Data Sheet

Plug and Test® Force Sensors **Series R03**

32-1132 REV 0524



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.



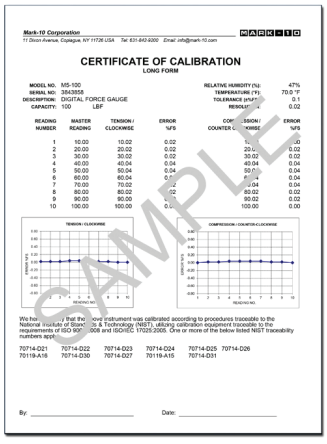
The Plug & Test® connector locks into the receptacle in the indicator when fully inserted. Dual buttons on the indicator housing release the connector for easy removal. Gold plated spring contacts ensure long lasting and reliable connection.



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

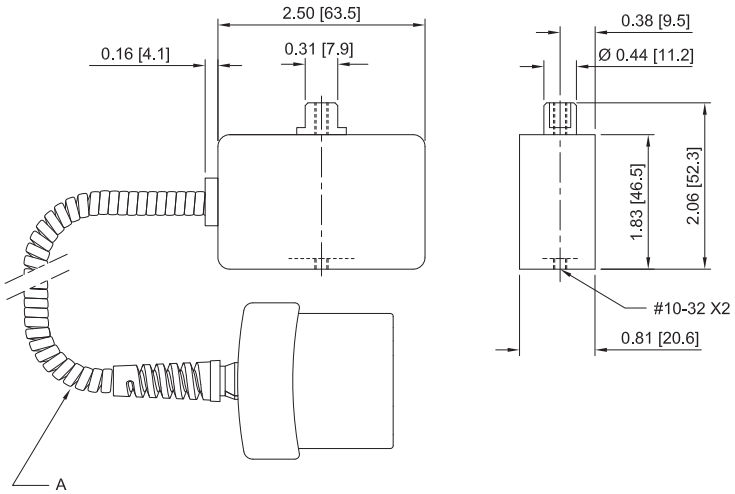


Series R03 sensor with shortened cable is shown mounted to a legacy ESM1500LC test stand.*



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 aboave 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 M7I & M5I indicators						With Model M3I 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.