

Series R04 smart sensors are designed for tension and compression measurement applications with tight space constraints. These extremely compact force sensors feature threaded holes on two sides, which can accept a variety of hooks and implements. 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

|                       |                                 |
|-----------------------|---------------------------------|
| <b>Accuracy:</b>      | ±0.2% of full scale + indicator |
| <b>Safe Overload:</b> | 200% of full scale              |
| <b>Weight:</b>        | 0.015 lb [0.007 kg]             |

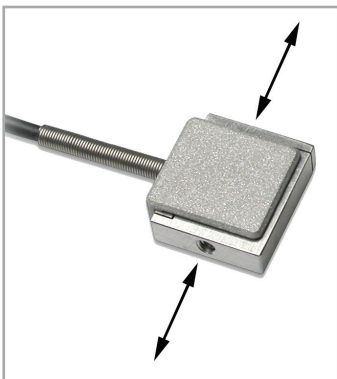
## Features



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.



Force is applied to these surfaces. Threaded holes are supplied on both sides to accommodate various mounting configurations and attachments.

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**CERTIFICATE OF CALIBRATION**  
LONG FORM

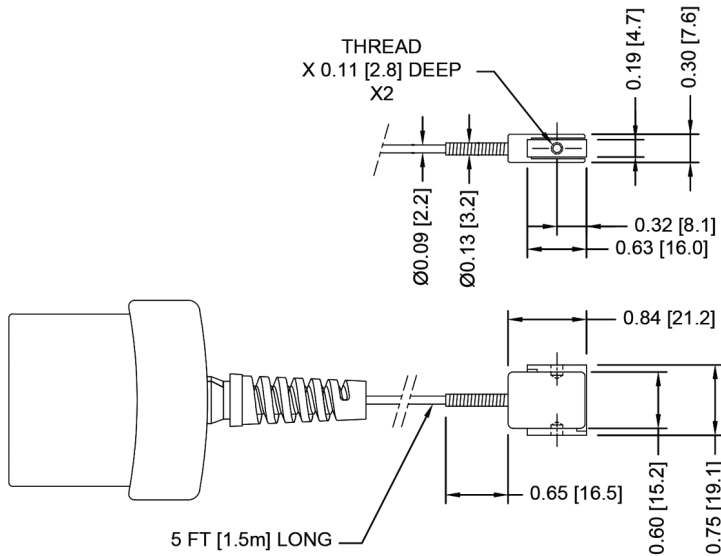
| READING NUMBER | WEIGHT (GROSS) | TENSION (GROSS) | ERROR (GROSS) | COMP. CORRECTED (NET) | ERROR (NET) |
|----------------|----------------|-----------------|---------------|-----------------------|-------------|
| 1              | 10.00          | 10.02           | 0.02          | 10.00                 | 0.00        |
| 2              | 20.00          | 20.02           | 0.02          | 20.00                 | 0.00        |
| 3              | 30.00          | 30.02           | 0.02          | 30.00                 | 0.00        |
| 4              | 40.00          | 40.04           | 0.04          | 40.00                 | 0.00        |
| 5              | 50.00          | 50.04           | 0.04          | 50.00                 | 0.00        |
| 6              | 60.00          | 60.04           | 0.04          | 60.00                 | 0.00        |
| 7              | 70.00          | 70.02           | 0.02          | 70.00                 | 0.00        |
| 8              | 80.00          | 80.02           | 0.02          | 80.00                 | 0.00        |
| 9              | 90.00          | 90.00           | 0.00          | 90.00                 | 0.00        |
| 10             | 100.00         | 100.00          | 0.00          | 100.00                | 0.00        |

RELATIVE HUMIDITY (%) 47%  
TEMPERATURE (°F) 70.0 °F  
TOLERANCE (µF) 0.1

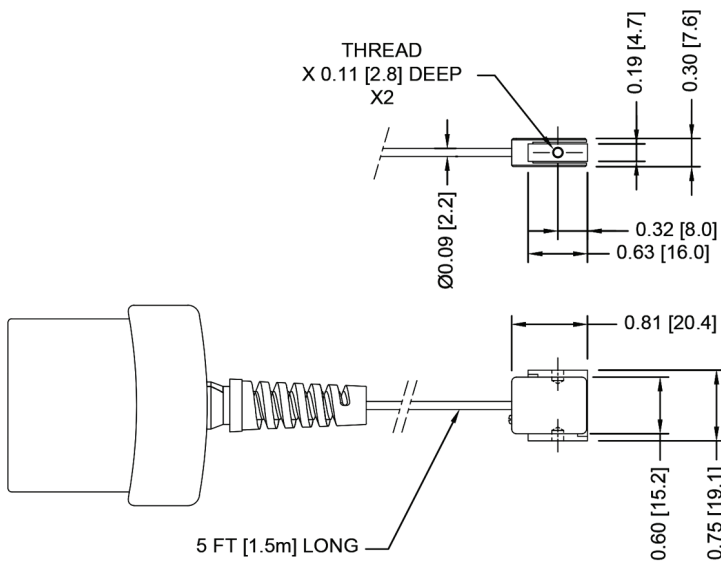
By: \_\_\_\_\_ Date: \_\_\_\_\_

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. | Thread    |
|-----------|-----------|
| MR04-025M | M3 x 0.5  |
| MR04-2    | #4-40 UNC |
| MR04-5    |           |
| MR04-10   |           |
| MR04-20   |           |
| MR04-50   |           |
| MR04-100  |           |



| Model No. | Thread   |
|-----------|----------|
| MR04-05M  | M3 x 0.5 |
| MR04-2M   |          |
| MR04-5M   |          |
| MR04-10M  |          |
| MR04-20M  |          |
| MR04-50M  |          |
| MR04-100M |          |

## Capacity x Resolution

| Model No.            | With Models M71 & M51 indicators |           |            |             |             |            | With Model M31 indicator |           |             |             |
|----------------------|----------------------------------|-----------|------------|-------------|-------------|------------|--------------------------|-----------|-------------|-------------|
|                      | lbF                              | ozF       | gF         | kgF         | N           | mN         | lbF                      | gF        | kgF         | N           |
| MR04-025M            | 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   |
| MR04-05M             | 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 |
| MR04-2 / MR04-2M     | 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   |
| MR04-5 / MR04-5M     | 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   |
| MR04-10 / MR04-10M   | 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   |
| MR04-20 / MR04-20M   | 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   |
| MR04-50 / MR04-50M   | 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   |
| MR04-100 / MR04-100M | 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   |