Data Sheet

Plug and Test® Torque Sensors **Series R50**

32-1135 REV 0524



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. A combined certificate for the sensor and an indicator is available at time of order, part no. CERT-SI.

Specifications

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

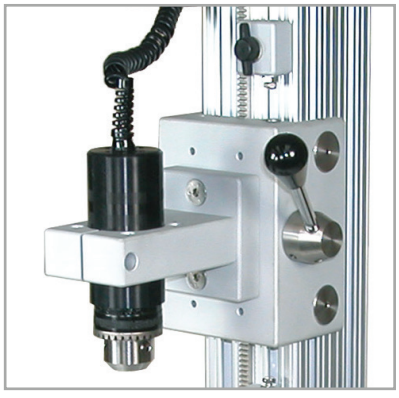
Features



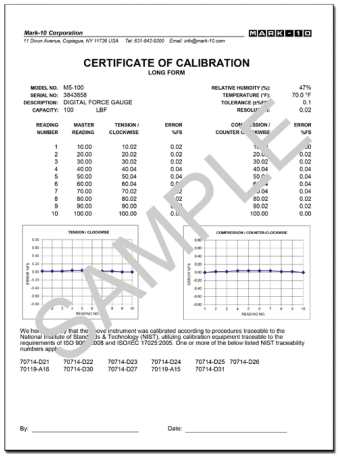
Unique Plug & Test® technology allows for interchangeable sensors to be used with any Mark-10 indicator. All calibration and configuration data is saved in the smart connector.



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.

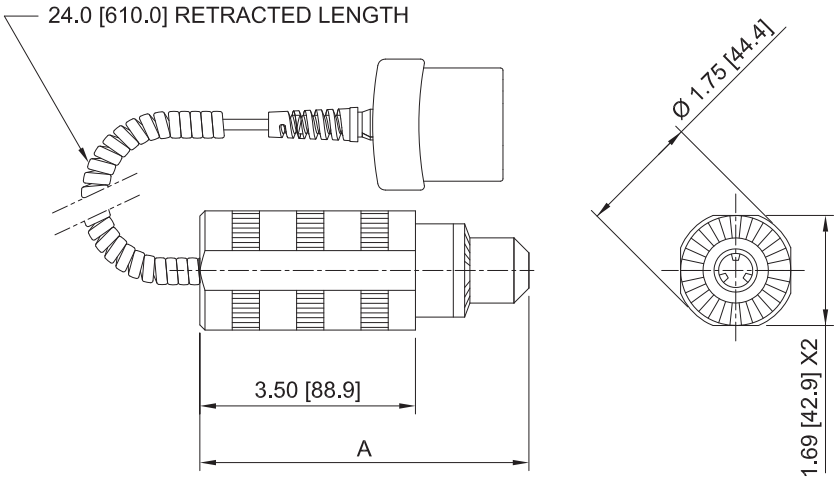


A Series R50 torque sensor is shown mounted to a model TSTM-DC motorized torque test stand. The sensor fits into the stand without the need for additional adapters.



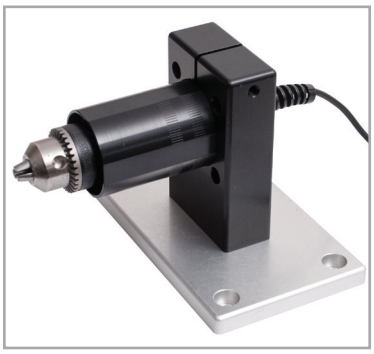
Included certificate of calibration contains 10 data points in each measuring direction. A combined certificate for the sensor and an indicator is available at time of order, part no. CERT-SI.

Dimensions in [mm]



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

Optional Items



AC1007
Tabletop stand for sensor

Secures the sensor in a horizontal orientation.

Capacity x Resolution

Model No.	With Models M7I & M5I indicators								With Model M3I 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