



MESUR Lite data acquisition software is included with the WT-205M

Measure wire crimp pull forces up to 200 lbf [1 kN] accurately and efficiently with the WT-205M motorized pull tester. Portable and customizable, the tester conforms to numerous UL, ISO, ASTM, SAE, MIL, and other requirements for destructive and non-destructive testing. Pull to break, pull to load, or maintain a load for a specified period of time (optional functions), as per the requirements of UL 486A/B. Programmable pass/fail limits with red and green indicators and audio alerts help identify non-conforming samples.

The tester's standard adjustable terminal fixture contains multiple slots for diameters up to AWG 3 (0.25 in [6.3 mm]), while the self-tightening wedge grip securely clamps the free end of the cable. To accommodate a wide range of materials, optional and interchangeable alternative grips are available. Samples can be sent to Mark-10 for evaluation and recommendation prior to purchase.

The WT-205M stores and calculates statistics for up to 2,000 readings, with available date and time stamps for each saved data point. Data can be transferred to a PC or other data collector via USB, RS-232, Mitutoyo (Digimatic), or analog outputs.

Upon sample break, the tester can auto-reverse, save and output the peak force, and auto-zero in preparation for the next test, increasing testing efficiency. The available Profiles function allows the user to create and save test setups for quick recall.

Use free MESUR® Lite data acquisition software to tabulate continuous or single point data. Data stored in the tester's memory can also be downloaded in bulk. One-click export to Excel allows for further data manipulation.

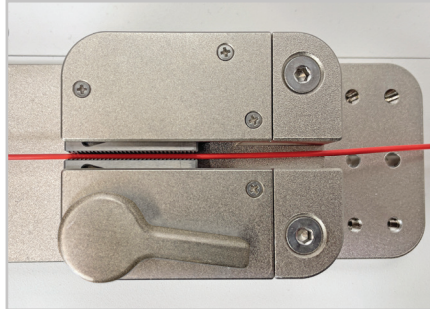
## Features

- Measures live and peak force values up to 200 lbf [1 kN]
- Selectable test speed, w/high speed approach and reverse
- Accommodates cables up to Ø0.25 in [6.3 mm]
- Selection of grips accommodate a wide range of materials
- Auto-reverse at sample break or load
- USB, RS-232, Mitutoyo (Digimatic), and analog outputs
- Automatic reverse / output / data storage / zeroing upon sample break helps automate testing processes
- 2,000-point data memory with statistics, output, and date and time stamp (optional function)
- Password protection prevents unauthorized changes
- Pass / fail indicators, audio alerts, and outputs
- Save and recall up to 500 profiles for various test requirements (optional function)
- Pull to a specified load or maintain load for a specified period of time, as per UL 486A/B (optional functions)
- Date / time stamp for all saved data (optional function)

## Key Features



- ▲ The standard adjustable wire terminal fixture accommodates wire diameter sizes up to AWG 3 (0.25 in [6.3 mm]).



- ▲ The standard self-tightening wedge grip secures and pulls the loose end of the cable.



- ▲ Save and recall multiple profiles, for quick and accurate switchover to different test methods.

## Controls & Indicators



## Optional Functions

Any of these optional functions may be purchased at time of order or may be enabled in the field at a later date through a simple activation process. A complete options package is also available, including all of the listed features at a discounted price. The tester is shipped in Demo Mode, during which time all available functions are enabled for 160 hours of operation.

| Feature                  | Part No.    | Description                                                                                           |
|--------------------------|-------------|-------------------------------------------------------------------------------------------------------|
| Profiles                 | WF010       | Save and recall up to 500 sets of test parameters, including pass/fail limits, measurement unit, etc. |
| Pull to load             | WF011       | The tester will stop when the specified load has been reached.                                        |
| Load holding             | WF012       | The tester will stop and maintain a specified load for a specified period of time.                    |
| Date and time stamp      | WF013       | A date and time stamp is applied to each saved data point.                                            |
| Complete options package | WFCOMP-205M | Includes all functions listed above.                                                                  |

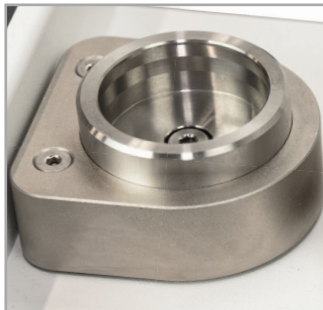
## Optional Accessories



### AC1135

#### Ring terminal fixture

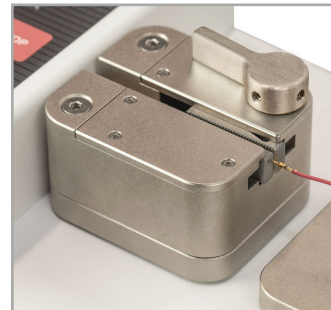
Secures ring terminations. Pin diameter sizes from 1/8 to 3/8 in [3.2 to 9.5 mm]. Replaces the standard turret fixture.



### AC1136

#### Machinable blank terminal fixture

For unique sample shapes and sizes. Replaces the standard turret fixture.



### AC1132

#### Wedge grip assembly

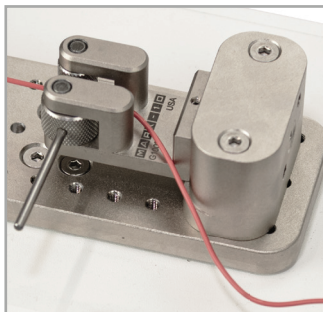
Self-tightening jaws effectively secure the sample. This type of grip is standard on the actuator end, but may also replace the standard turret fixture.



### AC1134

#### Bollard grip assembly

Secures the free end of the sample via a bollard and vise. Based on the model G1102 grip.



### AC1133

#### Dual roller grip assembly

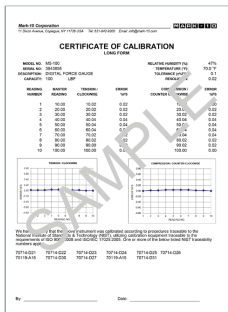
Cam-action knurled rollers secure the free end of the wire. Replaces the standard wedge grip. Based on the model G1002 grip.



### AC1137-2

#### Carrying case

Provides a cushioned storage space for the tester and accessories.



### CERT

#### Calibration certificate w/data

Includes 10 data points (short form certificate without data is included).



### AC1049

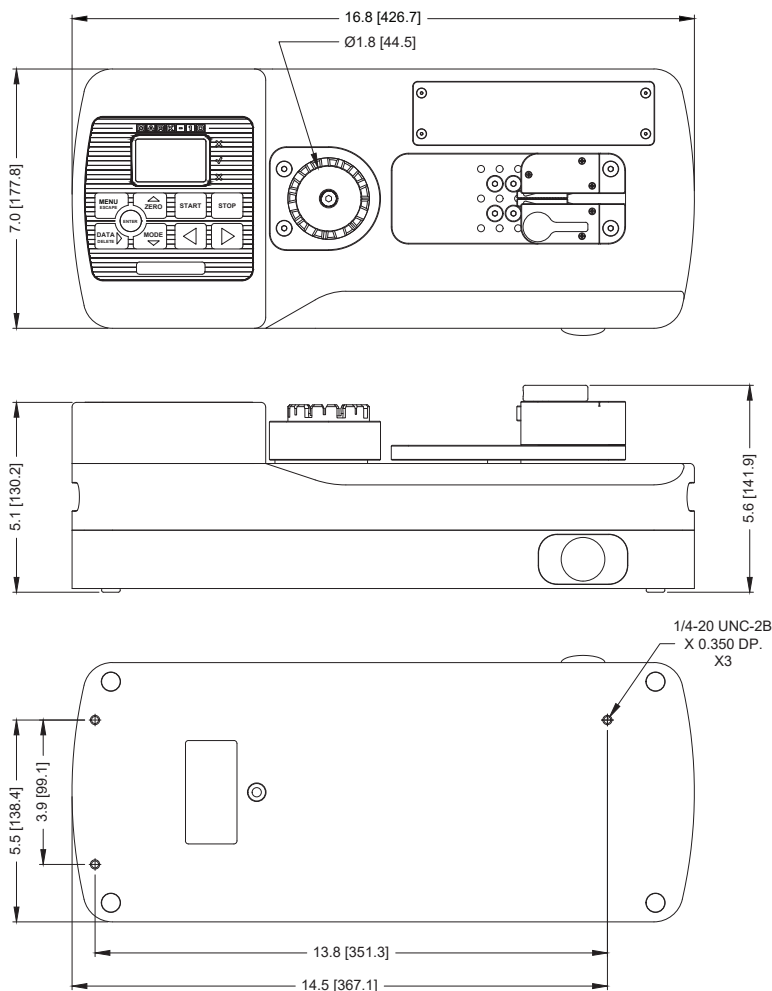
#### Calibration fixture

Complete set of brackets and hardware for calibration of WT-205 or WT-205M. Also compatible with legacy models WT3-201, WT3-201M, and WT3-200. Weights not available from Mark-10.

## Specifications

|                             |                                                                                                                                                                                                                                                                                                                                              |
|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Force capacity:             | 200 x 0.1 lbf   3200 x 2 ozF   100 x 0.05 kgF   1,000 x 0.5 N   1 x 0.0005 kN                                                                                                                                                                                                                                                                |
| Accuracy:                   | ±0.2% of full scale                                                                                                                                                                                                                                                                                                                          |
| Wire diameter range:        | AWG30 - AWG 3 [0.01 - 0.25 in (0.3 - 6.3 mm)]                                                                                                                                                                                                                                                                                                |
| Minimum sample length:      | 2.1 in (53.3 mm), excluding termination                                                                                                                                                                                                                                                                                                      |
| Maximum elongation:         | 2.3 in (58.4 mm)                                                                                                                                                                                                                                                                                                                             |
| Speed range:                | <b>Approach speed (until the sample preload):</b> 12.0 - 25.0 in/min [300 - 625 mm/min]<br><b>Test speed (between the preload and end of travel):</b> 0.4 - 12.0 in/min [10 - 300 mm/min]<br><b>Return speed:</b> 12.0 - 45.0 in/min [300 - 1,125 mm/min]                                                                                    |
| Speed accuracy:             | ±0.2%, virtually no variation with load                                                                                                                                                                                                                                                                                                      |
| Force sampling rate:        | 7000 Hz                                                                                                                                                                                                                                                                                                                                      |
| Outputs:                    | <b>USB / RS-232:</b> Configurable up to 115,200 baud.<br><b>Mitutoyo:</b> Serial BCD suitable for all Mitutoyo SPC-compatible devices.<br><b>Analog:</b> ±1 VDC at capacity, ±0.25% of full scale.<br><b>General purpose:</b> Three open drain outputs, one input.<br><b>Set points:</b> Three open drain lines, 40 VDC max., 100 mA DC max. |
| Overload protection:        | Motor stops at 120% of force capacity (display shows "OVER" at 110% and above)                                                                                                                                                                                                                                                               |
| Weight:                     | 28 lb [12.7kg]                                                                                                                                                                                                                                                                                                                               |
| Environmental requirements: | 40 - 100°F, max. 96% humidity, non-condensating                                                                                                                                                                                                                                                                                              |
| Warranty:                   | 3 years (see individual statement for further details)                                                                                                                                                                                                                                                                                       |

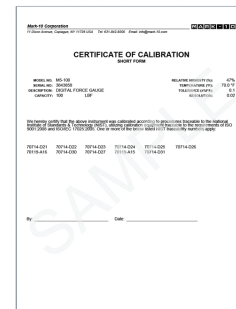
## Dimensions in [mm]



## In The Box

The tester is shipped as shown at right and includes the following accessories:

- (1) Turret-style terminal fixture (installed)
- (1) Wedge grip assembly (installed)
- (1) USB cable
- (1) 110V US power cord
- (1) Certificate of calibration without data (data is optional)



## Ordering Information

| Model                               | Description                          |
|-------------------------------------|--------------------------------------|
| WT-205M                             | Motorized wire crimp pull tester     |
| <b>Optional Functions</b>           |                                      |
| WF010                               | Profiles                             |
| WF011                               | Pull to load limit                   |
| WF012                               | Load holding                         |
| WF013                               | Date and time stamp                  |
| WFCOMP-205M                         | Complete options package for WT-205M |
| <b>Additional Items to Consider</b> |                                      |
| AC1135                              | Ring terminal fixture                |
| AC1136                              | Machinable blank terminal fixture    |
| AC1132                              | Wedge grip assembly                  |
| AC1134                              | Bollard grip assembly                |
| AC1133                              | Dual roller grip assembly            |
| AC1137-2                            | Carrying case                        |
| AC1049                              | Calibration kit                      |
| CERT                                | Certificate of calibration with data |

## Alternative Power Cables

The WT-205M contains a universal power supply (80 - 240V) and power cable with US prong style. Select alternative power cords from the table below.

| Model  | Description      |
|--------|------------------|
| AC1139 | Power cable, EUR |
| AC1140 | Power cable, UK  |
| AC1141 | Power cable, AUS |