

# MAGPOWR TLCA THIN LOAD CELLS



The MAGPOWR TLCA load cells are extremely accurate devices used to measure web tension in any unwind, rewind or intermediate web processing application.

The TLCA line of load cells deliver precise web tension with low temperature drift due to a full Wheatstone bridge construction. The load cells allow measurement and 10 times overload protection in both force directions.

With a low profile design, space between the machine frames dedicated to the load cell is minimized. The load cells can also be mounted on the outside of the machine frames, eliminating any space required for the load cells.

The TLCA can be flange mounted to any vertical machine surface or on top of horizontal surfaces utilizing the optional pillow block bracket.



## GENERAL SPECIFICATIONS

### Gage Resistance

350Ω nominal

### Excitation Voltage

10VDC maximum

### Output Signal

1.5 mV/V at rated force,  
15 mVDC max.

### Operating Temperature

-20°C to 80°C

### Combined non-linearity and hysteresis

0.5% of full scale maximum

### Temperature effect on zero

0.02% of rating per °C

### Repeatability

0.2% of full scale maximum

### Material

Beam: Nickel plated steel

Covers: Nickel plated aluminum

### Overload Stops Engagement

105% to 150% of full load  
rating

### Overload Protection

1000% of full load rating

### Deflection at Full Load

0.17 mm

### Cable

MAGPOWR mating cable LCC  
series, or mating connector  
part #12B220-1

### Climate Class

3K3 (EN60721)

### Certifications

IP-54,

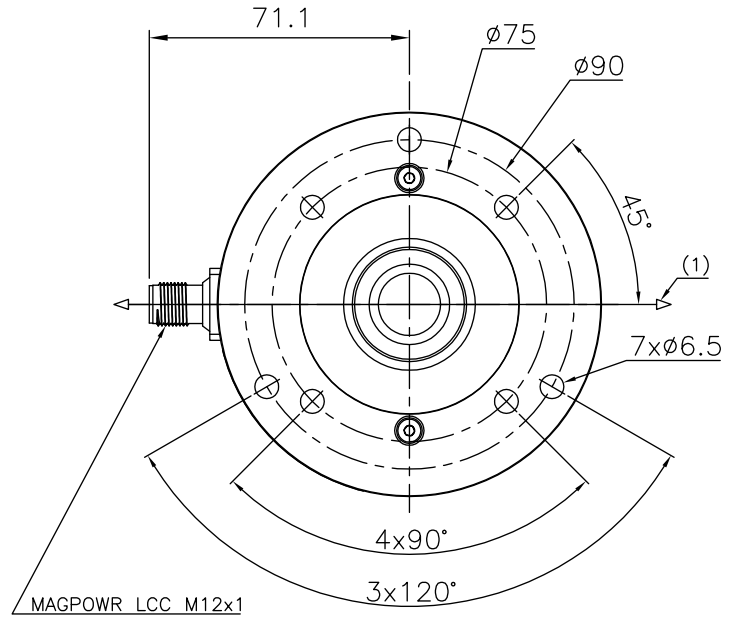
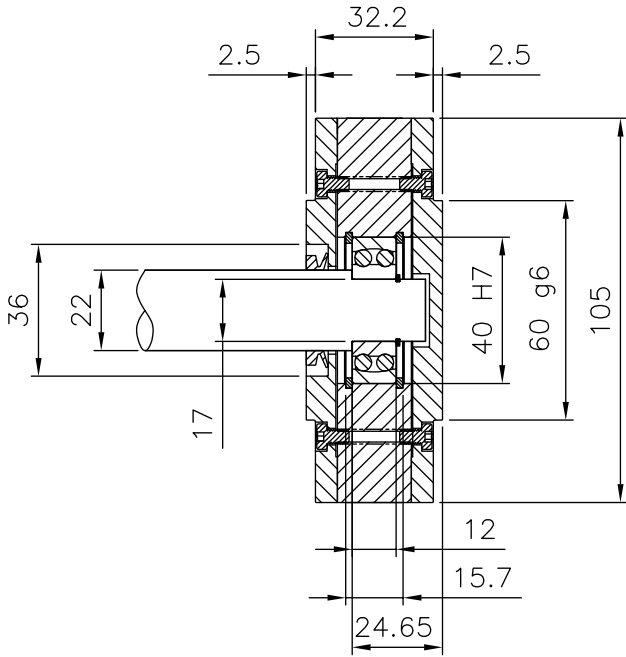
RoHS

## KEY FEATURES

- Ruggedly constructed from steel for long life and dependability
- 10x mechanical overload protection
- Six load ratings from 50 to 1000 N
- Full Wheatstone bridge design for measurement accuracy and low temperature drift
- Three or four hole bolt circle for mounting
- Flange mounting inside or outside of machine frame
- Additional mounting option with pillow block

# DIMENSIONS

Dimensions in mm

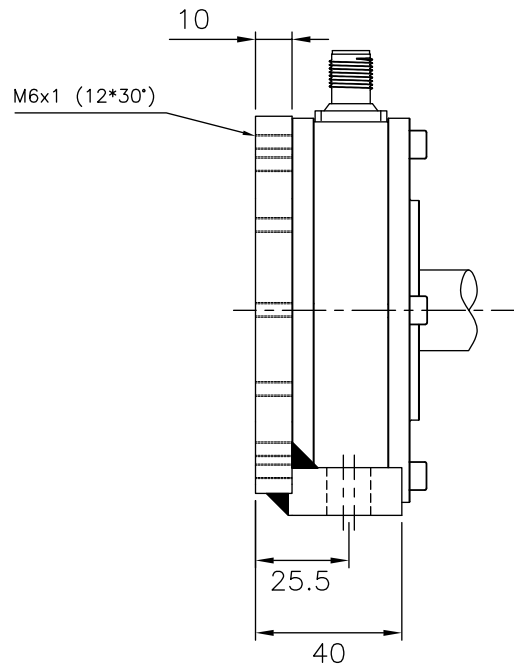
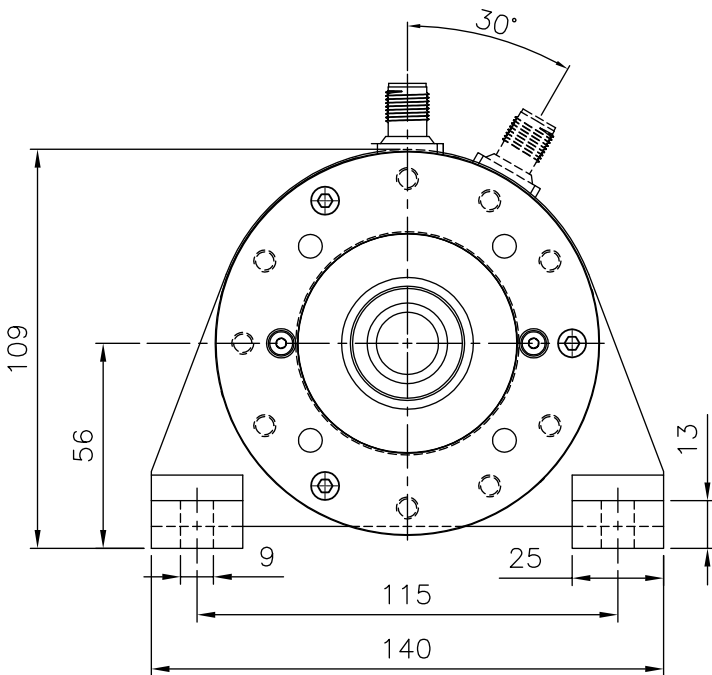


1 Force can be measured toward connector or away from connector

# DIMENSIONS PILLOW BLOCK BRACKETS

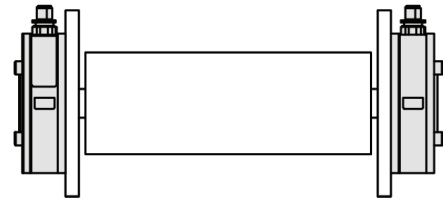
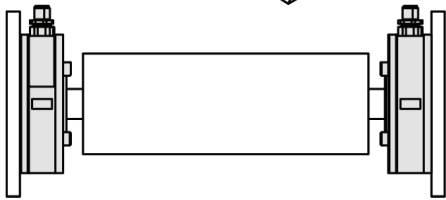
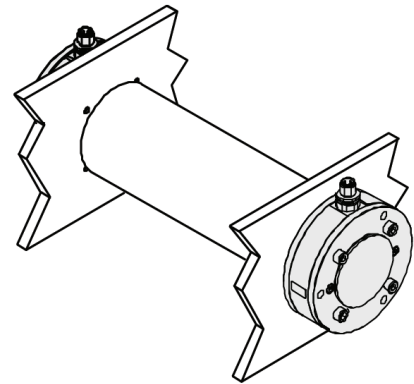
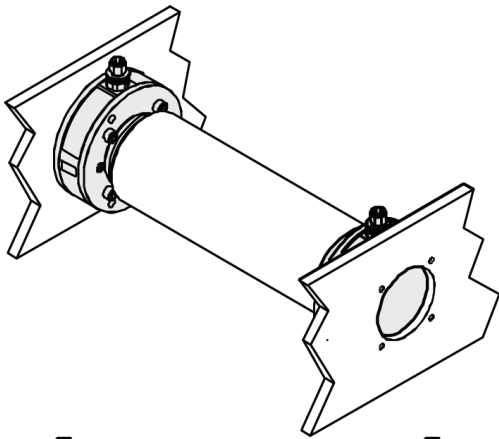
TLCA load cell rotates in 30° steps

Dimensions in mm



## MOUNTING OPTIONS

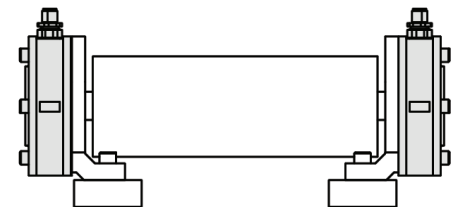
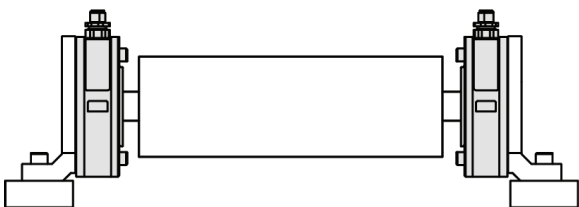
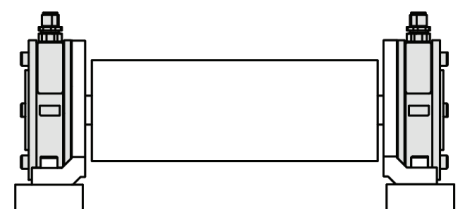
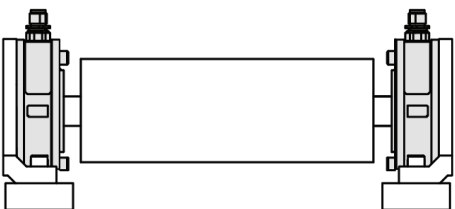
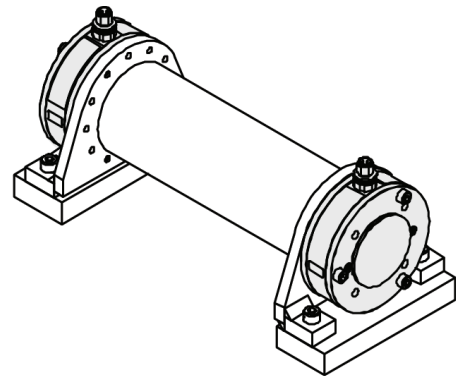
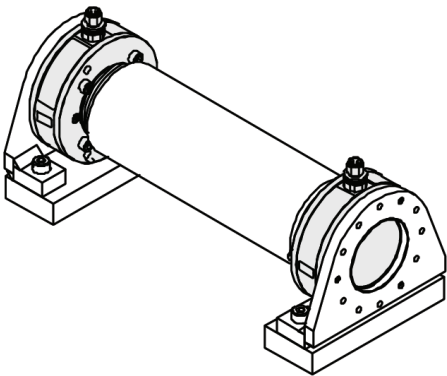
### Flange Mount on vertical machine frames



Inside frame

Outside frame

### Pillow Block on horizontal machine frames



Inside brackets

Outside brackets

# MAGPOWR TLCA THIN LOAD CELLS

## MODEL NUMBER KEY



## AVAILABLE MODELS

PART NUMBER	MODEL NUMBER	LOAD RATING [N]
M388754	TLCA-50-EC12M	50
M396651	TLCA-100-EC12M	100
M388483	TLCA-250-EC12M	250
M380391	TLCA-500-EC12M	500
M444315	TLCA-750-EC12M	750
M439300	TLCA-1000-EC12M	1000

## OPTIONAL ACCESSORIES

- Self aligning bearings with 17 mm bore (one per load cell, M284953)
- Pillow block bracket for size A Load Cells (one per load cell, M404448)



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