Wire Crimp Pull Tester Model WT-205

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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 en 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® 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.



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Controls & Indicators



Optional Functions

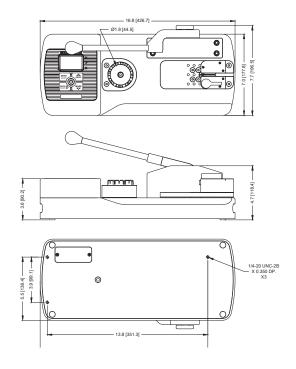
Any of these optional functions may be purchased at time of order or may be enabled in the field at a later date though a simple activation process. A complete options package is also available, including all of the listed features at a discounted price. The tester is shipped in Demo Mode, during which 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. |
| Date and time stamp | WF013 | A date and time stamp is applied to each saved data point. |
| Complete options package | WFC0MP-205 | Includes all functions listed above. |

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 | | |
| Max. elongation: | 1.7 in (43.2 mm) | | |
| Power: | AC adapter: 100-240VAC, 50-60 Hz, 0.3 A Battery: Rechargeable 8.4V NiMH Low battery indicator appears when battery level is low, and tester powers off automatically when power reaches critical stage. | | |
| Sampling rate: | 7,000 Hz | | |
| Outputs: | USB / RS-232: Configurable up to 115,200 baud. Mitutoyo: Serial BCD suitable for all Mitutoyo SPC-compatible devices. Analog: ±1 VDC, ±0.25% of full scale at capacity. | | |
| Safe overload: | 150% of full scale (display shows "OVER" at 110% and above) | | |
| Weight: | 24.5 lb [11 kg] | | |
| Environmental requirements: | 40 - 100°F, max. 96% humidity, non-condensating | | |
| Warranty: | 3 years (see individual statement for further details) | | |

Dimensions in [mm]





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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.



Machinable blank terminal fixture

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



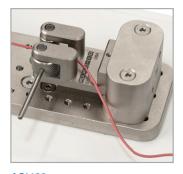
AC1132 Wedge grip assembly

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.



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.



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.



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).



Data Sheet

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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 | | |
| Optional Functions | | | |
| WF010 | Profiles | | |
| WF013 | Date and time stamp | | |
| WFCOMP-205 | Complete options package for WT-205 | | |
| Additional Items to Consider | | | |
| 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







AC1120

AC1121

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 |



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