

Motorized test stand MX2 series MX2-500N/1000N/2500N/5000N

- Achieves high repeatability with constant testing speed and position
- Easy digital setting of testing modes and speed
- Offers useful functions operated together with force gauge



MX2-500N



MX2-2500N

Features

Improved Repeatability

- Constant testing speed and position for applying compression and tensile force
- Rugged design minimizes influence of deformation (max.0.5mm)

Easy Operation

- Ergonomically inclined control panel
- Dial operation for digital setting
- Three testing modes to meet testing requirements

Versatility for a wide variety of testing

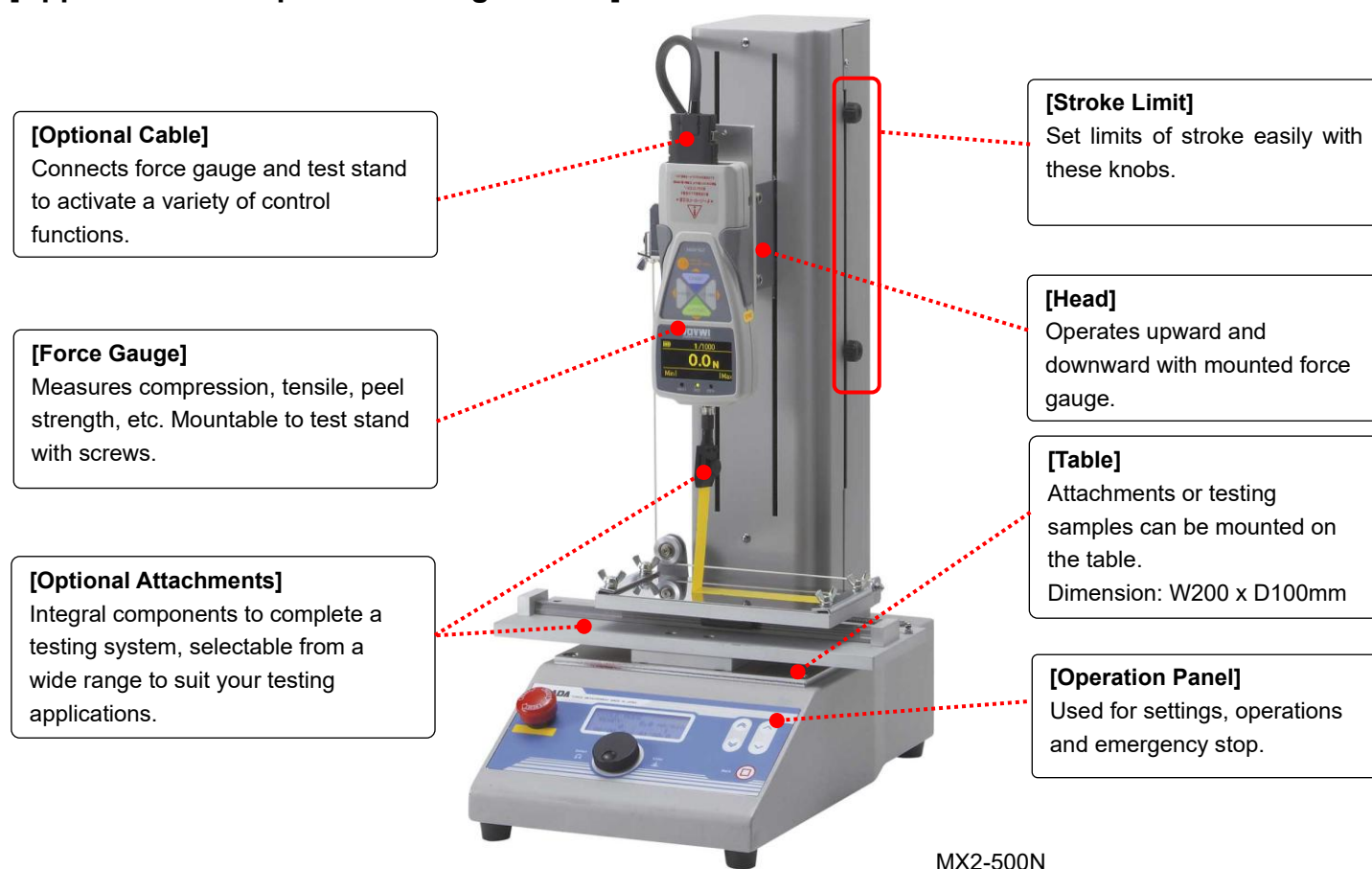
- Repeated durability test by setting the number of test cycles
- Useful timer function for compression testing allows pausing at a set force value. (*)
- The table is designed to cater to various attachments.
- Optional functions for various purposes

Functions for efficient testing

- Easy setting of travel distance depending on the sample height.
- Automatically changes traveling and measuring speed at a set force value. (*)
- Starts software together with test stand motion.(*)

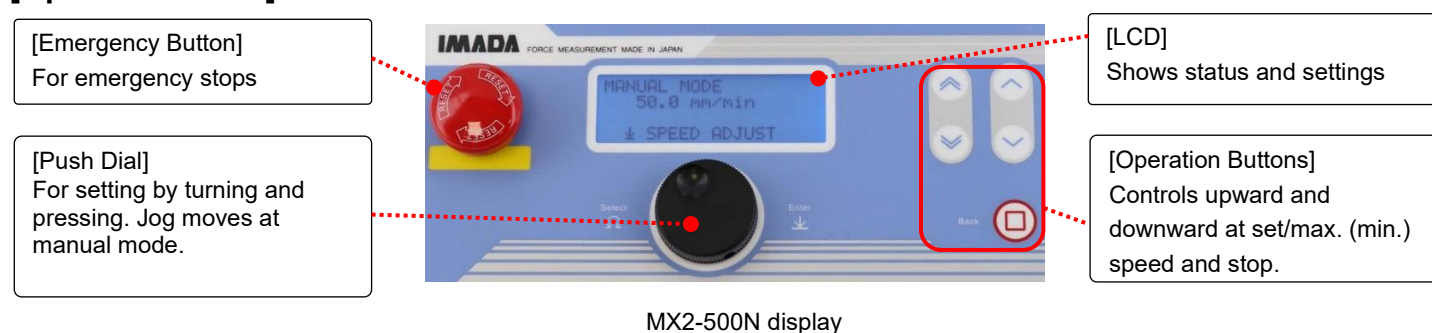
* Requires certain models of force gauge and optional cable.

[Application Example and Configurations]



*Force gauge, optional attachments and optional cable are sold separately.

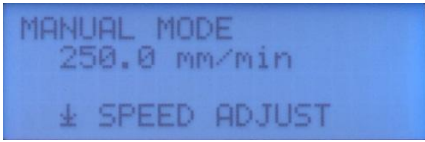
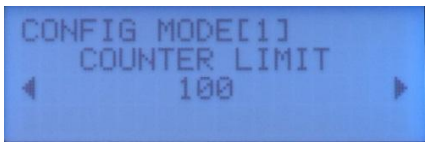
[Operation Panel]



[Applications] Use suitable attachments to perform a variety of measurements.

Wire crimp pull test	Peel test of tapes	3-point bend material testing
Tests the strength of crimped terminal by measuring the tensile force required to remove a crimped terminal.	Tests adhesive strength by peeling off the adhesive tape affixed on the table.	Applies compression force to test strength of materials such as metal by bending or breaking.
		

[Basic Operations]

Adjusting speed		Testing speed is easily adjustable with dial. Setting resolution: [10-20mm/min: 0.5mm/min] [20-100mm/min: 5mm/min] [100-300mm/min: 10mm/min] Adjustable speed types: Start, Measuring, Return
Three measuring modes		Three testing modes are available to meet requirements. • Manual mode: Moves while up/down buttons are pressed. • JOG mode: Minute feeding by turning dial (approx. 0.05mm per 1 turn) • Cycle mode: Travels between stroke limit knobs for cycles.
Other functions		Cycle mode allows to set the number of tests to repeat and pausing time. Counter (number of tests to repeat): Max. 65535 times Timer (pausing time): Up to 99 min 59 sec 9 (by 0.1 sec)

[Main Options] *

Long stroke (-L/-2L)	Speed change (-V)	Length meter (-S)
This option provides extended stroke. Useful when testing stretching samples or testing for long distance.	This option changes the speed range. Useful for tests that require faster/slower speed condition.	Built in digital screen indicates travel distance of force gauge.
		
FA option (-FA)	External signal input (-CN)	
This option allows a linear scale unit to be installed on the test stand column for measuring head displacement. *A compatible force gauge with displacement I/O, such as the ZTA series, and an optional cable are required.	This option mounts the connector for external signal input. It allows inputs such as start, stop, and interlock.	
		

*Available options depend on model ranges. Please refer to [Specifications] on the next page.

[Specifications]

Model	MX2-500N	MX2-1000N	MX2-2500N	MX2-5000N
Image				
Capacity	500N	1000N	2500N	5000N
Speed	Digital 10 to 300mm/min [10 - 20mm/min: by 0.5mm/min] [20 - 100mm/min: by 5mm/min] [100 - 300mm/min: by 10mm/min]			Digital 0.5 to 300mm/min (*1) [0.5 - 20mm/min: by 0.5mm/min] [20 - 100mm/min: by 5mm/min] [100 - 300mm/min: by 10mm/min]
Max. Sample Height	Approx. 235mm (*2)	Approx. 300mm (*2)	Approx. 320mm (*2)	Approx. 380mm (*2)
Rigidity	[Standard models] less than 0.5mm, [Long stroke (optional)] less than 1.0mm			[extended column (optional)] less than 1.0mm
Stroke Limit	Controllable with upper and lower knob			
Measuring Modes	Manual / Jog / Cycle mode			
Functions	Counter (number of tests to repeat): Max. 65535 times Timer (pausing time): Up to 99 min 59 sec 9 (by 0.1 sec)			
Control	Emergency stop, force control (*3), overload stop (*3, *4)			
Operating environment	0 to +40 degree Celsius RH 85% or less (without condensation)			
Voltage	AC100 to 240V, 50/60Hz (Select from 100, 120 and 230V. Accessories are provided accordingly.)			
Power Consumption	50W			150W
Dimensions	See [Dimensions]			
Weight	Approx. 18kg	Approx. 19kg	Approx. 26kg	Approx. 51kg
Accessories	Operation manual, power cable, spare fuse, tools			Operation manual, power cable, spare fuse, tools, carrying handle, yellow cap
	GF-1 (Grip mounting adaptor)	GF-2 (Grip mounting adaptor), mounting plate for high capacity force gauge	GF-2 (Grip mounting adaptor), mounting plate for standard force gauge	
Available Options *5*6*7	-L: Extended stroke by 200mm -2L: Extended stroke by 400mm -CN: External signal input -S: Length scale -FA: Inbuilt linear scale -V45: Speed 1.5 to 45mm/min -V90: Speed 3 to 90mm/min -V450: Speed 15 to 450mm/min -V600: Speed 20 to 600mm/min -V900: Speed 30 to 900mm/min	-L: Extended stroke by 300mm -CN: External signal input -S: Length scale -FA: Inbuilt linear scale -V75: Speed 2.5 to 75mm/min -V150: Speed 5 to 150mm/min -V750: Speed 25 to 750mm/min -V1000: Speed 35 to 1000mm/min	-L: Extended stroke by 300mm -CN: External signal input -S: Length scale -FA: Inbuilt linear scale -V75: Speed 2.5 to 75mm/min -V150: Speed 5 to 150mm/min	-EXT: Extended column by 200mm (*8) -CN: External signal input -S: Length scale -FA: Inbuilt linear scale
Mountable Force Gauge	See [Mountable Force Gauges] on page 5			

- *1 When applying force to highly elastic samples such as springs, the speed may decrease by a few percent.
- *2 This value is the distance between the test stand table and the tip of force gauge measuring shaft when the head is in the uppermost position.
(MX2-500N/1000N: When up to 1000N model of ZTS/ZTA series, MX2-2500N/5000N: When over 2500N model of ZTS/ZTA series is mounted.)
- *3 Connection to a compatible force gauge (ZTS/ZTA/eZT/FA Plus2/eFA Plus2 series) with a dedicated cable is required.
- *4 It does not guarantee complete prevention of failures due to overloads.
- *5 Add the option code after the model name to complete the model with options.
e.g. When adding long stroke option to MX2-500N ... Model: MX2-500N-L
- *6 Capacity is reduced as below by some speed change options.
MX2-500N: -V600 capacity 250N, -V900 capacity 150N MX2-1000N: -V750 capacity 500N, -V1000 capacity 250N
- *7 -FA: For displaying and outputting the Linear Scale Unit values, a compatible force gauge and a dedicated cable connection required.
- *8 The stroke does not extend. It extends the column of test stand and max. sample height is approx. 580mm.

[Mountable Force Gauges]

	MX2-500N	MX2-1000N	MX2-2500N	MX2-5000N
DST/DSV-2N to 1000N	✓	✓	✓	✓
ZTS/ZTA-2N to 1000N	✓	✓	✓	✓
ZTS/ZTA-2500N to 5000N	N/A	✓	✓	✓
DPU-2N to 500N	✓	✓	✓	✓
DPUH-1000N to 5000N	N/A	✓ *1	✓ *1	✓ *1
FB/FS/PS/PSS/PSM series	✓	✓	✓	✓
PSH series	N/A	✓	✓	✓

- * Load cells not listed cannot be mounted on any of our test stands.
- * Ensure to use within the capacity of force gauge and test stand regardless of the mountable models.
- *1 Mounting block (sold separately) is required to mount DPUH series (1000N to 5000N) to MX2-1000N/MX2-2500N/MX2-5000N.

[User Mounted Unit (only for MX2-5000N)]

Length Scale : OP-MX250-S	FA version : OP-MX250-FA *1
It digitally indicates travel distance of a force gauge.	It builds a linear scale into a test stand to output travel distance of a force gauge and allows to utilize it for analysis of force-displacement relations.

- * Requires mounting the unit to MX2-5000N by yourself.
- * Mountable to MX2-5000N-EXT (extended column option).
- *1 Select -FA option if the test stand with built in linear scale is required. For displaying and outputting the Linear Scale Unit values, a compatible force gauge and a dedicated cable connection required.

[Force gauge Interlinking function] Applicable with the dedicated force gauge and cable connections.

- Overload stop: Automatically stops the operation when an overload signal is received from the force gauge. (This function does not guarantee complete prevention of failures due to overloads.) - Force control: Controls test stand operation with the force gauge according to the force value. - Measuring speed setting: Enables automatic speed change at a point of contact using the set force value. - Automatic measurement: Software recording and zeroing force gauge can be automatically done.
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- * Compatible force gauge: ZTS/ZTA/eZT/FA Plus2/eFA Plus2 series.

[Dedicated Cables]

CB-528	For connecting the Force Gauge to the Test Stand to enable Force gauge Interlinking functions
CB-718	For -FA option: Connects the dedicated Force Gauge to the Test Stand and the Linear Scale for force-displacement measurement. (Force gauge Interlinking functions are also enabled.)
CB-706	For -CN option: Open-Ended Cable to connect with external device

[Related Products]

Digital Force Gauge ZTS/ZTA series	Interlocking shield option for motorized test stand OP-MX2 series	Force-Displacement Measurement Unit FSA series
Digital force gauge capable of measuring at a sampling rate of 2000 Hz. Connection with MX2 series by the dedicated cable enables interlinking functions.	This shield prevents debris of test sample from scattering, and stops operation when the door is open for more safety. *1	Measurement unit for force-displacement measurement. By creating a force-displacement graph, it can be used for tactile tests, material evaluation, and more.
		
Standard Type Vertical Motorized Test Stand MX3-500N	Advanced Type Vertical Motorized Test Stand EMX series	Advanced Type Vertical Motorized Test Stand EMX2-500N
Updated Standard Type Test Stand from the MX2-500N. Downloadable software for configuring test conditions in Auto Test Mode is included, resulting in improved usability.	In addition to the features of the MX2 series, EMX series is equipped with a variety of functions, including digital setting of test distances. Test speeds can be set from 0.5 to 600 mm/min.	Updated Advanced Type Test Stand from the EMX-500N. Downloadable software for configuring test conditions in Auto Test Mode is included, resulting in improved usability.
		

*1 -CN option and safety setting of MX2 series are required to activate interlock function.

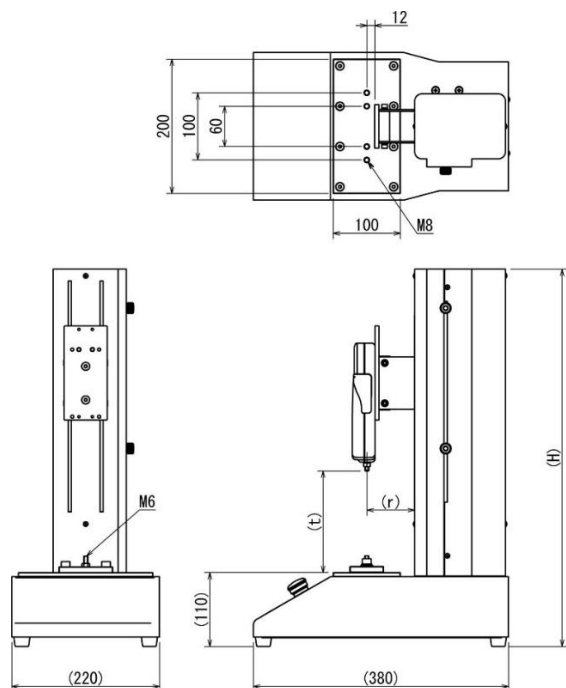
[Examples of Customized Solutions]

Controller-separated Model	Testing Large Samples	External signal input
		
To incorporate a force measuring system into your equipment or to operate the stand remotely to avoid accidents.	For testing a sample larger than the standard test stand table or testing multiple points on a large sample to push in/pull.	Allows to mount a switch to start and stop operation such as a foot pedal, which improves efficiency or allows operating it together with your equipment. (-CN option of MX2 series is required)

[About MX2 series Dimensions]

Grip mounting adaptor, GF-1/GF-2, is depicted on the front view and the side view but not on the top view of MX2 series Dimensions. "M6" or "M10 (for 1000N or higher models)" on the front view and the side view are for attachment installation and "M8" on the top view indicates the position of holes for the screw to fix the grip mounting adaptor to the stand.

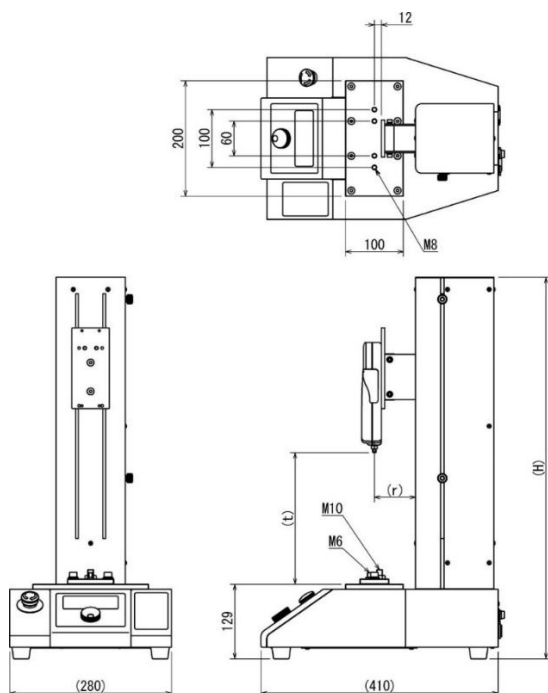
[MX2-500N Dimensions]



		MX2-500N	MX2-500N-L	MX2-500N-2L
H		562	762	962
r	With DST/DSV/ZTS/ZTA (2N to 500N) mounted	71		
	With DPU (lower than 500N) mounted	69		
t	With DST/DSV mounted	245	445	645
	With ZTS/ZTA (2N to 500N) mounted	235	435	635
	With DPU (2N to 10N) mounted	260	460	660
	With DPU (20N to 500N) mounted	250	450	650

Unit: mm

[MX2-1000N Dimensions]

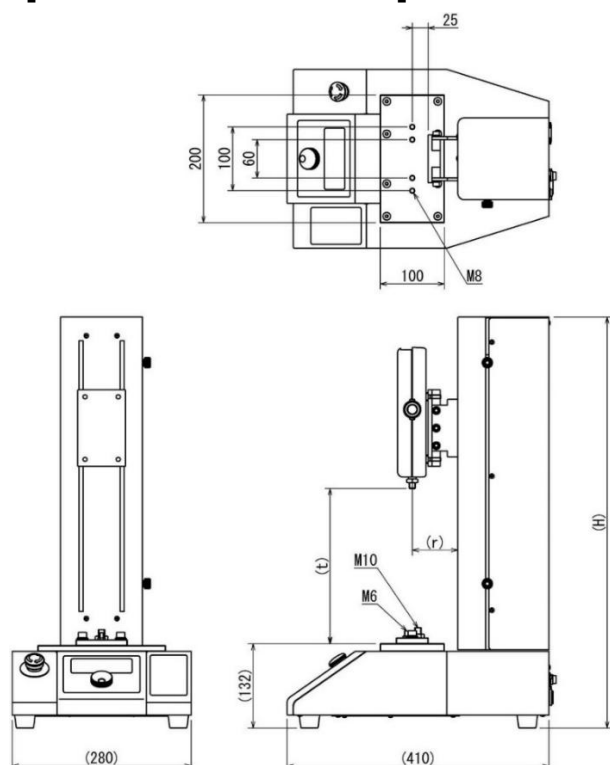


		MX2-1000N	MX2-1000N-L
H		660	960
r	With DST/DSV/ZTS/ZTA (2N to 1000N) mounted	71	
	With ZTS/ZTA (2500N to 5000N) mounted	74	
	With DPU (lower than 500N) mounted	69	
	With DPUH (1000N to 5000N) mounted	73	
t	With DST/DSV mounted	310	610
	With ZTS/ZTA (2N to 1000N) mounted	300	600
	With ZTS/ZTA (2500N to 5000N) mounted	340	640
	With DPU (2N to 10N) mounted	325	625
	With DPU (20N to 500N) mounted	315	615
	With DPUH (1000N to 5000N) mounted	345	645

Unit: mm

* Mounting block (sold separately) is required when mounting DPUH-1000N to 5000N.

[MX2-2500N Dimensions]

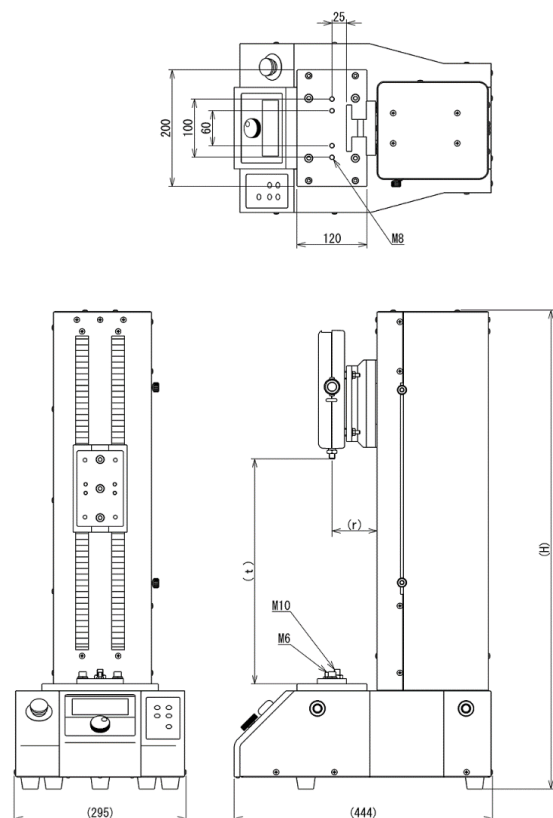


* Mounting block (sold separately) is required when mounting DPUH-1000N to 5000N.

		MX2-2500N	MX2-2500N-L
H		644	944
r	With DST/DSV/ZTS/ZTA (2N to 1000N) mounted	72	
	With ZTS/ZTA (2500N to 5000N) mounted	71	
	With DPU (lower than 500N) mounted	70	
	With DPUH (1000N to 5000N) mounted	74	
t	With DST/DSV mounted	320	620
	With ZTS/ZTA (2N to 1000N) mounted	315	615
	With ZTS/ZTA (2500N to 5000N) mounted	320	620
	With DPU (2N to 10N) mounted	290	590
	With DPU (20N to 500N) mounted	285	585
	With DPUH (1000N to 5000N) mounted	210	510

Unit: mm

[MX2-5000N Dimensions]



* Mounting block (sold separately) is required when mounting DPUH-1000N to 5000N.

* The stroke of MX2-5000N (-EXT) has lower limit. It depends on each of force gauges and load cells.

		MX2-5000N	MX2-5000N-EXT
H		823	1023
r	With ZTS/ZTA(2N to 1000N) mounted	78	
	With ZTS/ZTA (2500N to 5000N) mounted	77	
	With DPU (2N~500N) mounted	76	
	With DPUH (1000N to 5000N) mounted	69	
t *1	With ZTS/ZTA (2N to 1000N) mounted	88-370	288-570
	With ZTS/ZTA (2500N to 5000N) mounted	95-380	295-580
	With DPU (2N to 50N) mounted	65-350	265-550
	With DPU (100N to 500N) mounted	58-350	258-550
	With DPUH (1000N to 5000N) mounted	45-335	245-535

Unit: mm

[Cautions]

- Information in this document is subject to change without prior notice.
- This document is product descriptions and handling precautions, and do not guarantee various characteristics or safety.
- This product is designed for force measurement purpose only.
- Do not copy and use this content without authorization.
- A force gauge (sold separately) is required to use this product.
- Do not use this product in the environments including fierce temperature changes, high temperature, high humidity, near water, dusty place.

FOR MORE INFORMATION PLEASE CONTACT:



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