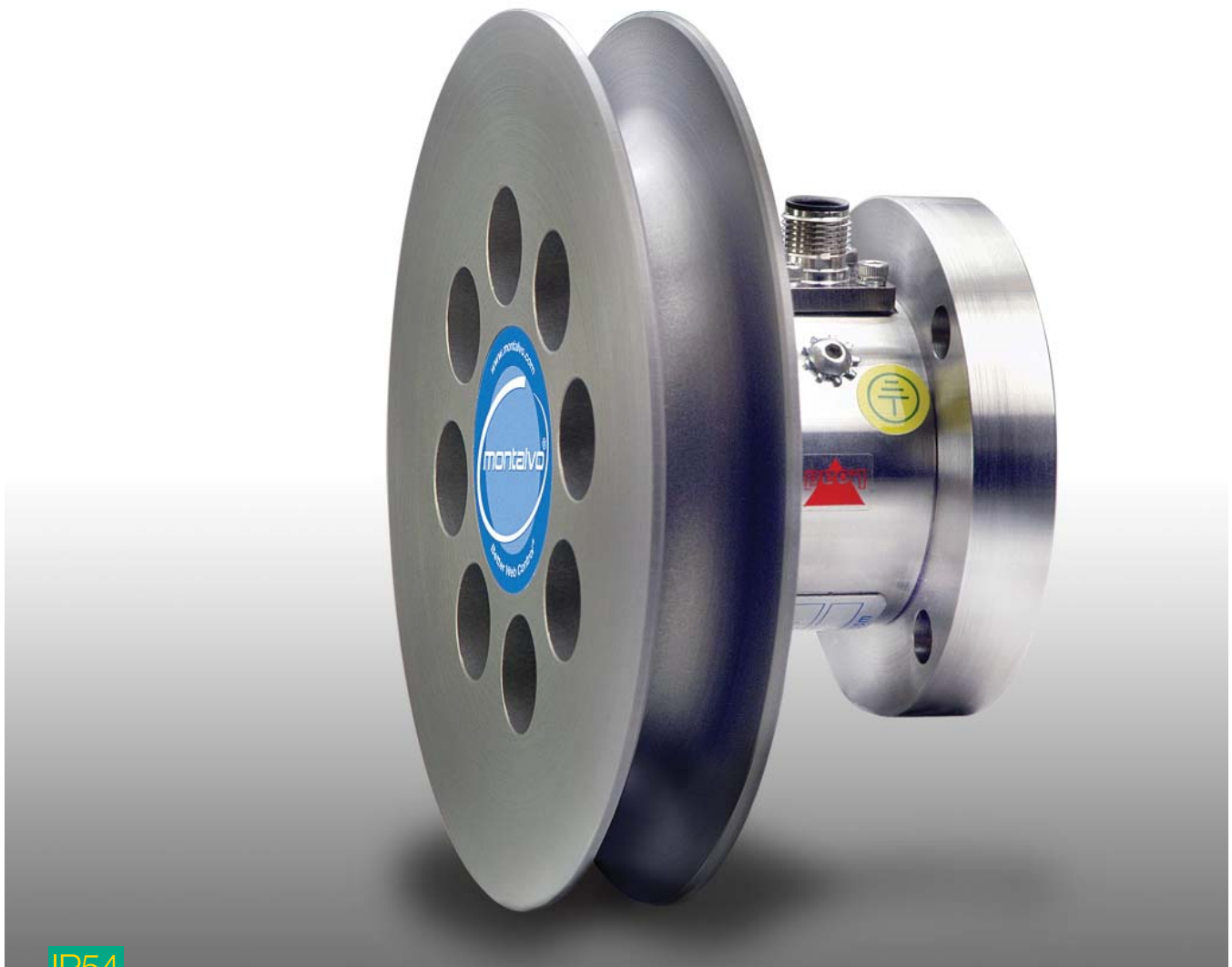


R-Series

Ribbon and Filament Load Cells



IP54

Montalvo R-Series Ribbon and Filament Load Cells

The R-Series load cell is used primarily for ribbon, wire and filament applications. It is based on our ES-Series tension sensing body and incorporates a web pulley that is manufactured to customer specifications. Ultimate performance is derived from two factors - we start with the best of our tension sensing technology and engineer it to seamlessly integrate into your web process. The R-Series can adapt to virtually any application with a wide variety of load ranges, mounting options and pulley finishes. See the worksheet for details.

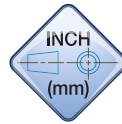
Features

- ▶ Wide load ranges
- ▶ Variety of mounting options
- ▶ Many surface finishes and coatings
- ▶ Engineered to fit virtually any application



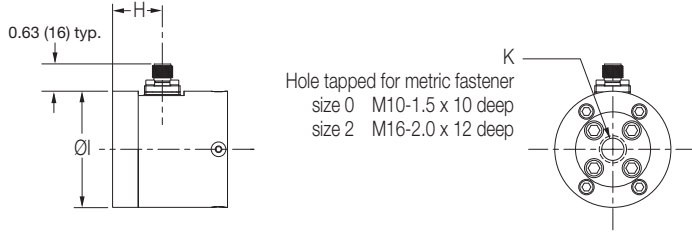
R-Series

Ribbon and Filament Load Cells



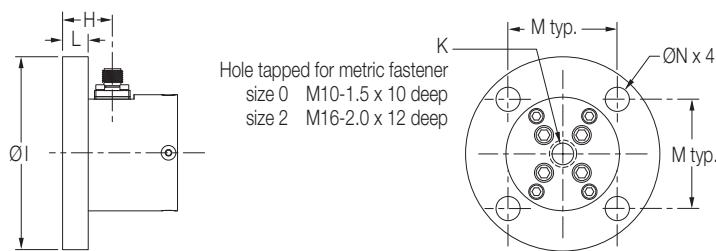
Dimensions

SR mount



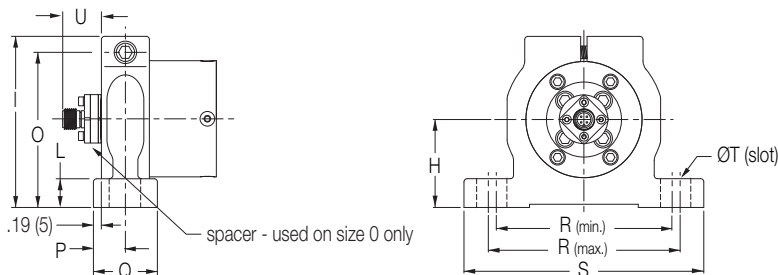
Model	H	ØI	K
SR0	1.12 (28.50)	2.26 (57.50)	M10-1.5x10
SR2	1.22 (31)	2.85 (72.50)	M16-2.0x12

FR mount



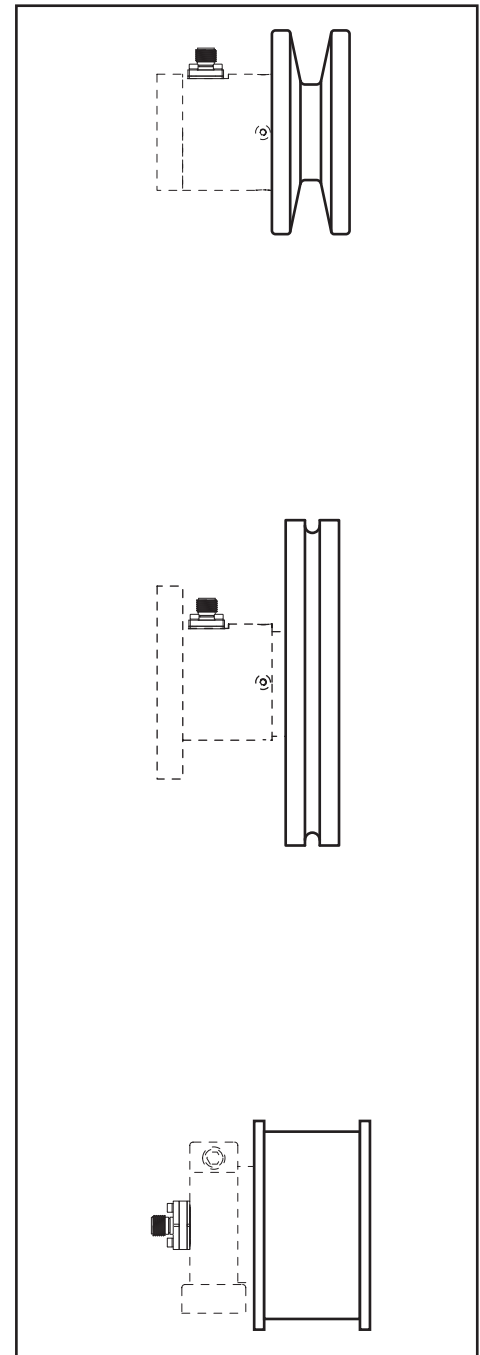
Model	H	ØI	K	L	M	N
FR0	1.12 (28.50)	3.50 (89)	M10-1.5x10	0.59 (14)	2.03 (51.62)	0.35 (9)
FR2	1.22 (31)	4.72 (120)	M16-2.0x12	0.63 (16)	2.67 (67.88)	0.53 (13.50)

PR mount



Model	H	I	L	O	P	Q	R (min.)	R (max.)	S	ØT	U
PR0	1.65 (42)	3.27 (83)	0.47 (12)	2.99 (76)	0.59 (15)	1.18 (30)	3.39 (86)	3.71 (94)	4.57 (116)	0.35 (9)	1.08 (28)
PR2	2.17 (55)	4.21 (107)	0.71 (18)	3.82 (97)	0.79 (20)	1.57 (40)	4.33 (110)	4.73 (120)	5.91 (150)	0.55 (14)	0.75 (19)

Examples of Pulley Configurations



Worksheet

Fill out and submit for a quote or application analysis.

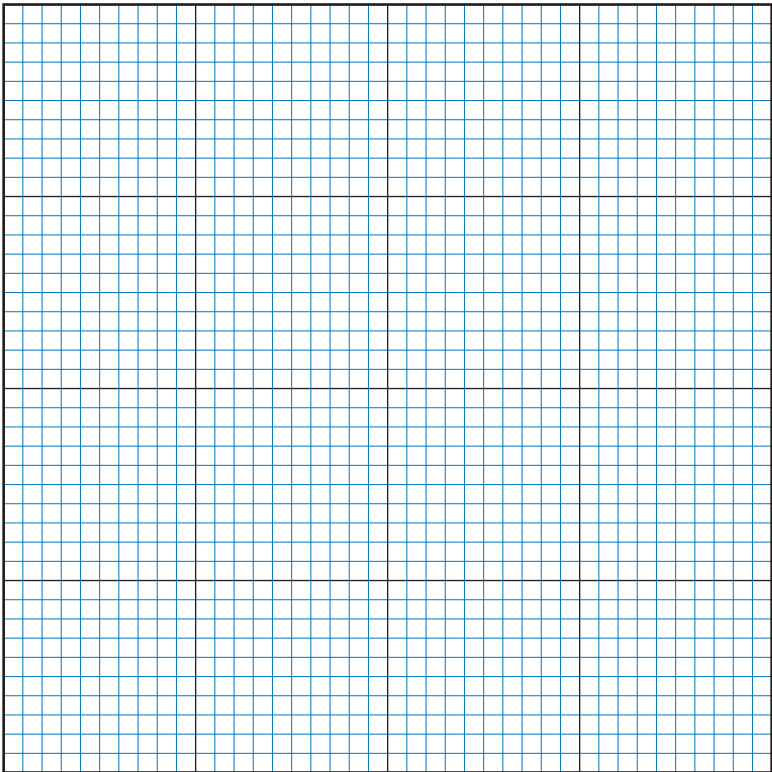
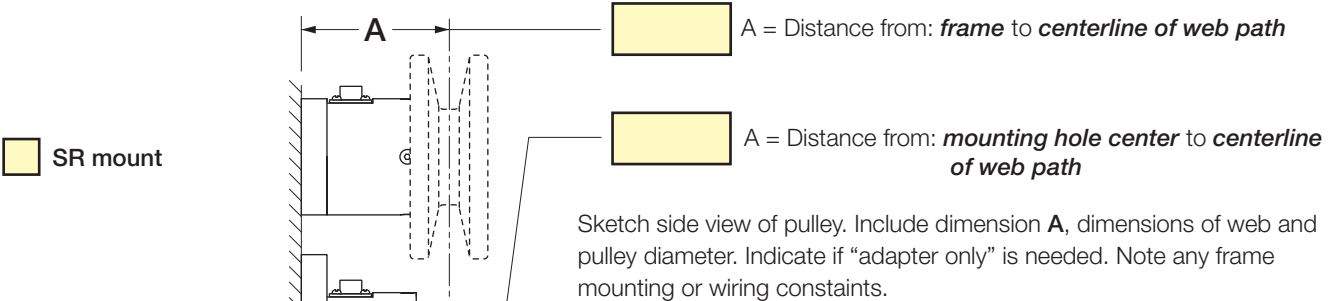
- 1 - Choose a mounting type SR, FR or PBR
- 2 - Provide dimension A
- 4 - Select connection required standard connector Male 4 pin M12 or pigtail with connector Male 4 pin M12
- 5 - Provide pulley characterists:
 - Dimensions (see sketch)
 - Already have pulley - need adppter only (see sketch)
 - Material and finish (if other than standard - 32 microinch aluminum) _____
- 6 - Provide web characterists:

Material _____

Dimensions _____

Tension _____

Line speed _____

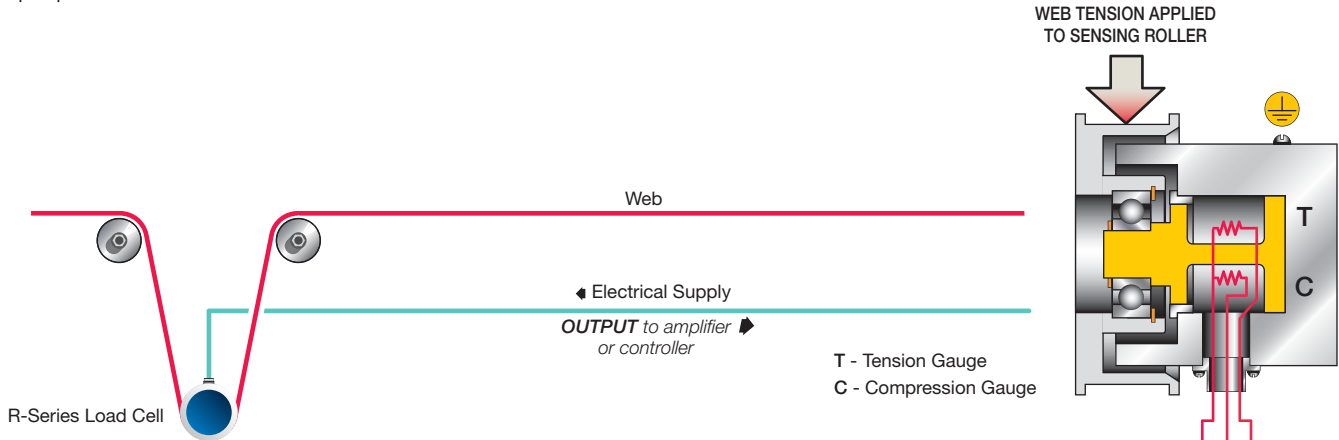


R-Series

Ribbon and Filament Load Cells

How They Work

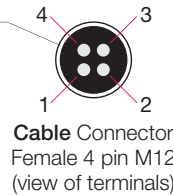
Montalvo R-Series use tension (T) and compression (C) strain gauges connected in a half bridge configuration. As the tension forces (Ft) bend the beam assembly slightly, the gauge resistances change, producing an output signal which is proportional to web tension.



Montalvo Load Cell Cable (option).
Connector wired as specified below:

Female 4 pin M12 connector

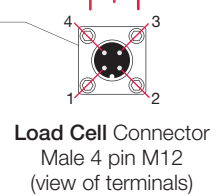
- Pin 1 BROWN or RED..... Excitation
- Pin 2 WHITE Signal
- Pin 3 No Connection
- Pin 4 BLACK..... Excitation



Connector can be either fixed to load cell (standard) or on a pigtail wire (option).

Male 4 pin M12 connector

- Pin 1 Excitation
- Pin 2 Signal
- Pin 3 No Connection
- Pin 4 Excitation



Specifications

Electrical

Excitation.....5 VDC
Output..... 250 mV, nominal @ full load
Gauge Resistance..... 80 - 130 Ω
Type semi-conductor
Non-Repeatability..... ±1/4% full span
Non-Linearity and Hysteresis (combined)..... ±1/2% full span

Connector

TypeMale 4 pin M12
Pin 1.....Excitation
Pin 2..... Signal
Pin 3..... No connection
Pin 4.....Excitation

Load Ratings - lb (N)

Size 0 10(50), 25(125), 50(250), 75(375), 150(750)
Size 2 75(375), 150(750), 250(1250), 500(2500), 1000*(5000)*

* For F and P mounts only.

Note: It is recommended that Montalvo be contacted to ensure proper sizing.

Overload tested @ 300% max. of rated
Overload Stops 110% of full load

Environmental

ClassificationIP54
Temperature °F (°C)
Operating range -4 to +150 (-20 to +70)
Coefficient (% per degree)..... 0.02 (0.01) typ.

Mechanical

Deflection in (mm)..... 0.008 to 0.015 (0.203 to 0.381)
Alignment 1° max.
Finish stainless steel

Related Montalvo Products

The **NEW** S4 Digital Tension Controller
The **NEW** A4 Digital Load Cell Amplifier
The **NEW** i4HD Tension Indicator
and... Cables

