

Data Sheet

Motorized Force Test Stand ESM

The ESM is a versatile and economical motorized test stand for most compression and tensile testing applications up to 200 lbf. It can accept a wide variety of sample shapes and sizes and can be configured in many positions due to modular design. Speed is adjustable and remote control operation provides added safety during testing. Other features include a manual fine adjustment knob and a stepper motor that prevents speed variation with load, making testing more precise and repeatable. Use any Mark-10 force gauge and force gripping fixtures to create a complete testing solution.

Specifications

| | |
|----------------------------------|--|
| Load capacity: | 200 lbf [1,000 N] |
| Maximum travel: | ≈13 in [330 mm], depending on gauge, gripping fixtures, and sample size |
| Speed range: | 0.5 - 13 in/min [13 - 300 mm/min] |
| Speed setting accuracy: | ±5%, ±0% variation with load |
| Weight (w/o optional equipment): | |
| Test stand: | 20.0 lb [9.1 kg] |
| Control unit: | 2.7 lb [1.2 kg] |
| Power: | Universal input 80-240 VAC, 50/60 Hz |
| Included accessories: | Extension rod, small hook, medium hook, #10-32 coupler, compression plate, force gauge mounting hardware, tool kit |
| Warranty: | 3 years (see individual statement for further details) |

Optional Equipment

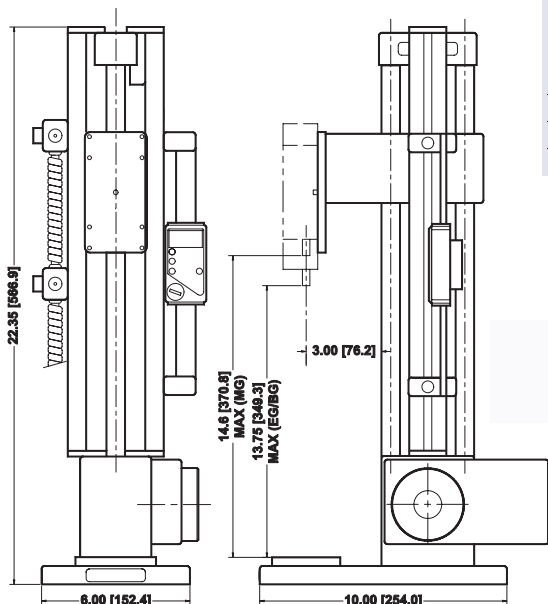
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| Digital travel display ESM001 | 6 in [150 mm] travel, 0.0005 in [0.01 mm] resolution, 0.001 in [0.03 mm] accuracy, SPC output for data collection. |
| Limit switch kit ESM002 | Set of adjustable upper and lower solid state limit switches. |
| Overload protection module 11-1042 | Protects the force gauge against overloads during motorized tests, adjustable from 10 - 150% of gauge's full capacity. Compatible with force gauges equipped with analog output. |
| Set point cable 09-1090 | Stops test stand travel at programmable high and low set points for tension and compression forces. Compatible with force gauges with set point outputs. |
| Column extensions | Available in 6 in, 12 in, 24 in, and custom lengths |



The ESM is shown in a typical tensile testing application, with Series BG digital force gauge, digital travel display, limit switch kit, and wedge grips

Dimensions

in [mm]



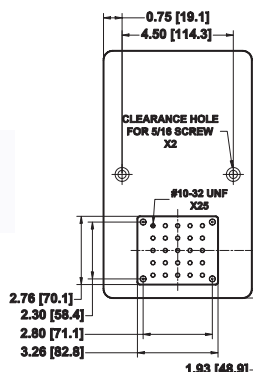
Ordering Information

| Model No. | Description |
|-----------|---|
| ESM | Motorized force measurement test stand, 200 lbf 110V |
| ESME | Motorized force measurement test stand, 200 lbf, 220V |
| ESM001 | Digital travel display |
| ESM002 | Limit switch kit for ESM |
| ESM003-1 | Column extension for ESM/ES30, 6" |
| ESM003-2 | Column extension for ESM/ES30, 12" |
| ESM003-3 | Column extension for ESM/ES30, 24" |
| 11-1042 | Overload protection module, gauge to ESM |
| 09-1090 | Set point cable, gauge to ESM |

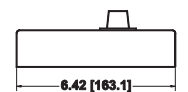
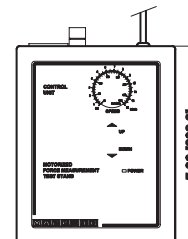
» Limit switch kit



» Digital travel display



BASE PLATE



CONTROL UNIT