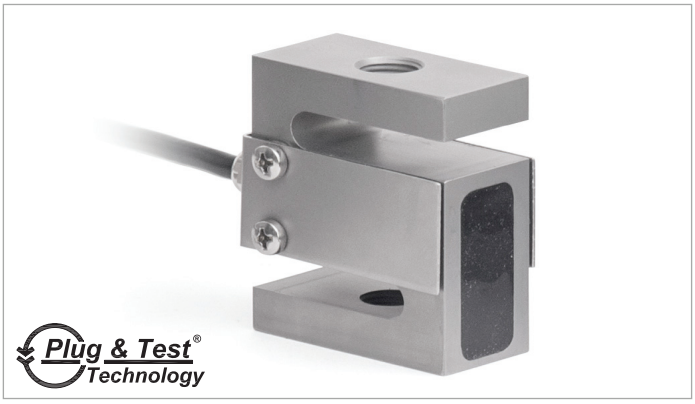
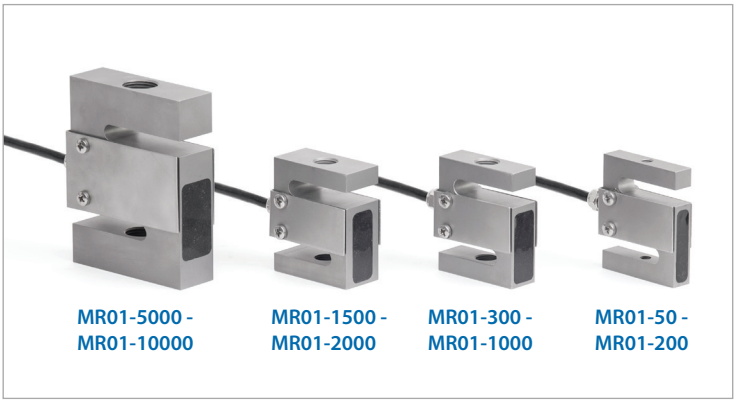
Data Sheet

Plug and Test® Force Sensors **Series R01**

32-1130 REV 0524





Series R01 rugged smart sensors are designed for measuring tension and compression force, with applications in virtually every industry. Durable S-Beam design with threaded holes on two sides allows for many configurations. The sensor can be integrated into an existing system or mounted to a Mark-10 test stand. A shortened cable is available for mounting to certain test stand models (when equipped with optional AC1062 mounting kit)*. Capacities available from 50 to 10,000 lbF [250 N to 50 kN]. 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:	1.9 to 3.0 lb [0.9 to 1.4 kg], depending on model

Features



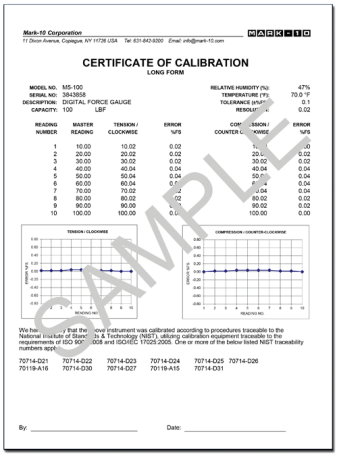
- Unique Plug & Test® technology allows for interchangeable sensors to be used with any Mark-10 indicator. All calibration and configuration data is saved in the smart connector.



- Series R01 sensor with shortened cable is shown mounted to a legacy ESM1500LC test stand.*

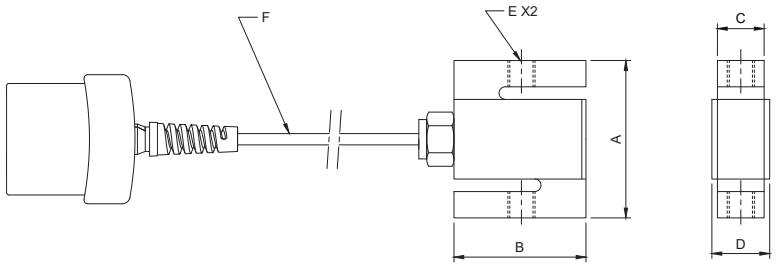


- The Plug & Test® connector locks into the receptacle in the indicator housing release the connector for easy removal. Gold plated spring contacts ensure long lasting and reliable connection.



- 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	B	C	D	E	F
MR01-50	2.40 [61.0]	2.00 [50.8]	0.46 [11.7]	0.90 [22.9]	1/4-28 UNF	MR01-XXXXX: 20 ft [6 m] MR01-XXXX-1* 10 in [254 mm]*
MR01-100						
MR01-200						
MR01-300			0.71 [18.0]	1.10 [27.9]	1/2-20 UNF	
MR01-500						
MR01-750						
MR01-1000						
MR01-1500			0.96 [24.4]	1.40 [35.6]		
MR01-2000						
MR01-5000	3.90 [99.1]	3.00 [76.2]			3/4-16 UNF	
MR01-10000			1.21 [30.7]	1.63 [41.4]		

Optional Items



AC1062
Test stand mounting kit
Adapts a Series R01 sensor to a legacy ESM303 test stand*.



AC1018
Test stand mounting kit
Adapts a Series R01 sensor to most test stands (except TSB100 and legacy models ESM303, ESM303H, ESM1500, ESM1500S, ESM750, and ESM750S)

Capacity x Resolution

Model No.	With Models M7I & M5I indicators						With Model M3I indicator			
	lbF	ozF	gF	kgF	N	kN	lbF	kgF	N	kN
MR01-50	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	-
MR01-100	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	-
MR01-200	200 x 0.1	3200 x 2	-	100 x 0.05	1000 x 0.5	1 x 0.0005	200 x 0.2	100 x 0.1	1000 x 1	-
MR01-300	300 x 0.2	4800 x 5	-	150 x 0.1	1500 x 1	1.5 x 0.001	300 x 0.5	150 x 0.2	1500 x 2	-
MR01-500	500 x 0.2	8000 x 5	-	250 x 0.1	2500 x 1	2.5 x 0.001	500 x 0.5	250 x 0.2	2500 x 2	-
MR01-750	750 x 0.5	12000 x 10	-	375 x 0.2	3750 x 2	3.75 x 0.002	750 x 0.5	375 x 0.2	3750 x 2	-
MR01-1000	1000 x 0.5	16000 x 10	-	500 x 0.2	5000 x 2	5 x 0.002	1000 x 1	500 x 0.5	5000 x 5	-
MR01-1500	1500 x 1	24000 x 20	-	750 x 0.5	7500 x 5	7.5 x 0.005	1500 x 2	750 x 1	7500 x 10	-
MR01-2000	2000 x 1	32000 x 20	-	1000 x 0.5	10000 x 5	10 x 0.005	2000 x 2	1000 x 1	10000 x 10	-
MR01-5000	5000 x 2	-	-	2500 x 1	25000 x 10	25 x 0.01	5000 x 5	2500 x 2	-	25 x 0.02
MR01-10000	10000 x 5	-	-	5000 x 2	50000 x 25	50 x 0.02	10000 x 10	5000 x 5	-	50 x 0.05

* Add suffix "-1" for shortened cable, for use on legacy ESM1500LC, ESM1500SLC, ESM750SLC, ESM303, and ESM303H test stands. Ex: MR01-1000-1.
Test stand mounting hardware is included with "-1" versions.
Note that MR01-5000 and MR01-10000 cannot be mounted to legacy ESM303 or ESM303H test stands.