

## Data Sheet

# Wire Crimp Pull Tester **Model WT-205**

32-1277 REV 0425

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MESUR<sup>®</sup> Lite data acquisition software is included with the WT-205

Measure wire crimp pull forces accurately and efficiently with the portable and customizable WT-205 tester. Easily apply up to 200 lbf (1,000 N) of force via an ergonomic lever. 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.

A backlit graphic LCD displays real-time force, peak force, unit of measurement, and pass/fail indicators. Green and red pass/fail indicators may also be used. A load bar on the display shows when an overload is approaching.

Transfer data to a PC or other data collector via USB, RS-232, Mitutoyo (Digimatic), or analog outputs. The WT-205 stores up to 1,000 readings and calculates statistics. Upon sample break, the tester can automatically save and output the peak force and auto-zero in preparation for the next test, increasing testing efficiency.

Use free MESUR<sup>®</sup> 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.

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.

## Features

- Measures real-time and peak pull forces
- Ergonomic lever operation produces 200 lbf (1,000 N)
- Accommodates cables up to Ø0.25 in [6.3 mm]
- Selection of grips accommodate a wide range of materials
- USB, RS-232, Mitutoyo (Digimatic), and analog outputs
- Automatic output / data storage / zeroing upon sample break increases testing efficiency
- 1,000-point data memory with statistics
- Password protection prevents unauthorized changes
- Pass / fail indicators
- High-speed 7,000 Hz sampling rate accurately captures peak force values
- Configurable audio alarms and key tones
- Mounting holes for bench mounting



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



▲ An ergonomic lever easily applies force and releases the sample.



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

## Controls & Indicators



## Optional Functions

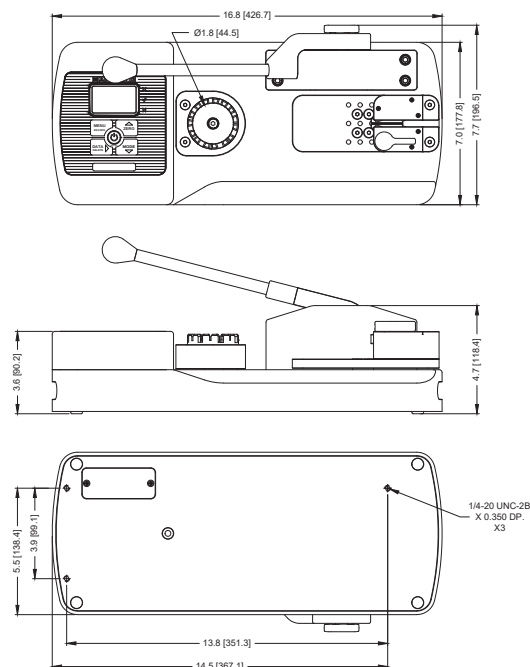
Any of these optional functions may be purchased at time of order or may be enabled in the field at a later date through a simple activation process. A complete options package is also available, including all of the listed features at a discounted price. The tester is shipped in Demo Mode, during which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

| Feature                         | Part No.   | Description                                                                                           |
|---------------------------------|------------|-------------------------------------------------------------------------------------------------------|
| <b>Profiles</b>                 | WF010      | Save and recall up to 500 sets of test parameters, including pass/fail limits, measurement unit, etc. |
| <b>Date and time stamp</b>      | WF013      | A date and time stamp is applied to each saved data point.                                            |
| <b>Complete options package</b> | WFCOMP-205 | Includes all functions listed above.                                                                  |

## Specifications

|                                    |                                                                                                                                                                                                               |
|------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Force capacity:</b>             | 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                                                                                                                                     |
| <b>Accuracy:</b>                   | ±0.2% of full scale                                                                                                                                                                                           |
| <b>Wire diameter range:</b>        | AWG30 - AWG 3 [0.01 - 0.25 in (0.3 - 6.3 mm)]                                                                                                                                                                 |
| <b>Minimum sample length:</b>      | 2.1 in (53.3 mm), excluding termination                                                                                                                                                                       |
| <b>Max. elongation:</b>            | 1.7 in (43.2 mm)                                                                                                                                                                                              |
| <b>Power:</b>                      | AC adapter: 100-240VAC, 50-60 Hz, 0.3 A<br>Battery: Rechargeable 8.4V NiMH<br>Low battery indicator appears when battery level is low, and tester powers off automatically when power reaches critical stage. |
| <b>Sampling rate:</b>              | 7,000 Hz                                                                                                                                                                                                      |
| <b>Outputs:</b>                    | <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, ±0.25% of full scale at capacity.            |
| <b>Safe overload:</b>              | 150% of full scale (display shows "OVER" at 110% and above)                                                                                                                                                   |
| <b>Weight:</b>                     | 24.5 lb [11 kg]                                                                                                                                                                                               |
| <b>Environmental requirements:</b> | 40 - 100°F, max. 96% humidity, non-condensating                                                                                                                                                               |
| <b>Warranty:</b>                   | 3 years (see individual statement for further details)                                                                                                                                                        |

## Dimensions in [mm]



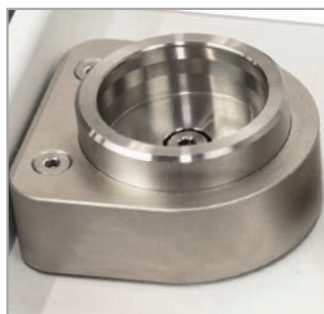
## Optional Items



### 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

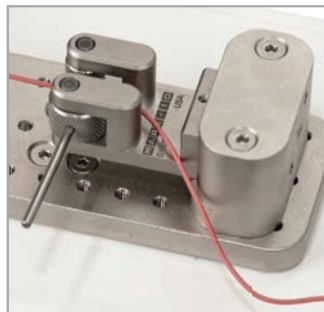
Self-tightening jaws effectively secure the sample. This type of grip is standard on the actuator end, but may also replace the standard turret fixture.



### 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.



### AC1137-1

#### 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.

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## In The Box

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

- (1) Removable lever
- (1) Turret-style terminal fixture (installed)
- (1) Wedge grip assembly (installed)
- (1) USB cable
- (1) Battery (installed)
- (1) AC adapter with 110V US prong
- (1) Certificate of calibration without data (data is optional)



## Ordering Information

| Model                               | Description                          |
|-------------------------------------|--------------------------------------|
| WT-205                              | Wire crimp pull tester               |
| <b>Optional Functions</b>           |                                      |
| WF010                               | Profiles                             |
| WF013                               | Date and time stamp                  |
| WFCOMP-205                          | Complete options package for WT-205  |
| <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            |
| AC1137-1                            | Carrying case                        |
| AC1049                              | Calibration kit                      |
| CERT                                | Certificate of calibration with data |

## Alternative AC Adapter Prongs



All instruments include a 110V AC adapter with US prong style. Select an alternative prong adapter (if required) from the table below.

| Model  | Description                    |
|--------|--------------------------------|
| AC1120 | Prong for AC adapter, 220V EUR |
| AC1121 | Prong for AC adapter, 220V UK  |
| AC1122 | Prong for AC adapter, 220V AUS |