Data Sheet

Plug and Test[™] Torque Sensors **Series R50**

32-1135 REV 2

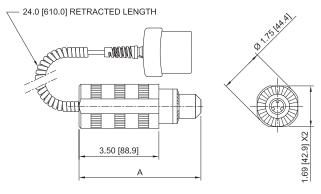


Series R50 smart sensors measure bi-directional torque for a wide variety of applications across virtually all industries. Contain a Jacobs chuck for up to 0.5 in [12.7 mm] diameter samples, bits, or fixtures. The sensors can be used as hand held devices, or mounted to a test stand. Capacities available from 10 ozFin to 100 lbFin [7 to 1150 Ncm]. Compatible with Mark-10 indicators (sold separately) through unique Plug & Test™ technology.

Specifications

| Accuracy: | $\pm 0.35\%$ of full scale $+$ indicator |
|----------------------|--|
| Chuck opening range: | MR50-10Z - MR50-50Z: 0.062 - 0.375 in [1.6 - 9.5 mm] MR50-12 - MR50-100: 0.078 - 0.5 in [2.0 - 12.7 mm] |
| Safe Overload: | MR50-10Z - MR50-50Z: 300% of full scale MR50-12 - MR50-100: 150% of full scale |
| Weight: | From 1.4 lb [0.6 kg] |

Dimensions in [mm]





< Unique Plug & Test™ technology allows for interchangeable sensors to be used with a 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.</p>



^ Optional AC1007 tabletop mounting kit may be used to hold the sensor in place.

| Model No. | Α |
|---------------------|--------------|
| MR50-10Z - MR50-50Z | 4.82 [122.4] |
| MR50-12 - MR50-100 | 5.19 [131.8] |



^ A Series R50 torque sensor is shown mounted to a model TSTM motorized torque test stand. The sensor fits into the stand without the need for additional adapters.

Optional Items

| AC1007 | Mounting kit. | Series R50. | table to |
|--------|---------------|-------------|----------|

Capacity x Resolution

| Model No. | With Models 7i & 5i indicators | | | | | | | With Model 3i indicator | | | | |
|-----------|--------------------------------|------------|------------|-----------|-----------|-----------|------------|-------------------------|-----------|-----------|-----------|-----------|
| | lbFin | ozFin | lbFft | gFcm | kgFmm | Nmm | Ncm | Nm | lbFin | ozFin | kgFmm | Ncm |
| MR50-10Z | - | 10 x 0.005 | - | 700 x 0.5 | 7 x 0.005 | 70 x 0.05 | 7 x 0.005 | - | - | 10 x 0.01 | 7 x 0.005 | 7 x 0.005 |
| MR50-20Z | - | 20 x 0.01 | - | 1400 x 1 | 14 x 0.01 | 140 x 0.1 | 14 x 0.01 | - | - | 20 x 0.02 | 14 x 0.01 | 14 x 0.01 |
| MR50-50Z | - | 50 x 0.02 | - | 3600 x 2 | 36 x 0.02 | 350 x 0.2 | 35 x 0.02 | - | - | 50 x 0.05 | 36 x 0.05 | 35 x 0.05 |
| MR50-12 | 12 x 0.005 | 192 x 0.1 | 1 x 0.0005 | - | - | - | 135 x 0.1 | 1.35 x 0.001 | 12 x 0.01 | 192 x 0.2 | - | 135 x 0.1 |
| MR50-50 | 50 x 0.02 | 800 x 0.5 | 4 x 0.002 | - | - | - | 570 x 0.5 | 5.7 x 0.005 | 50 x 0.05 | 800 x 1 | - | 570 x 0.5 |
| MR50-100 | 100 x 0.05 | 1600 x 1 | 8 x 0.005 | - | - | - | 1150 x 0.5 | 11.5 x 0.005 | 100 x 0.1 | 1600 x 2 | - | 1150 x 1 |





