

AVAILABLE
with Signature
Calibration
SEE PG. IN-5

Rod End In-Line Tension Load Cells

Models RM, RH and RF

2000 TO 200,000 LBS.

HERMETICALLY SEALED

0-5VDC OR 4-20mA OPTION



Model RM



Model RH



Model RF

Model RM, RH 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. Each unit is constructed of 17-4 PH stainless steel and is hermetically sealed for use in corrosive and very high humidity environments.

Model RM, Model RH, Model RF

PERFORMANCE

Load Ranges	2000 to 200,000 lbs.
Non-repeatability (max)	±0.05% F.S.
Output (std)	2mv/v
Resolution	Infinite

ENVIRONMENTAL

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

ELECTRICAL

Strain Gage Type	Bonded foil
Excitation (calibration)	10VDC
Excitation (acceptable)	Up to 15VDC or AC
Insulation Resistance	5000 megohm @ 50VDC
Bridge Resistance	350 ohms
Shunt Calibration Data	Included
Wiring Code (std)	#2 (See Pg. AP-7)
Electrical Termination (std).....	PTIH-10-6P or equiv.
2000 to 50,000 lbs.....	(Hermetic stainless)
75,000 to 200,000 lbs.....	MS3102E-14S-6P
Mating Connector (not incl.)	PT06A-10-6S or equiv.
2000 to 50,000 lbs.....	MS3106A-14S-6S or equiv.
75,000 to 200,000 lbs.....	

MECHANICAL

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

INTERNALLY AMPLIFIED UNITS (Optional)

Outputs Available	0-5VDC, 4-20ma
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Options (See Appendix)

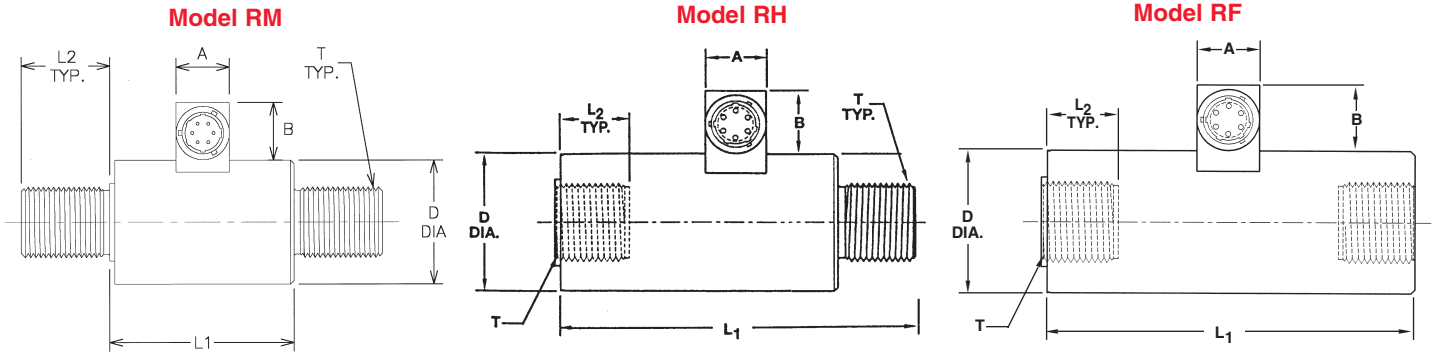
Temp. compensation 1b, 1c, 1d, 1e, 1f; Electrical terminations 6e, 6f, 6g, 6i, 6j; Int. shunt cal 8a (See pg. AP-18) Signature calibration 53e

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

Premium Options: 1i; 2b, 2c 2j, 2k; 3a, 3c, 3d; 9a, 9b; 12b (See Pg. AP-18)

Accessories: Mating connectors and connector/cable assemblies; Rod end attachments for RM (See Pg. AP-2)

Dimensions



Model RM Male/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 RH Male/Female	Model RF Female/Female	Frame Size Matrix				
Order Code	Order Code	D" Dia.	L1"	A"	B"	L2"
AL419	AL414	1.50	4.25	.75	.82	See bottom row of order code chart.
AL420	AL416	1.75	5.00	.75	.82	
AL424	AL418	2.50	7.00	.75	.82	

1. ORDER CODE SELECTION CHART: 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 the option code indicated for your thread size.** Highlighted order codes indicate preferred range/thread configurations.

EXAMPLE: **AL415**

Standard Ranges Model RM - Male/Male					
Range	Thread Sizes & Option Codes				
	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	.95"	.95"	.95"	1.25"	1.5"

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

EXAMPLE: **AL415 EJ**

Load Range	Order Code	Load Range	Order Code	Load Range	Order Code
2,000	DL	10,000	DV	75,000	ER
3,000	DN	15,000	EJ	100,000	ET
4,000	DP	20,000	EL	150,000	FJ
5,000	DR	30,000	E	200,000	FL
7,500	DT	50,000	EP		

3. INDICATE THREAD SIZE: The option code for your **THREAD SIZE** is shown on the order code selection chart.

EXAMPLE: **AL415 EJ, 13d**

Standard Ranges Model RH - Male/Female Model RF - Female/Female						
Range		Thread Sizes & Option Codes				
		13a 1/2-20	13b 3/4-16	13c 7/8-14	13d 1-14	13e 1-1/2-12
2,000 lbs.	RH	AL419	AL419			
	RF	AL414	AL414			
3,000 lbs.	RH	AL419	AL419			
	RF	AL414	AL414			
4,000 lbs.	RH	AL419	AL419			
	RF	AL414	AL414			
5,000 lbs.	RH	AL419	AL414			
	RF	AL414	AL414			
7,500 lbs.	RH		AL420	AL420	AL420	AL424
	RF		AL416	AL416	AL416	AL418
10,000 lbs.	RH		AL420	AL420	AL420	AL424
	RF		AL416	AL416	AL416	AL418
15,000 lbs.	RH		AL420	AL420	AL420	AL424
	RF		AL416	AL416	AL416	AL418
20,000 lbs.	RH			AL420	AL420	AL424
	RF			AL416	AL416	AL418
30,000 lbs.	RH					AL424
	RF					AL418
50,000 lbs.	RH					AL424
	RF					AL418
L2 Length		.75"	.95"	.95"	1.0"	1.5"

Non-standard Ranges Model RH, Order Code AL425 Model RF, Order Code AL412					
Load Ranges	Thread Type	D"	L1"	L2"	
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	

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传真：0755-83376182 (0) 13902971329 MSN: SUNS8888@hotmail.com

邮编：518033 E-mail:szss20@163.com QQ: 195847376

深圳赛格展销部：深圳华强北路赛格电子市场 2583 号 电话：0755-83665529 25059422

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西安分公司：西安高新开发区 20 所(中国电子科技集团导航技术研究所)

西安劳动南路 88 号电子商城二楼 D23 号

TEL: 029-81022619 13072977981 FAX:029-88789382