

X Series

Narrow Web and Ribbon Width Cantilever Load Cells



Montalvo X Series Narrow Web and Ribbon Width Cantilever Load Cells

The X Series cantilever load cell from Montalvo is designed for a customized fit into narrow web and ribbon, wire or single strand applications. Custom roller options, multiple load ratings, two mounting styles and Montalvo's renown Extra Sensitive load cell technology make the X a perfect choice for the narrowest of webs.

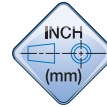
Features

- ▶ **Customer specified roller or pulley**
Diameter, profile, material and finish
- ▶ **Multiple load ratings**
- ▶ **Body only option**
To fit customer supplied rollers and pulleys
- ▶ **Two mounting styles**
Includes thru-frame single bolt or flange mount configuration
- ▶ **Two body sizes**
Offers a wide range of load ratings

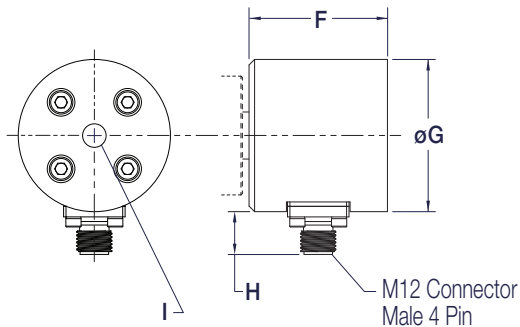


X-Series

Narrow Web and Ribbon Width Cantilever Load Cells



Standard Mount XBS, XNS and XRS

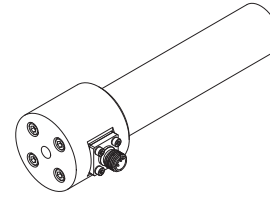


X Series
Body
Standard Mount

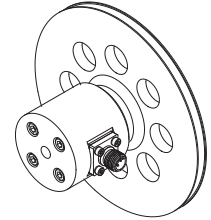


Mounting hole for customer supplied roller or wheel
(roller or pulley may require an adapter)

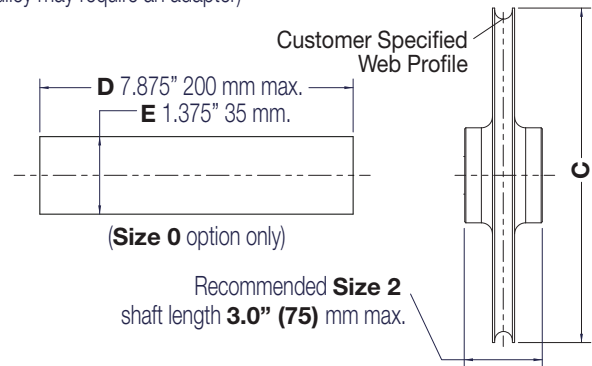
X Series
Narrow Web Roller
Standard Mount
(available in Size 0 only)



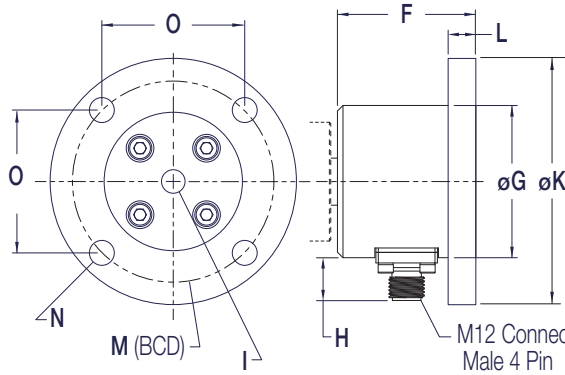
X Series
Ribbon Wheel
Standard Mount



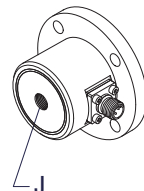
Size	F	G	H	I	J
0	1.97 (50)	2.17 (55)	0.61 (15.5)	M10x1.5x10deep	M12x1.75x10deep
2	2.89 (73.50)	2.85 (72.50)	0.67 (17)	M16x2.0x20deep	M16x2.0x16deep



Flange Mount XBF, XNF and XRF

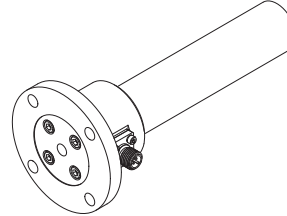


X Series
Body
Flange Mount

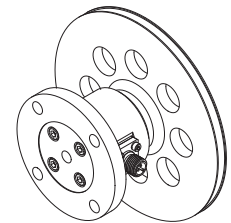


Mounting hole for customer supplied roller or wheel
(roller or pulley may require an adapter)

X Series
Narrow Web Roller
Flange Mount
(available in Size 0 only)



X Series
Ribbon Wheel
Flange Mount



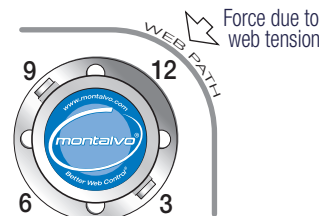
Size	F	G	H	I	J	K	L	M	N	O
0	1.97 (50)	2.17 (55)	0.61 (15.5)	M10x1.5x10deep	M12x1.75x10deep	3.50 (89)	0.39 (10)	2.874 (73)	0.35 (9)	2.03 (51.6)
2	2.89 (73.50)	2.85 (72.50)	0.67 (17)	M16x2.0x20deep	M16x2.0x16deep	2.85 (72.50)	0.63 (16)	3.78 (96)	0.531 (13.50)	2.673 (67.88)

Connector Position

Position is relative to LOAD ARROW, which is always 6 o'clock, as observed from end of load cell.

3 o'clock is **standard**
9 o'clock is **optional**

LOAD DIRECTION
Load Arrow
Must point in direction
of force due to web tension
(load arrow always points to 6 o'clock)



Request a quote

Use this form to specify a custom roller, pulley or adapter. Submit worksheet for a quote or application analysis.

BODY SIZE

 0 2

TYPE/MOUNT (see illustrations below)

 XRS XRF XNS* XNF* XBS XBF

*Available in Size 0 only

CONNECTOR POSITION

 3 o'clock (standard) 9 o'clock (optional)


Provide DIMENSIONS

A, B, C, D or E as necessary

Provide ROLLER/PULLEY SPECIFICATIONS

Dimensions (see sketch)

Material and finish (if other than standard - 32 micro inch aluminum) _____

 I have roller/pulley. Need adapter only (see sketch). Include dimension A or B for reference.

Provide WEB CHARACTERISTICS

Wrap angle _____

Material _____

Dimensions _____

Tension _____

Line speed _____

Sketch side view of roller. Include dimension **A** or **B**, dimensions of web and roller diameter. Indicate if "adapter only" is needed. Note any frame mounting or wiring constraints.

A = Distance from: **frame to center line of web path** of pulley

B = Distance from: **frame to center line of web path** of roller

C = ribbon wheel **diameter** Size 0 - 6.5" (165 mm) max.

D = narrow web roller **width** 7.875" (200mm) max.

Pulley profile to be determined based on customer web specifications. Include details in sketch.

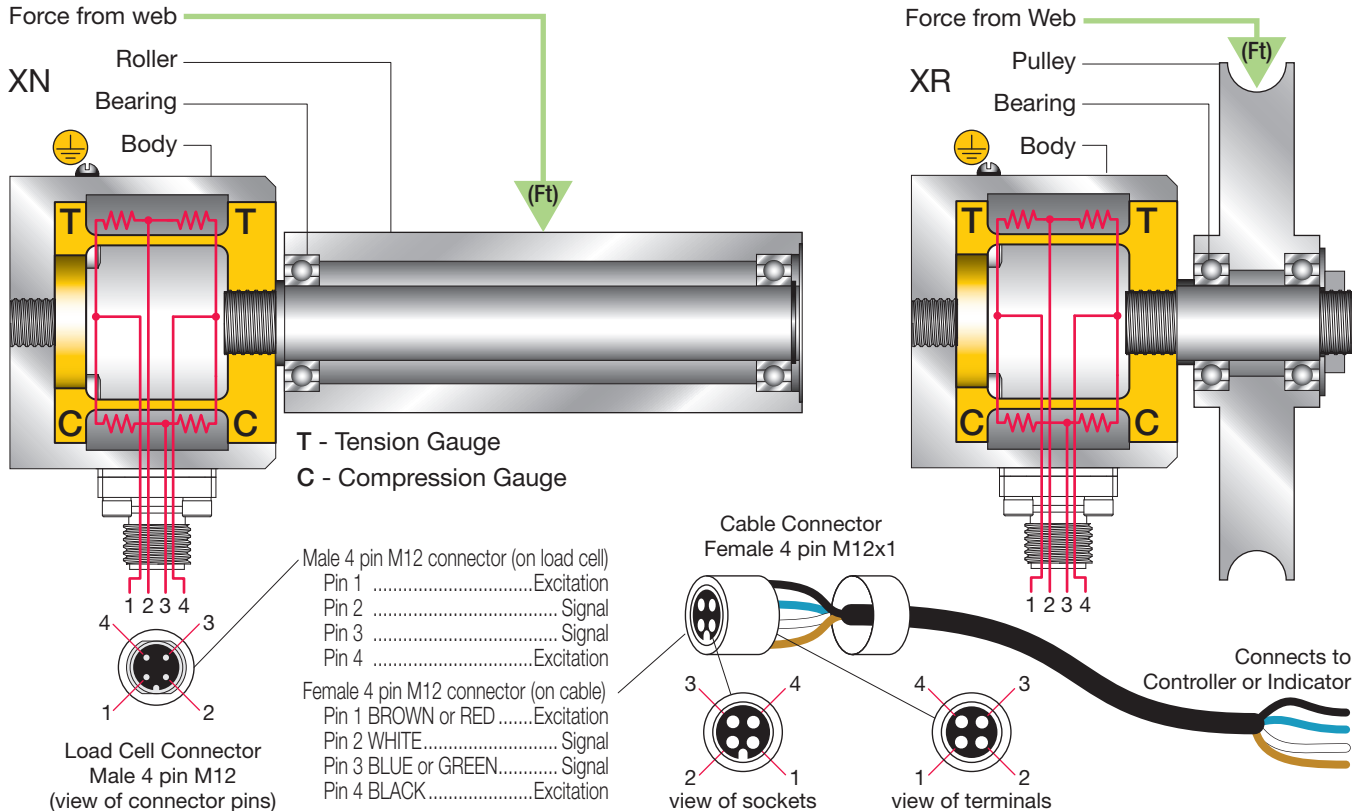
NOTE: Size 2 recommended max. shaft length: 3.0" (75mm)

Montalvo X Series

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How They Work

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



Specifications

Electrical

Excitation.....	5 VDC
Output - Nominal.....	50 mV/V
Gauge Resistance.....	80 - 130 Ω
Type.....	full bridge semi-conductor
Non-Repeatability.....	±0.25% full span
Non-Linearity and hysteresis (combined).....	±0.50% full span

Loading LB / N (*Standard Beams)

XR - Size 0.....	10/50, 25/125, 50/250, 75/375
XN - Size 0.....	25/125, 50/250, 75/375
XB - Size 0**.....	10/50, 25/125, 50/250, 75/375
XR - Size 2.....	50/250, 100/500, 150/750, 250/1250, 500/2500
XB - Size 2**.....	50/250, 100/500, 150/750, 250/1250, 500/2500
Overload.....	300% max. of rated

*Custom sizes available - contact Montalvo for more information.

**Beam depends on size of customer installed roller being used - consult Montalvo for proper sizing!

Connector

Position Standard.....	3 o'clock
Optional.....	9 o'clock
Type.....	Male 4 pin M12
Pin 1.....	Excitation
Pin 2.....	Signal
Pin 3.....	Signal
Pin 4.....	Excitation

Mechanical

Deflection.....	0.008 to 0.015 (0.203 to 0.381)
Alignment.....	1° max.

Environmental

Classification.....	IP54
Temperature Compensated.....	14 to 131°F (-10 to 55°C)
Operating.....	-4 to 185°F (-20 to 85°C)
Effect on Zero.....	0.015% / °C
Effect on Span.....	0.015% / °C

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Technical details subject to change without notice. X-US-12 © Montalvo