## Data Sheet

## Plug and Test™ Force Sensors Series R01

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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.

#### Specifications

Accuracy:	$\pm 0.15\%$ 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.



< 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>



Series R01 sensor with shortened cable is shown mounted to an ESM1500LC test stand.\*



Included certificate of calibration contains 10 data points in each measuring direction.





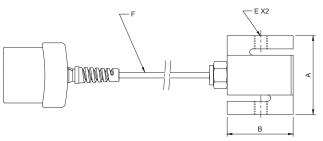


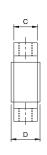
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### **Dimensions**





Model No.	А	В	C	D	Е	F		
MR01-50	2.40 [61.0]	2.00 [50.8]	0.46 [11.7]	0.65 [16.5]	1/4-28 UNF			
MR01-100								
MR01-200								
MR01-300			0.71 [18.0]	0.90 [22.9]	1/2-20 UNF	MR01-XXXXX: 20 ft [6 m] MR01-XXXX-1* 10 in [254 mm]*		
MR01-500								
MR01-750								
MR01-1000								
MR01-1500			0.96	1.15 [29.2]				
MR01-2000								
MR01-5000	3.90	3.00	[24.4]		3/4-16 UNF			
MR01-10000	[99.1]	[76.2]						

### **Optional Items**



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



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

### Capacity x Resolution

Model No.	With Models 7i & 5i indicators						With Model 3i 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

<sup>\*</sup> Add suffix "-1" for shortened cable, for use on the 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 the ESM303 or ESM303H test stands.





