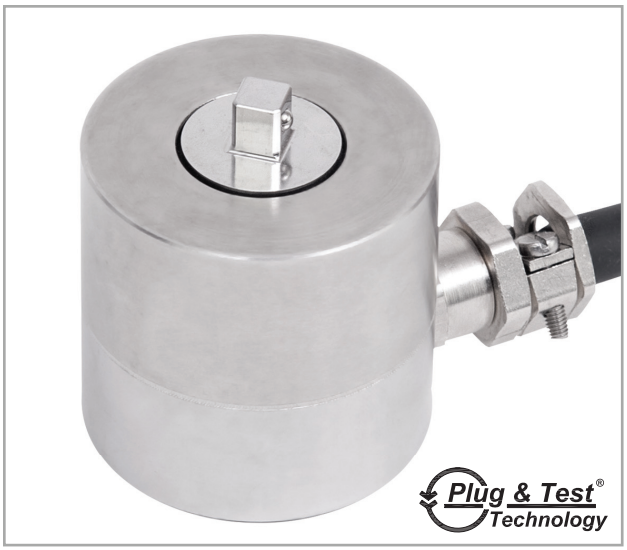
Data Sheet

Plug and Test® Torque Sensors **Series R55**

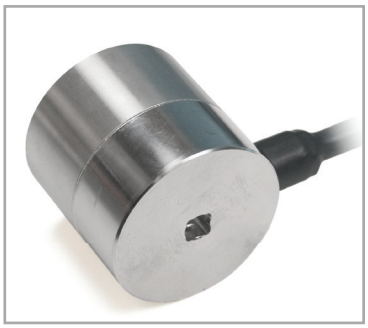
32-1170 REV 0524



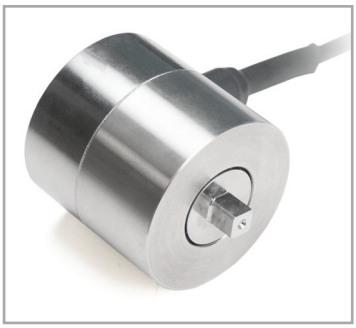
This rugged series of torque sensors is ideal for a wide range of torque testing applications in numerous industries. Square drives on both ends permit inline use with a torque wrench, or for use in OEM and other applications. Capacities available from 20 to 5,000 lbfin (2 to 550 Nm). Compatible with 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

Accuracy:	±0.6% of full scale + indicator
Safe overload:	150% of full scale
Weight:	MR55-20 - MR55-1000: 1.3 lb [0.6 kg] MR55-5000: 1.9 lb [0.9 kg]



▲ Female square drive on side 1



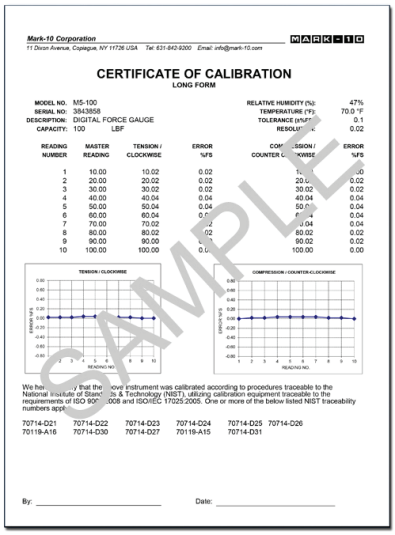
▲ Male square drive on side 2



◀ 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.


Mark-10 Corporation
11 Dixon Avenue, Copiague, NY 11726 USA Tel: 631-842-9200 Email: info@mark-10.com

MARK-10

CERTIFICATE OF CALIBRATION
LONG FORM

MODEL NO. M5-100
SERIAL NO. 3843858
DESCRIPTION: DIGITAL FORCE GAUGE
CAPACITY: 100 LBF

RELATIVE HUMIDITY (%): 47%
TEMPERATURE (°F): 70.0 °F
TOLERANCE (±%F): 0.1
RESOLUTION: 0.02

READING NUMBER	MASTER READING	TENSION / CLOCKWISE	ERROR %FS	COMPRESSION / COUNTER-CLOCKWISE	ERROR %FS
1	10.00	10.02	0.02	10.02	0.02
2	20.00	20.02	0.02	20.02	0.02
3	30.00	30.02	0.02	30.02	0.02
4	40.00	40.04	0.04	40.04	0.04
5	50.00	50.04	0.04	50.04	0.04
6	60.00	60.04	0.04	60.04	0.04
7	70.00	70.02	0.02	70.04	0.04
8	80.00	80.02	0.02	80.02	0.02
9	90.00	90.00	0.00	90.02	0.02
10	100.00	100.00	0.00	100.00	0.00

TENSION / CLOCKWISE
COMPRESSION / COUNTER-CLOCKWISE
ERROR %FS
READING NO.

We hereby certify that the above instrument was calibrated according to procedures traceable to the National Institute of Standards & Technology (NIST), utilizing calibration equipment traceable to the requirements of ISO 9001:2008 and ISO/IEC 17025:2005. One or more of the below listed NIST traceability numbers apply:

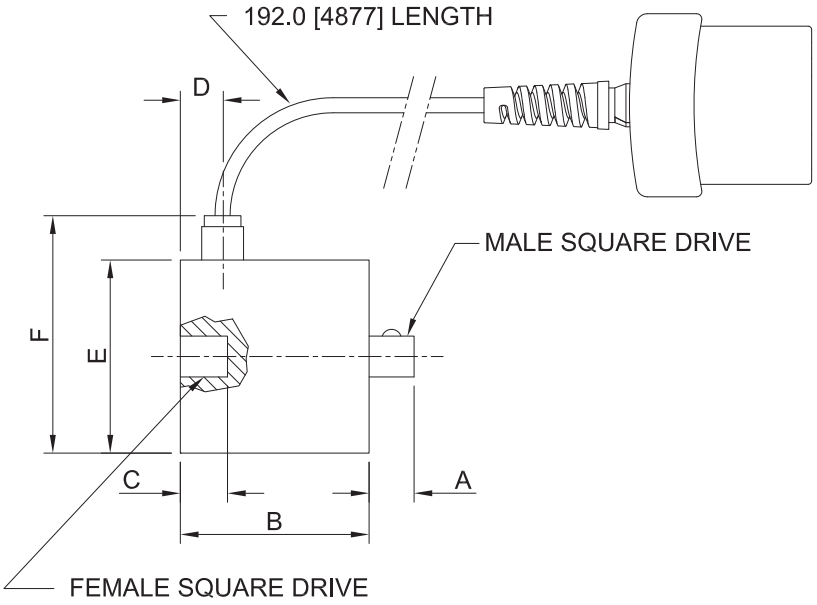
70714-D21 70714-D22 70714-D23 70714-D24 70714-D25 70714-D26
70119-A16 70714-D30 70714-D27 70119-A15 70714-D31

By: _____ Date: _____

SAMPLE

◀ 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.	Drive Size	A	B	C	D	ØE	F
MR55-20 - MR55-100	1/4"	0.30 [0.75]	1.73 [44.0]	0.32 [8.0]	0.39 [10.0]	1.77 [45.0]	2.32 [59.0]
MR55-200 - MR55-400	3/8"	0.41 [10.5]	1.73 [44.0]	0.43 [11.0]			
MR55-1000	1/2"	0.59 [15.0]		0.63 [16.0]			
MR55-5000	3/4"	0.89 [22.5]	2.11 [53.5]	0.94 [24.0]	0.77 [19.5]	2.01 [51.0]	2.56 [65.0]

Capacity x Resolution

Model No.	With Models M7I & M5I indicators						With Model M3I indicator			
	lbFin	ozFin	lbFft	kgFmm	Ncm	Nm	lbFin	ozFin	kgFmm	Ncm
MR55-20	20 x 0.02	320 x 0.2	1.5 x 0.002	-	220 x 0.2	2 x 0.002	20 x 0.02	320 x 0.5	-	220 x 0.2
MR55-50	50 x 0.05	800 x 0.5	4 x 0.005	-	570 x 0.5	5.7 x 0.005	50 x 0.05	800 x 1	-	570 x 0.5
MR55-100	100 x 0.1	1600 x 1	8 x 0.01	-	1150 x 1	11.5 x 0.01	100 x 0.1	1600 x 2	-	1150 x 1
MR55-200	200 x 0.2	-	16 x 0.02	2300 x 2	2200 x 2	22 x 0.02	200 x 0.2	-	2300 x 2	2200 x 2
MR55-400	400 x 0.5	-	32 x 0.05	4600 x 5	4500 x 5	45 x 0.05	400 x 0.5	-	4600 x 5	4500 x 5
MR55-1000	1000 x 1	-	80 x 0.1	11500 x 10	11000 x 10	110 x 0.1	1000 x 1	-	11500 x 10	11000 x 10
MR55-5000	5000 x 5	-	400 x 0.5	55 x 0.05 kgFm	55000 x 50	550 x 0.5	5000 x 5	-	55 x 0.05 kgFm	550 x 0.5 Nm