



Series R03 smart sensors are designed for tension and compression measurement applications in virtually every industry. Threaded holes on two sides can accept a variety of hooks and implements, making this sensor particularly well suited for inline tests. A shortened cable is available for mounting to certain test stand models (when equipped with optional AC1062 mounting kit)*. Capacities available from 0.25 to 100 lbf [1 to 500 N]. Compatible with Mark-10 indicators (sold separately) through unique Plug & Test® technology. Includes a certificate of calibration with data. A combined certificate for the sensor and an indicator is available at time of order, part no. CERT-SI.

Specifications

| | |
|-----------------------|----------------------------------|
| Accuracy: | ±0.15% of full scale + indicator |
| Safe Overload: | 150% of full scale |
| Weight: | 0.4 lb [0.2 kg] |

Features



Unique Plug & Test® technology allows for interchangeable sensors to be used with any Mark-10 indicator. All calibration and configuration data is saved in the smart connector.



The Plug & Test® connector locks into the receptacle in the indicator when fully inserted. Dual buttons on the indicator housing release the connector for easy removal. Gold plated spring contacts ensure long lasting and reliable connection.



The load cell shaft includes flat surfaces as well as a threaded hole to accommodate attachments.



Series R03 sensor with shortened cable is shown mounted to a legacy ESM1500LC test stand.*

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CERTIFICATE OF CALIBRATION
LONG FORM

| MODEL NO. | 801-100 | RELATIVE HUMIDITY (%) | 47% | | | |
|--------------|---------------------|-----------------------|---------|------------|---------|-------|
| SERIAL NO. | 394205 | TEMPERATURE (°F) | 73.9 °F | | | |
| DESCRIPTION: | DIGITAL FORCE GAUGE | TOLERANCE (mV) | 0.1 | | | |
| CAPACITY: | 100 LBF | RESOLUTION | 0.02 | | | |
| READING | MASTED | TENSION / | ERROR | COE / | SECOI / | ERROR |
| NUMBER | READING | COMPRESSION | %FS | CONVERSION | TYPE | %FS |
| 1 | 10.00 | 10.00 | 0.02 | 1.0 | 0.0 | 0.0 |
| 2 | 20.00 | 20.00 | 0.02 | 2.0 | 0.0 | 0.0 |
| 3 | 30.00 | 30.00 | 0.02 | 3.0 | 0.0 | 0.0 |
| 4 | 40.00 | 40.04 | 0.04 | 4.0 | 0.0 | 0.0 |
| 5 | 50.00 | 50.04 | 0.04 | 5.0 | 0.0 | 0.0 |
| 6 | 60.00 | 60.04 | 0.04 | 6.0 | 0.0 | 0.0 |
| 7 | 70.00 | 70.02 | 0.02 | 7.0 | 0.0 | 0.0 |
| 8 | 80.00 | 80.02 | 0.02 | 8.0 | 0.0 | 0.0 |
| 9 | 90.00 | 90.00 | 0.00 | 9.0 | 0.0 | 0.0 |
| 10 | 100.00 | 100.00 | 0.00 | 10.0 | 0.0 | 0.0 |

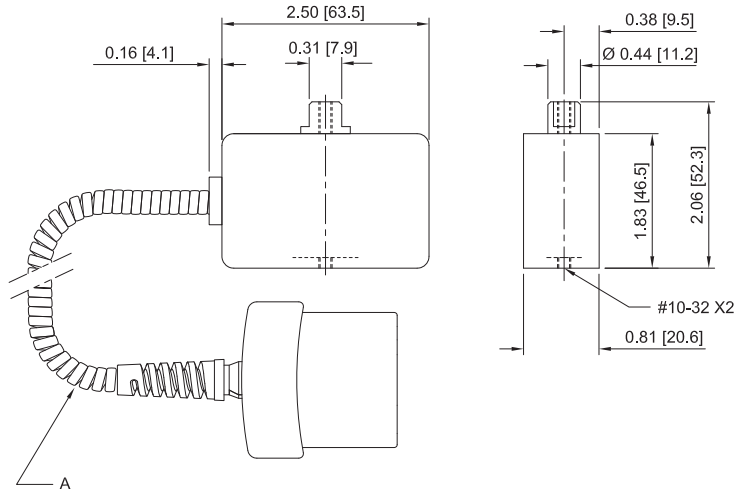
Was this instrument calibrated according to procedures traceable to the National Institute of Standards & Technology (NIST) using calibration equipment traceable to the requirements of ISO 9001:2008 and ISO/IEC 17025:2005. Go to more of the below listed NIST traceability modules (NIST):

70714-021 70714-022 70714-023 70714-024 70714-025 70714-026
70714-A19 70714-D10 70714-D11 70714-D12 70714-A15 70714-D11

By: _____ Date: _____

Included certificate of calibration contains 10 data points in each measuring direction. A combined certificate for the sensor and an indicator is available at time of order, part no. CERT-SI.

Dimensions in [mm]



| Model No. | A |
|-------------|---|
| MR03-XXX | 24 in [610 mm], coiled, when retracted 10 ft [3 m], coiled, when stretched |
| MR03-XXX-1* | 10 in [254 mm], straight* |

Optional Items



AC1062

Test stand mounting kit

Adapts a Series R03 sensor to a legacy ESM303 test stand*. Shown above with a Series R01 sensor.



AC1018

Test stand mounting kit

Adapts a Series R03 sensor to most test stands (except TSB100 and legacy models ESM303, ESM303H, ESM1500, ESM1500S, and ESM750S)

Capacity x Resolution

| Model No. | With Models M71 & M51 indicators | | | | | | With Model M31 indicator | | | |
|-----------|----------------------------------|-----------|------------|-------------|-------------|------------|--------------------------|-----------|-------------|-------------|
| | lbF | ozF | gF | kgF | N | mN | lbF | gF | kgF | N |
| MR03-025* | 0.25 x 0.0001 | 4 x 0.002 | 100 x 0.05 | - | 1 x 0.0005 | 1000 x 0.5 | 0.25 x 0.0002 | 100 x 0.1 | - | 1 x 0.001 |
| MR03-05* | 0.5 x 0.0002 | 8 x 0.005 | 250 x 0.1 | - | 2.5 x 0.001 | 2500 x 1 | 0.5 x 0.0005 | 250 x 0.2 | - | 2.5 x 0.002 |
| MR03-2* | 2 x 0.001 | 32 x 0.02 | 1000 x 0.5 | 1 x 0.0005 | 10 x 0.005 | - | 2 x 0.002 | - | 1 x 0.001 | 10 x 0.01 |
| MR03-5* | 5 x 0.002 | 80 x 0.05 | 2500 x 1 | 2.5 x 0.001 | 25 x 0.01 | - | 5 x 0.005 | - | 2.5 x 0.002 | 25 x 0.02 |
| MR03-10* | 10 x 0.005 | 160 x 0.1 | 5000 x 2 | 5 x 0.002 | 50 x 0.02 | - | 10 x 0.01 | - | 5 x 0.005 | 50 x 0.05 |
| MR03-20* | 20 x 0.01 | 320 x 0.2 | 10000 x 5 | 10 x 0.005 | 100 x 0.05 | - | 20 x 0.02 | - | 10 x 0.01 | 100 x 0.1 |
| MR03-50* | 50 x 0.02 | 800 x 0.5 | 25000 x 10 | 25 x 0.01 | 250 x 0.1 | - | 50 x 0.05 | - | 25 x 0.02 | 250 x 0.2 |
| MR03-100* | 100 x 0.05 | 1600 x 1 | 50000 x 20 | 50 x 0.02 | 500 x 0.2 | - | 100 x 0.1 | - | 50 x 0.05 | 500 x 0.5 |

* Add suffix "-1" for shortened cable, for use on legacy ESM1500LC, ESM1500SLC, ESM750SLC, ESM303, and ESM303H test stands. Ex: MR03-50-1. Test stand mounting hardware is included.