

AVAILABLE
with Signature
Calibration
SEE PG. IN-4

Rod End In-Line Tension Load Cells

Models RM and RF

100 TO 200,000 LBS.

HERMETICALLY SEALED

0-5VDC OR 4-20mA OPTION



SENSOTEC's Model RM and RF Rod End In-Line load cells are designed with a unique sensing element. This unique design results in rejection of off center loads. In addition, side load resistance has been enhanced in the 2,000 lb. to 50,000 lb. range on both male and female cells. To achieve additional stability and ruggedness the threads are machined as an integral part of the load cell on both the RM and RF. Each unit is constructed of 17-4 PH stainless steel and is hermetically sealed for use in corrosive and very high humidity environments.

PERFORMANCE

	Model RM	Model RF
Load Ranges	100 to 200,000 lbs.	100 to 200,000 lbs.
Non-repeatability (max)	±0.05% F.S.	±0.05% F.S.
Output (std)	2mV/V	2mV/V
Resolution	Infinite	Infinite

ENVIRONMENTAL

Linearity	100-1000 lbs. ±0.2% F.S.	2000-50,000 lbs. ±0.15% F.S.	75,000 to 200,000 lbs. ±0.2% F.S.
Hysteresis	±0.2% F.S.	±0.15% F.S.	±0.2% F.S.
Temperature, Operating	-65° F to 250° F	-65° F to 250° F	-65° F to 250° F
Temperature, Compensated	60° F to 160° F	60° F to 160° F	60° F to 160° F
Temperature Effect			
- Zero (max)	0.05% F.S./° F		.005% F.S./° F
- Span (max)005% Rdg./° F		.005% Rdg./° F

ELECTRICAL

Strain Gage Type	Bonded foil	Bonded foil
Excitation (calibration)	10VDC	10VDC
Excitation (acceptable)	Up to 15VDC or AC	Up to 15VDC or AC
Insulation Resistance	5000 megohms @ 50 VDC	5000 megohms @ 50VDC
Bridge Resistance	350 ohms	350 ohms
Shunt Calibration Data	Included	Included
Wiring Code (std)	#2 (See Pg. AP-8)	#2 (See Pg. AP-8)
Electrical Termination (std)		
250 to 50,000 lbs.....	PTIH-10-6P or equiv. (Hermetic stainless)	PTIH-10-6P or equiv. (Hermetic stainless)
75,000 to 200,000 lbs.....	MS3102E-14S-6P	MS3102E-14S-6P
Mating Connector (not incl.)		
250 to 50,000 lbs.....	PT06A-106S or equiv.	PT06A-10-6S or equiv.
75,000 to 200,000 lbs.....	MS3106A-14S-6S or equiv.	MS3106A-14S-6S or equiv.

MECHANICAL

Static Overload Capacity	50% over capacity	50% over capacity
Thread Size	See dimension table	See dimension table
Deflection—Full Scale		
250 to 5000 lbs.....	.003"	.003"
7500 to 200,000 lbs.....	.004"	.004"
Casing Material	17-4 PH Stainless	17-4 PH Stainless

INTERNALLY AMPLIFIED UNITS (Optional)

Output Available	0-5VDC, 4-20mA	0-5VDC, 4-20mA
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Notes: Standard calibration is positive in tension

Options (See Appendix)

Temperature compensation 1b, 1c, 1d 1e, 1f; Electrical terminations 6e, 6f, 6g, 6i, 6j; Int. shunt calibration 8a; Signature Calibration 53e

Consult factory for A & B dimensional changes when ordering non-standard electrical termination.

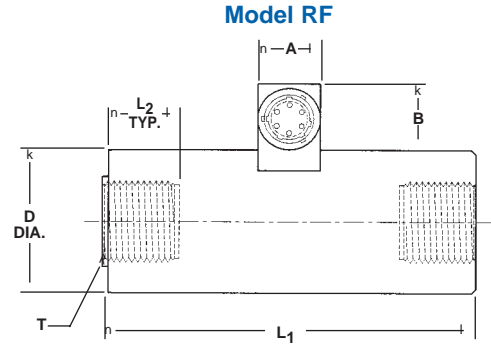
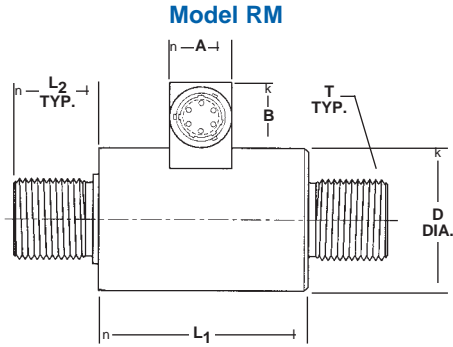
Premium Options: 1i; 2b, 2c, 2j, 2k; 3a, 3b, 3c, 3d; 9a, 9b; 12b

Accessories: Mating connectors and connector/cable assemblies; Rod end attachments for RM

1-800-848-6564

SENSOTEC

Dimensions



Model RM - Male
Frame Size Matrix

Order Code	D" Dia.	L1"	A"	B"	L2"
AL413	1.50	2.60	.75	.82	See bottom row of order code chart.
AL415	1.75	2.60	.75	.82	
AL417	2.50	3.05	.75	.82	

Model RF - Female
Frame Size Matrix

Order Code	D" Dia.	L1"	A"	B"	L2"
AL414	1.50	4.25*	.75	.82	See bottom row of order code chart.
AL416	1.75	5.00	.75	.82	
AL418	2.50	7.00	.75	.82	

*4.75 for 3/4-16 thread.

1. ORDER CODE SELECTION: Locate the **load range** and **thread** required for your application on the chart below. The correct **ORDER CODE** is indicated where the load range and thread type intersect. **Note: Highlighted order codes are standard.** Load ranges below 2,000 lbs. or over 50,000 lbs. are shown in the lower set of charts.

Example:



Model RM - Male

Range	Thread Sizes				
	13a 1/2-20	13b 3/4-16	13c 7/8-14	13d 1-14	13e 1-1/2-12
2,000 lbs.	AL413	AL413	AL413		
3,000 lbs.	AL413	AL413	AL413		
4,000 lbs.	AL413	AL413	AL413		
5,000 lbs.	AL413	AL413	AL413		
7,500 lbs.		AL415	AL415	AL415	AL417
10,000 lbs.		AL415	AL415	AL415	AL417
15,000 lbs.		AL415	AL415	AL415	AL417
20,000 lbs.			AL415	AL415	AL417
30,000 lbs.					AL417
50,000 lbs.					AL417
L2 Length	.950"	.950"	.950"	1.250"	1.50"

Model RF - Female

Range	Thread Sizes				
	13a 1/2-20	13b 3/4-16	13c 7/8-14	13d 1-14	13e 1-1/2-12
2,000 lbs.	AL414	AL414			
3,000 lbs.	AL414	AL414			
4,000 lbs.	AL414	AL414			
5,000 lbs.	AL414	AL414			
7,500 lbs.		AL416	AL416	AL416	AL418
10,000 lbs.		AL416	AL416	AL416	AL418
15,000 lbs.		AL416	AL416	AL416	AL418
20,000 lbs.			AL416	AL416	AL418
30,000 lbs.					AL418
50,000 lbs.					AL418
L2 Length	.750"	.750**	.850"	1.00"	1.50"

**1.00" on ranges 7500 lbs.

Additional Male Load Ranges
(Use Order Code AL411)

Load Ranges	Thread Type	D"	L1"	L2"
100, 250, 500 lbs.	3/8-24 UNF	1.25	1.50	0.50
1,000 lbs.	1/2-20 UNF	1.25	2.00	0.63
75,000 lbs. or 100,000 lbs.	2-1/2-12 UN	3.50	4.00	3.00
150,000 lbs. or 200,000 lbs.	3-1/2-8 UNF	4.50	5.00	4.00

Additional Female Load Ranges
(Use Order Code AL412)

Load Ranges	Thread Type	D"	L1"	L2"
100, 250, 500 lbs.	3/8-24 UNF	1.25	2.50	0.44
1,000 lbs.	1/2-20 UNF	1.25	3.00	0.63
75,000 lbs. or 100,000 lbs.	2-1/2-12 UN	4.50	14.00	3.50
150,000 lbs. or 200,000 lbs.	3-1/2-8 UNF	5.50	18.00	4.50

2. INDICATE LOAD RANGE: From the table below, choose the order code for your LOAD RANGE.

Example: AL415



Load Ranges	Order Code	Load Ranges	Order Code	Load Ranges	Order Code
100	BR	4,000	DP	30,000	EN
250	CN	5,000	DR	50,000	EP
500	CR	7,500	DT	75,000	ER
1,000	CV	10,000	DV	100,000	ET
2,000	DL	15,000	EJ	150,000	FJ
3,000	DN	20,000	EL	200,000	FL

3. INDICATE THREAD SIZE: Refer to page AP-21 and choose the option code for your THREAD SIZE.

Example: AL415 EJ,

