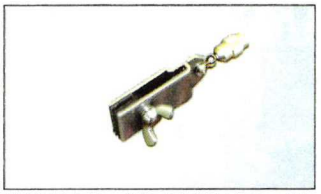


225
Small loads of wires, etc.

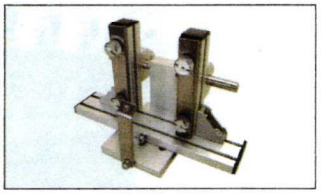
226-1/5/10/15
Pantograph chuck



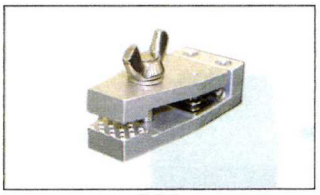
227-20/30
All-purpose type



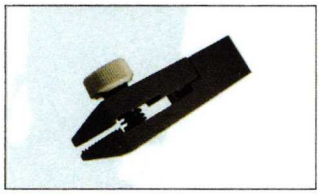
228G-10~40/228H-10~40
Film chuck
G: Rubber H: Sand paper



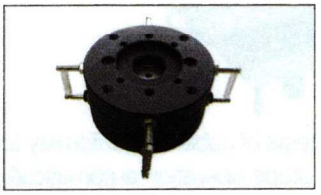
230-45
Board mounting jig



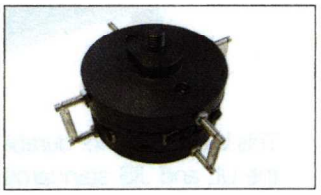
231
All-purpose type



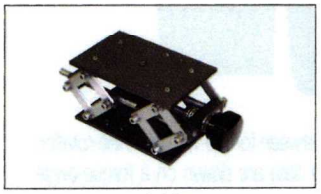
232
All-purpose type



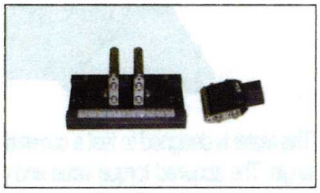
340-05/5(For torque)
Alignment table



340-L-5(For Tens. & Comp.)
Alignment table

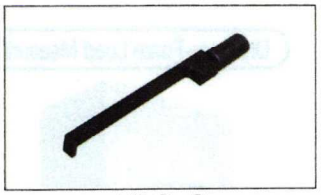


440
Z table

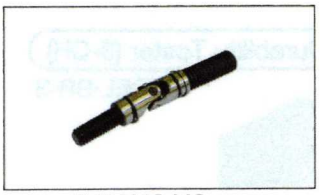


CB50-U3-D3
Bending jig

CP-U-40/60/80
Round flat type compression table

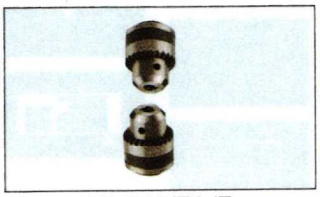


HS-2~8
Shear jig



OJ-U-M6-M6 etc
Joint

OJ-M10-F6,OJ-M10-M6 etc
Joint



TR-1/4/5A/5
Chuck for round rod

Double Slide Vise

▶ MODEL-220

Specifications

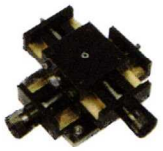
Max. open wicth	0 to 80 mm
Gripping force	1 kN
Blade size	W90 x D30 mm
Thread hole dia	M6
Weight	2.1 kg

※Blades are optional

This vise has blades that open toward both sides from the center. Fix it to the table of the instrument, and hold a test piece directly on the vise or fix the grip blades using the threaded holes in the upper pan.

X-Y Table

▶ Model-330



Specifications

Travel	1 mm/rotation
X-axis travel	±25 mm
Y-axis travel	±25 mm
Max. force	2 kN
Withstand tensile load	0.1 kN
Table size	55 x 60 mm
Weight	1 kg

Use this X-Y table together with AIKOH's test stands for centering or fine feeding of test pieces.

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	DC5V
Power supply	100V, 110V, 200V or 220V

MODEL-0215T

This is a digital display meter compliant with the TEDS Standard (IEEE 1451.4Class 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.

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

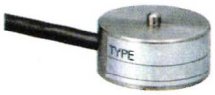
Features

- 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 accesorry.
- 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.

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 it 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 registance: 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



MODEL-CK

Small size load cell for compression test

Capacity: 100N to 20kN

●Standard Specifications
Rated output: 1mV/V (10 & 20kN: 1.5mV/V)
Non-linearity: 1%R.O. (10 & 20kN: 2%R.O.)
Hysteresis: 1%R.O. (10 & 20kN: 2%R.O.)
Repeatability: 1%R.O.
Recommend applied voltage: 5V
Allowable applied voltage: 7V
Temp. Compensation range:
-5 to +65 ℃(2 to 20kN: -5 to +50 ℃)
Allowable compensation range:
-10 to +70 ℃ (2 to 20kN: -10 to +60 ℃)
Allowable overload: 120%R.C.

MODEL-VCV

High performance load cell for compression test

Capacity: 500N to 100kN

●Standard Specifications
Rated output: 2mV/V±0.25%
(50 & 100kN: 2mV/V±0.5%)
Non-linearity: 0.15%R.O.
(50 & 100kN: 0.1%R.O.)
Hysteresis: 1%R.O.
Repeatability: 0.05%R.O.
Recommend applied voltage: 8V
Allowable applied voltage: 12V
Temp. Compensation range: -10 to +70 ℃
Allowable compensation range: -15 to +80 ℃
(50 to 100kN: -15 to +75 ℃)
Allowable overload: 150%R.C.

MODEL-US

Load cell for tension/compression

Capacity: 10kN to 500kN

●Standard Specifications
Rated output: 2mV/V±0.25%
(10kN: 1.5mV/V)
Non-linearity: 0.1%R.O.
Hysteresis: 0.1%R.O.
Repeatability: 0.05%R.O.
Recommend applied voltage: 10V
Allowable applied voltage: 15V
Temp. Compensation range: -10 to +70 ℃
Allowable compensation range: -20 to +80 ℃
Allowable overload: 150%R.C.

MODEL-QF

Non-Rotary Type Torque Meter

Capacity: 0.2 N · m to 1kN · m

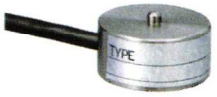
●Standard Specifications
Rated output: 1mV/V±1%
Non-linearity: 0.3%R.O.
Hysteresis: 0.3%R.O.
Repeatability: 0.2%R.O.
Recommend applied voltage:
10V (6V at 1N · m or less)
Allowable applied voltage:
15V (10V at 1N · m or less)
Temp. Compensation range: -10 to +70 ℃
Allowable compensation range: -20 to +80 ℃
Allowable overload: 150%R.C.

MODEL-CH

Load cell for compression test

Capacity: 5kN to 500kN

●Standard Specifications
Rated output: 1mV/V±1%
Non-linearity: 0.5%R.O.
Hysteresis: 0.5%R.O.
Repeatability: 0.1%R.O.
Recommend applied voltage: 10V
Allowable applied voltage: 15V
Temp. Compensation range: -10 to +70 ℃
Allowable compensation range: -20 to +80 ℃
Allowable overload: 150%R.C.

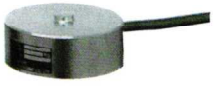


MODEL-CM

Very small size load cell for compression test

Capacity: 10N to 2kN

●Standard Specifications
Rated output: 1mV/V
Non-linearity: 1%R.O.
Hysteresis: 1%R.O.
Repeatability: 0.3%R.O.
Recommend applied voltage: 6V
Allowable applied voltage: 10V
Temp. Compensation range: -10 to +70 ℃
Allowable compensation range: -20 to +80 ℃
Allowable overload: 150%R.C.



MODEL-DCD

High performance load cell for compression test

Capacity: 500N to 200kN

●Standard Specifications
Rated output: 2mV/V±0.5%
Non-linearity: 0.15%R.O.
Hysteresis: 0.1%R.O.
Repeatability: 0.1%R.O.
Recommend applied voltage: 10V
Allowable applied voltage: 15V
Temp. Compensation range: -10 to +70 ℃
Allowable compensation range: -20 to +80 ℃
Allowable overload: 150%R.C.

MODEL-DUD

Small high performance load cell for tension/compression test

Capacity: 500N to 20kN

●Standard Specifications
Rated output: 2mV/V±1%
Non-linearity: 0.15%R.O.
Hysteresis: 0.1%R.O.
Repeatability: 0.1%R.O.
Recommend applied voltage: 10V
Allowable applied voltage: 15V
Temp. Compensation range: -10 to +70 ℃
Allowable compensation range: -20 to +80 ℃
Allowable overload: 150%R.C.

MODEL-QR

Rotary type torque meter

Capacity: 10N · m to 2kN · m

●Standard Specifications
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.
Recommend applied voltage: 10V
Allowable applied voltage: 15V
Temp. Compensation range: -10 to +70 ℃
Allowable compensation range: -20 to +75 ℃
Allowable overload: 150%R.C.

MODEL-CB

Load beam

Capacity: 50N to 10kN

●Standard Specifications
Rated output: 2mV/V±1%
Non-linearity: 0.05%R.O.
Hysteresis: 0.05%R.O.
Repeatability: 0.05%R.O.
Recommend applied voltage: 10V
Allowable applied voltage: 15V
Temp. Compensation range: -10 to +70 ℃
Allowable compensation range: -20 to +80 ℃
Allowable overload: 150%R.C.

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℃
Allowable compensation range	-20 to +80℃
Temp.influence upon zero point	±0.005% R.O. / ℃
Temp.influence upon output	±0.005% / ℃
Allowable overload.	150% R.C.

Tensile & Compression Type Load Cells

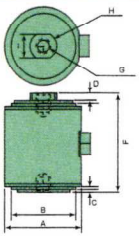
While these load cells with female threads on both sides are designed for both tensile and compression tests, they feature high precision, high output, and less output errors in pushing and pulling, resulting in high reliability. They are widely used for performance tests and industrial measurement of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

Dimensions

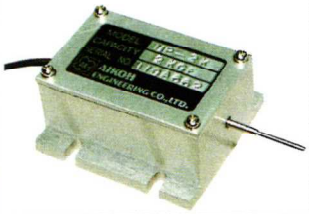
Model	Rated capacity	ΦA	ΦB	C	D	F	G	H	I
3005	50 N	60	50	2	5	80	M10 P1.5	20	17
3020	200 N	60	50	2	5	80	M10 P1.5	20	17
3050	500 N	60	50	2	5	80	M10 P1.5	20	17
3200	2KN	60	50	2	5	80	M10 P1.5	20	17
3500	5KN	68	58	2	10	90	M20 P1.5	36	30
3800	10KN	60	50	3	15	120	M20 P1.5	36	30
3900	20KN	60	50	3	15	120	M20 P1.5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

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

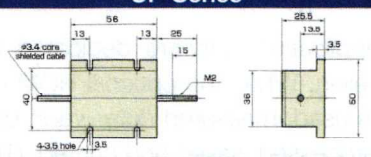
3000 Series



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 ℃	Allowable compensation range	-20~+80 ℃