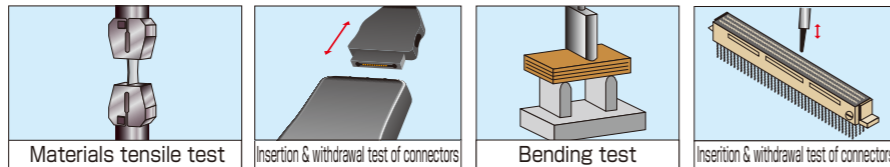


Desk-top type Force Tester

FTN 1-13A

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



※Jigs are not included. (Optional)

This is an integrated force tester with a built-in amplifier for the compression and tensile force tests up to 2kN (200Kg). 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 operation 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 (50Kg)	2kN (200Kg)
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 2000display 1000display
	Displacement	4-digit display 4-digit or 5-digit display 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	

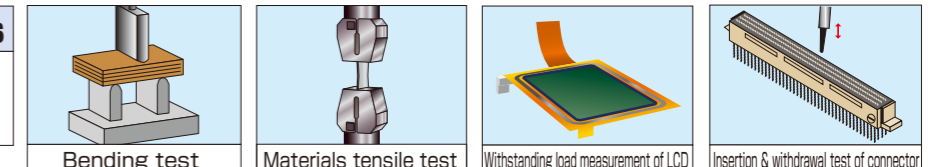
Softwares

MODEL	FTN-3000	FTN-3001
	(Packed version)	(Full spec version)
Computer	DOS/V compliant IBM/PC compatible	
Operation system (OS)	Windows 7 or 8	

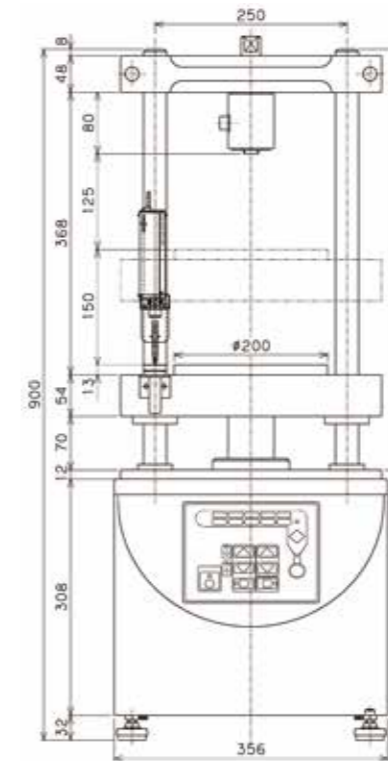
Precision force testers

MODEL-1310VC Series

Capacity: 2kN (200Kg)
Force-Displacement



※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 (200Kg). 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 (200Kg)			
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	100 to 240VAC, single-phase, 5A	100 to 240VAC, single-phase, 1A	100 to 240VAC, single-phase, 5A