

## MODEL LCX - DRAW WIRE SOLUTIONS



### FEATURES

Fast and easy encoder mounting  
 Wire length options from 1 to 42.5 meters  
 Linearity  $\pm 0.05\%$  of full range (with encoder)  
 Optional high corrosion protection  
 Temperature range  $-20^{\circ}\text{C}$  to  $85^{\circ}\text{C}$   
 Optional low temperature range of  $-40^{\circ}\text{C}$

Available in wire lengths from one meter to 42.5 meters, the LCX draw wire is compatible with the following 58 mm shafted encoders with clamping flange: absolute encoder Model A58SE, which offers EtherCAT® and PROFINET® communication protocols; Model 758, a high-performance incremental encoder; and the Model 858S, a stainless steel incremental encoder. Choose the right encoder and wire length for your application.

### COMMON APPLICATIONS

Robotics, Extrusion Presses, Textile Machinery, Control Gate Positioning, Theater Stages, Elevators, Gantry, Boom Cranes, Fork Lift Booms

*The LCX Series of Draw Wire Solutions is manufactured for EPC by our German technology partner.*

### MODEL LCX ORDERING GUIDE

Blue type indicates price adder options. Not all configuration combinations may be available. Contact Customer Service for details.

LCX80		1M						
MODEL		DRAW WIRE LENGTH		DRAW WIRE EXIT <sup>2</sup>		DRAW WIRE CONNECTOR		OPERATING TEMPERATURE
LCX80	80 mm housing	<b>LCX80</b>		Standard		Standard Clip		-20° to 85° C (Std) -40° to 85° C <sup>1</sup>
LCX120	120 mm housing	1M	1 meter <sup>1</sup>	1	Sideways Top <sup>1</sup>	T	M4 Thread <sup>1,3</sup>	
LCX135	135 mm housing	2M	2 meter <sup>1</sup>	2	Sideways Bottom <sup>1</sup>	E	20 mm Eyelet <sup>1,3</sup>	
		3M	3 meter	3	Bottom <sup>1</sup>			
		<b>LCX120</b>						
		4M	4 meter <sup>1</sup>					
		5M	5 meter					
		<b>LCX135</b>						
		6M	6 meter <sup>1</sup>					
		7M	7 meter <sup>1</sup>					
		8M	8 meter					
		10M	10 meter <sup>1</sup>					
		12M	12 meter					
		15M	15 meter <sup>1</sup>					
		20M	20 meter					
		25M	25 meter <sup>1</sup>					
		30M	30 meter <sup>1</sup>					
		35M	35 meter <sup>1</sup>					
		40M	40 meter <sup>1</sup>					
		42M	42.5 meter <sup>1</sup>					

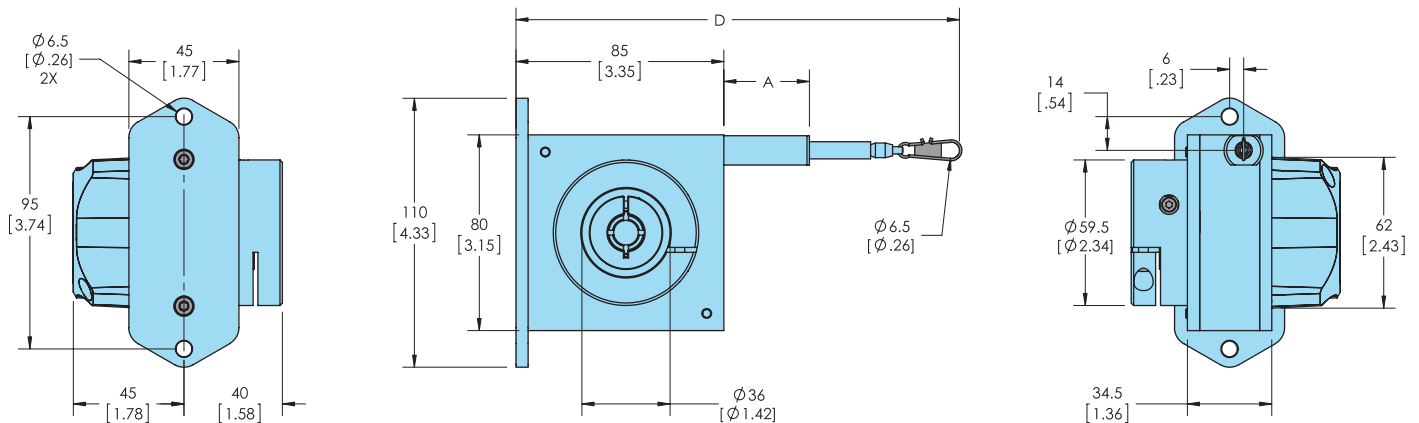
#### NOTES:

- Longer lead time. Contact Customer Service for information.
- For LCX135, draw wire exit orientation is determined by how draw wire unit is mounted.
- Corrosion protection option cannot be combined with M4 thread or 20mm eyelet Draw Wire Connector options.

## MODEL LCX80

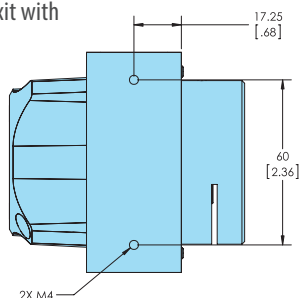
### MODEL LCX80 SPECIFICATIONS

Encoder Requirements.....Clamping flange diameter 36 mm; Shaft diameter 10 mm; Shaft length 20 mm  
 Measurement Range.....1 (1000 mm), 2 (2000 mm), 3 (3000 mm)  
 Linearity..... $\pm 0.05\%$  (with encoder output)  
 Sheave Circumference.....200 mm  
 Extraction Force  $F_{min}$  .....4.2 N to 5 N  
 Extraction Force  $F_{max}$ .....1 m wire = 5.4 N; 2 - 3 m = 6.4 N  
 Velocity  $V_{max}$ .....8 m/s  
 Acceleration  $a_{max}$ .....8 m/s<sup>2</sup>  
 Weight .....700 g to 900 g, depending on the measurement range  
 Housing.....Aluminum, anodized, spring case PA6  
 Wire Material.....Flexible stainless steel wire  
 Corrosion Protection .....Standard housing, V4A wire material, stainless steel bearings, and HARTCOAT® coating on wire drum  
 Operating Temp .....-20° to 85° C or low temp option of -40° C

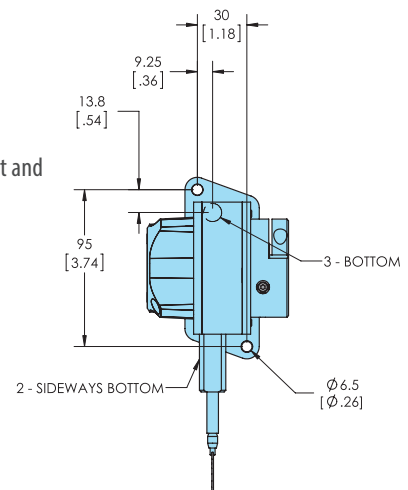


MEASUREMENT RANGE [MM]	A	D
1000 / 2000 [39.37/78.74]	21 [.83]	$\approx 166$ [6.54]
3000 [118.11]	35 [1.38]	$\approx 180$ [7.09]

Alternate mounting for standard wire exit and sideways top wire exit with mounting plate removed.



Mounting for bottom wire exit and sideways bottom exit.

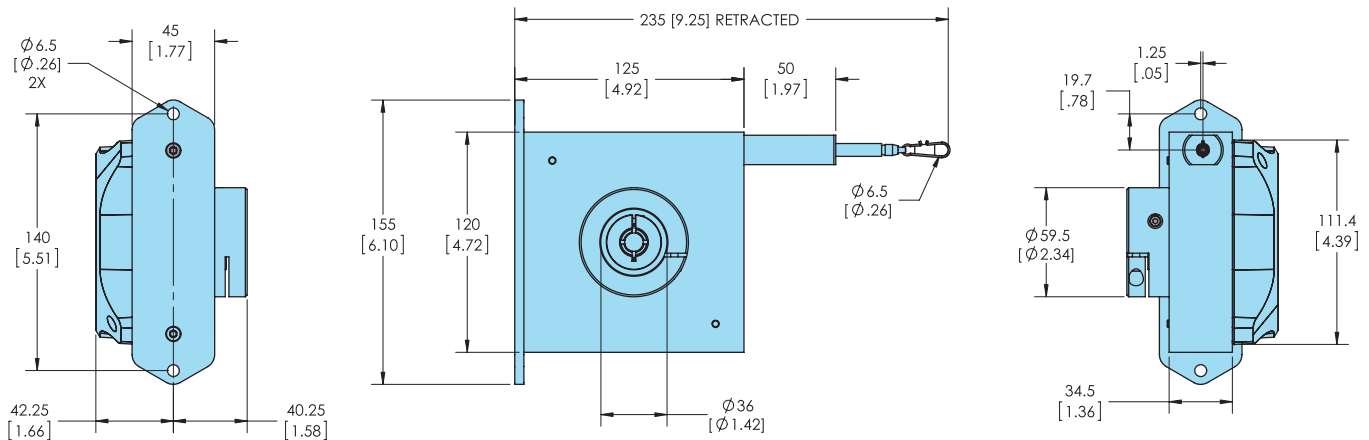


Note: All primary measurements and specifications in metric. Secondary standard measurements for reference only.

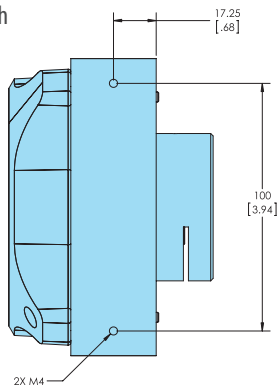
## MODEL LCX120

### MODEL LCX120 SPECIFICATIONS

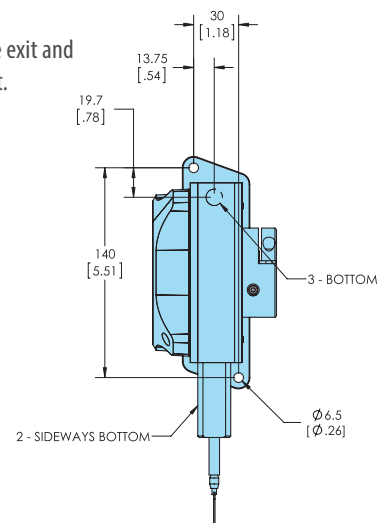
Encoder Requirements.....Clamping flange diameter 36 mm; Shaft diameter 10 mm; Shaft length 20 mm  
 Measurement Range.....4 (4000 mm), 5 (5000 mm)  
 Linearity..... $\pm 0.05\%$  (with encoder output)  
 Sheave Circumference.....317.68 mm  
 Extraction Force  $F_{min}$  .....8 N  
 Extraction Force  $F_{max}$ .....4 m = 11 N; 5 m = 11.6 N  
 Velocity  $V_{max}$ .....8 m/s  
 Acceleration  $a_{max}$ .....8 m/s<sup>2</sup>  
 Weight .....1300 g to 1600 g, depending on the measurement range  
 Housing.....Aluminum, anodized, spring case PA6  
 Wire Material.....Flexible stainless steel wire  
 Corrosion Protection .....Standard housing, V4A wire material, stainless steel bearings, and HARTCOAT® coating on wire drum  
 Operating Temp .....-20° to 85° C or low temp option of -40° to 85° C



Alternate mounting for standard wire exit and sideways top wire exit with mounting plate removed.



Mounting for bottom wire exit and sideways bottom wire exit.

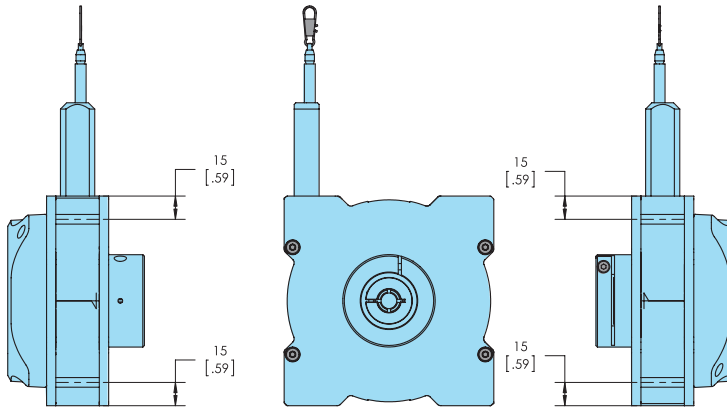


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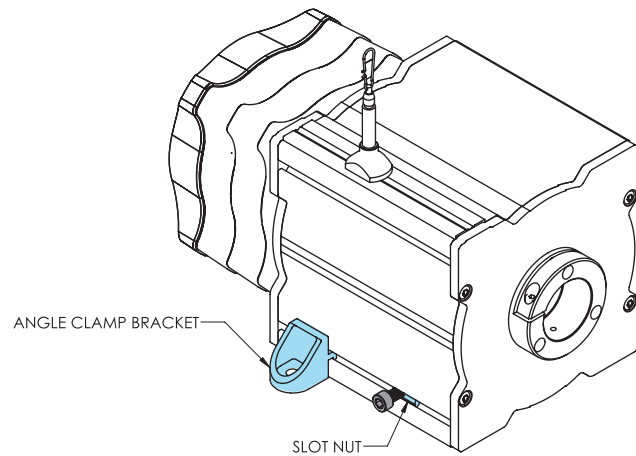
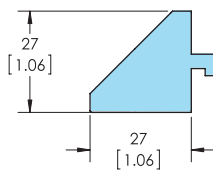
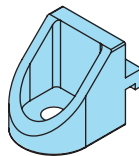
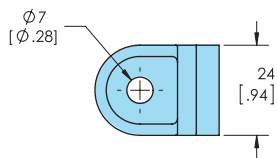
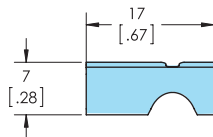
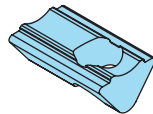
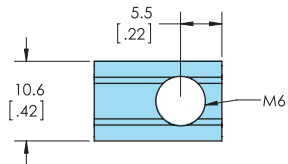
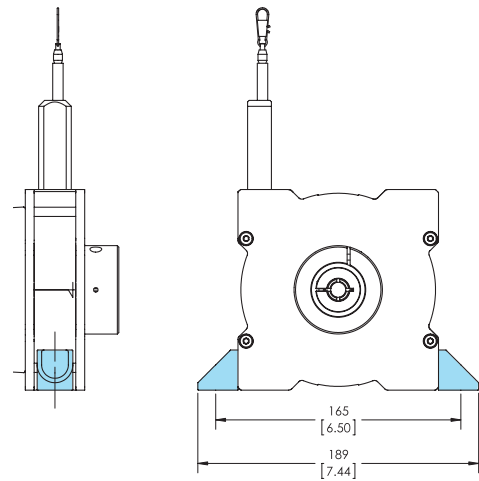


## MODEL LCX135 CONTINUED

### POSITIONS OF GROOVES FOR MOUNTING



### ANGLE CLAMP BRACKETS SPACING



Note: All primary measurements and specifications in metric. Secondary standard measurements for reference only.

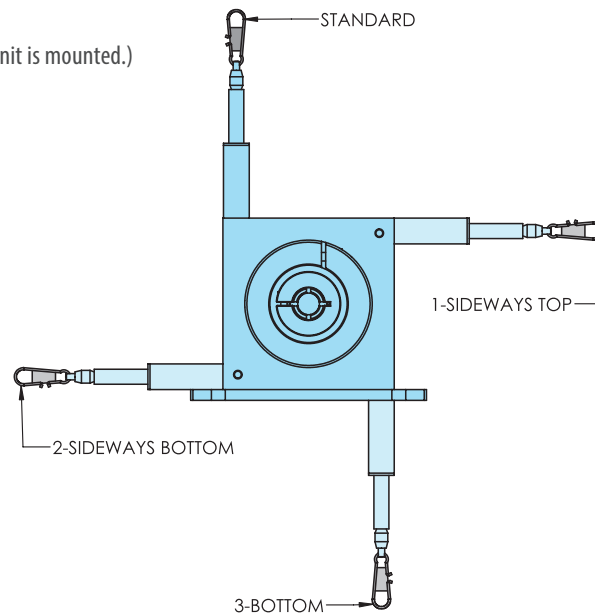
## WIRE EXIT LOCATIONS FOR LCX80 AND LCX120

### WIRE EXIT LOCATION FOR LCX80 AND LCX120

(For LCX135, draw wire exit orientation is determined by how draw wire unit is mounted.)

#### DRAW WIRE EXIT

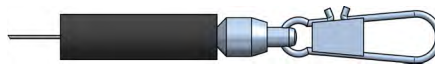
- Standard
- 1 Sideways top
- 2 Sideways bottom
- 3 Bottom



#### DRAW WIRE CONNECTORS

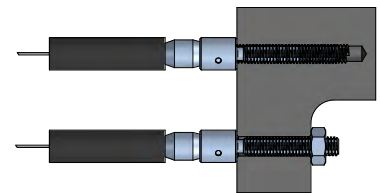
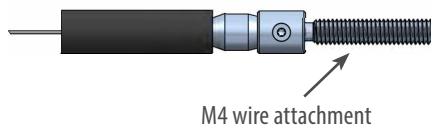
##### STANDARD

Wire attached with clip.



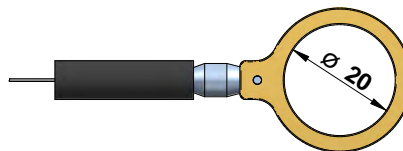
##### M4 THREAD

Pivoted wire attached by screw thread M4. Length: 22 mm. Ideal for attachment to through holes or threaded holes M4.



##### 20 MM EYELET

The end of the wire is equipped with an eyelet instead of a clip. Inside diameter: 20 mm



## MODEL LCX ACCESSORIES

### DEFLECTION PULLEY

The wire must be extracted from the draw wire unit in line with the exit axis. The maximum deviation off the exit axis is 3°. A deflection pulley allows a change in the direction of the wire. Several pulleys may be used. The wire clip must not be guided over the deflection pulley.

**Material foot:** Anodized aluminium

**Material wire wheel:** POM-C

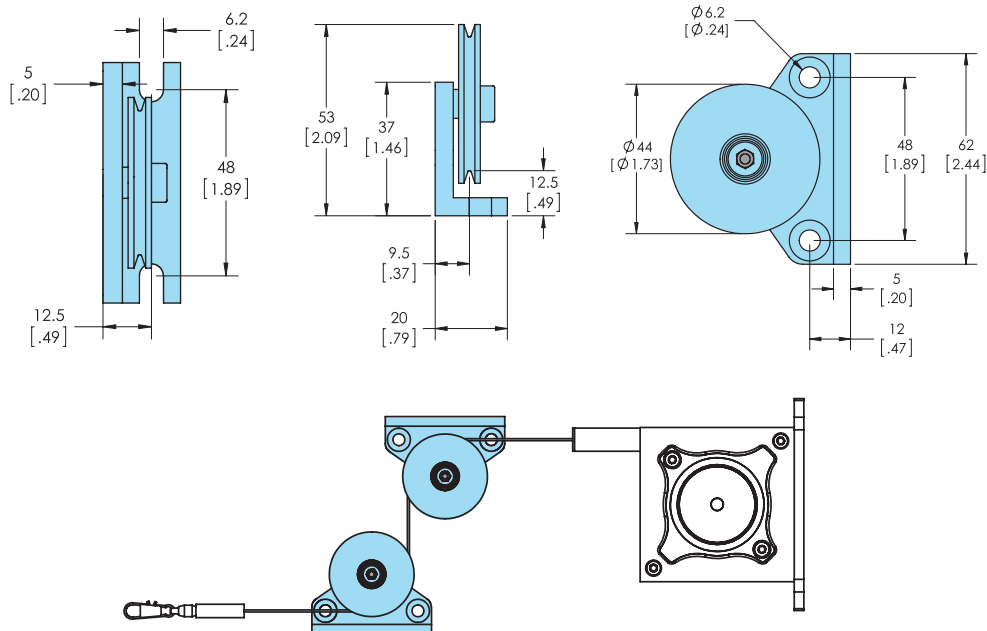
**Mounting:** By 2 hexagon socket or countersunk screws M6, vertical or horizontal mounting is possible.

**Ball bearings:** With special low temperature grease and RS-sealing.

**Temperature:** -40° to 80° C

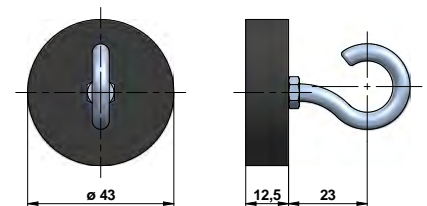


EPC stock #097001



### MAGNETIC CLAMP

Use the magnetic clamp to quickly attach the wire to metallic objects without any assembly time. A rubber coating provides gentle contact (e. g. on painted surfaces) and prevents slipping due to vibration. The magnet consists of a neodymium core for an increased magnetic force of 260 N. The hook makes it easy to attach the wire clip.



EPC stock #097002