

MAGPOWR MODEL CL CANTILEVERED LOAD CELLS



The MAGPOWR CL are precise and ruggedly constructed load cells for measuring the tension on cantilevered rollers. The load cells accept one roller shaft from either side and can be mounted inside or outside of the machine frame. With the load cell mounted outside of the machine frame the process rolls can be mounted flush to the machine frame.

The CL models are available in imperial and metric units (bore dimensions, load rating) in 2 sizes and 5 load ratings up to 250 kg (2500N).

All CL load cells incorporate a dual beam construction design with full Wheatstone bridge arrangement to insure linear output under all conditions. They are designed with mechanical overload stops in both force directions to eliminate sensor damage and the need to recalibrate even after extreme overloads.

IP67 protection ensures reliable operation in application where wash-down are required. CL-series load cells are typically used on paper, film, foil, fabrics or any material in the label, tag, tape, printing or converting industry.



GENERAL SPECIFICATIONS

Gage Resistance

350Ω nominal

Excitation Voltage

10VDC maximum

Output Signal

21 mVDC maximum at full load

Operating Temperature

-30 to 80°C

Temperature Effect on Zero:

0.02% of rating per °C

Repeatability

0.2% of full scale maximum

Combined Non-linearity & Hysteresis

Size 1: 0.5% of full scale maximum

Size 2: 1.5% of full scale maximum

Deflection at Full Load

0.28mm maximum

Cable

LCC cable series or connector #12B220-1

Protection Class

IP67

KEY FEATURES

- Mounting inside or outside the machine frame
- Load ratings from 2 to 250 kg (20 to 2500N)
- Metric and imperial models available
- Ruggedly constructed for long life and dependability
- Overload stops in both measuring directions
- Full Wheatstone bridge design for measurement accuracy and lowest temperature drift

MODEL NUMBER KEY

CL	1	25	EC12	M	S(xx)
Series (Load Cell)	Size (1 or 2)	Load Rating [see unit type]	Connector: M12	Unit type: M / Blank	Special versions

M = Metric (dimensions in mm,
load rating in kg)

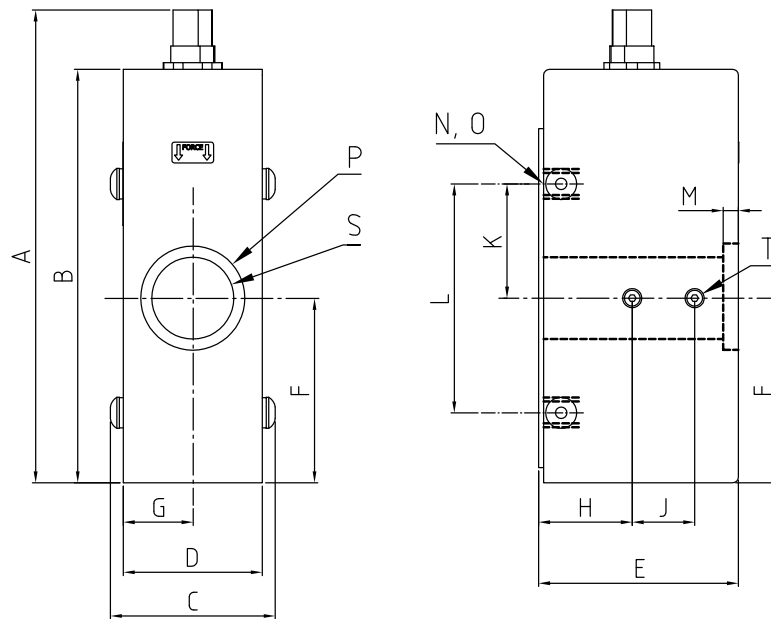
Blank = Imperial (dimensions in
inch, load rating in lb)

STANDARD MODELS

METRIC SERIES	
MODEL NUMBER	LOAD RATING
CL1-2-EC12M	2 kg
CL1-7-EC12M	7 kg
CL1-25-EC12M	25 kg
CL2-7-EC12M	7 kg
CL2-25-EC12M	25 kg
CL2-75-EC12M	75 kg
CL2-250-EC12M	250 kg

IMPERIAL SERIES	
MODEL NUMBER	LOAD RATING
CL1-5-EC12	5 lbs
CL1-15-EC12	15 lbs
CL1-50-EC12	50 lbs
CL2-15-EC12	15 lbs
CL2-50-EC12	50 lbs
CL2-150-EC12	150 lbs
CL2-500-EC12	500 lbs

DIMENSIONS



P Housing clearance

S Bore diameter for roller shaft

T 4x set screws for roller shaft

N 2x threaded hole for mounting with max. deepness O

Metric Series (Dimensions in mm)

MODEL	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	S*	T
CL1-2-EC12M	114	95.8	38	31.2	54.5	41.4	15.6	25.4	19.1	25.4	50.8	3.8	M6 - 1.0	9.5	22.2	16	M4 X 0.7
CL1-7-EC12M																	
CL1-25-EC12M																	
CL2-7-EC12M	144	126.2	50	42.4	61.0	56.4	21.2	28.6	19.1	34.9	69.9	3.8	M10 - 1.5	12.7	31.8	25	M5 X 0.8
CL2-25-EC12M																	
CL2-75-EC12M																	
CL2-250-EC12M																	

*Tolerance: H9

Imperial Series (Dimensions in inch)

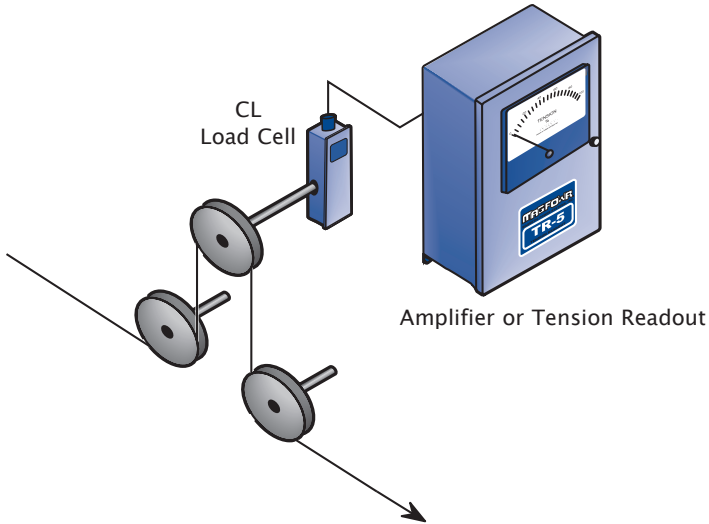
MODEL	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	S*	T
CL1-5-EC12	4.5	3.77	1.5	1.23	2.15	1.63	0.62	1.00	0.75	1.00	2.00	0.15	1/4 - 20	0.38	0.88	0.625	#8 - 32
CL1-15-EC12																	
CL1-50-EC12																	
CL2-15-EC12	5.7	4.97	2.0	1.67	2.40	2.22	0.84	1.13	0.75	1.38	2.75	0.15	3/8 - 16	0.50	1.25	1.000	#10 - 32
CL2-50-EC12																	
CL2-150-EC12																	
CL2-500-EC12																	

*Tolerance: +0.002/-0.000

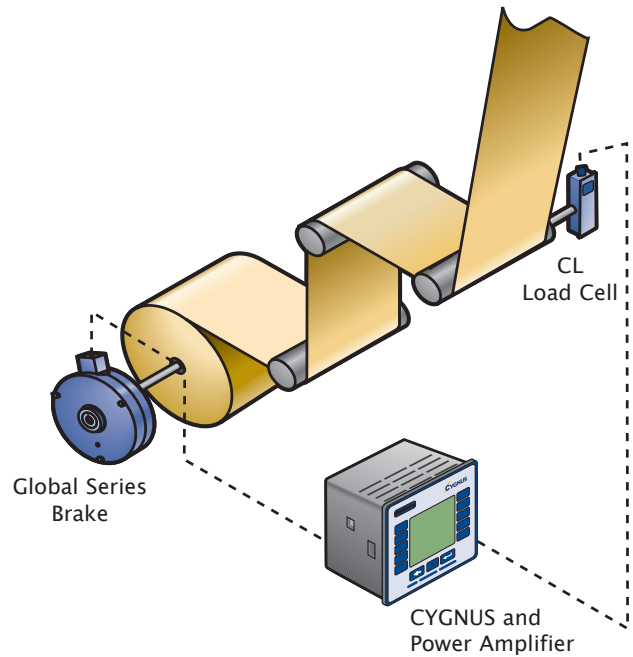
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EXAMPLE APPLICATIONS

Tension Readout

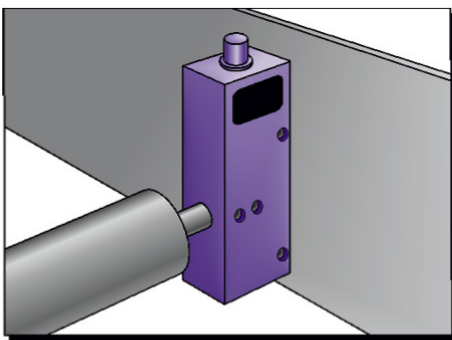


Closed loop tension control

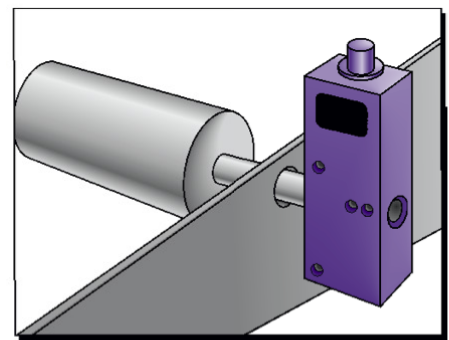


MOUNTING OPTIONS

Inside machine frame mount



Outside machine frame mount



MAXCESS

EUROPE, MIDDLE EAST
AND AFRICA
Tel +49.6195.7002.0
Fax +49.6195.3018
sales@maxcess.eu
www.maxcess.eu

NORTH, CENTRAL
AND SOUTH AMERICA
Tel +1.405.755.1600
Fax +1.405.755.8425
sales@maxcessintl.com
www.maxcessintl.com

CHINA
Tel +86.756.881.9398
Fax +86.756.881.9393
info@maxcessintl.com.cn
www.maxcessintl.com.cn

JAPAN
Tel +81.43.421.1622
Fax +81.43.421.2895
japan@maxcessintl.com
www.maxcess.jp

INDIA
Tel +91.22.27602633
Fax +91.22.27602634
india@maxcessintl.com
www.maxcess.in

