

# 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 A58SB, an absolute bus encoder that offers CANopen® or SSI communication protocols; Model 758, a highperformance incremental encoder; and the Model 858S, a stainless steel incremental encoder. Choose the right encoder and wire length for your application.

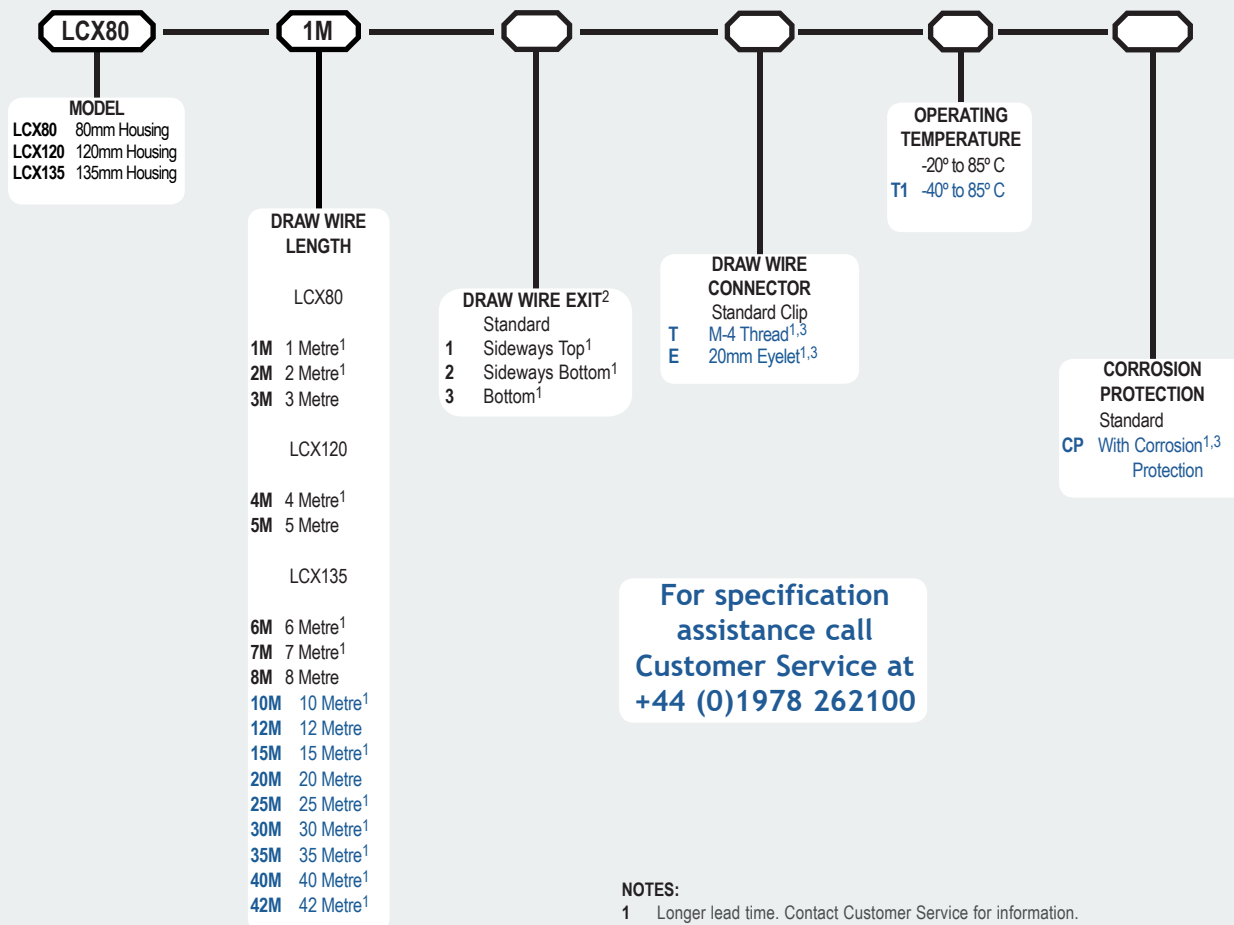
### Common Applications

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/BEPC 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.



For specification assistance call  
 Customer Service at  
 +44 (0)1978 262100

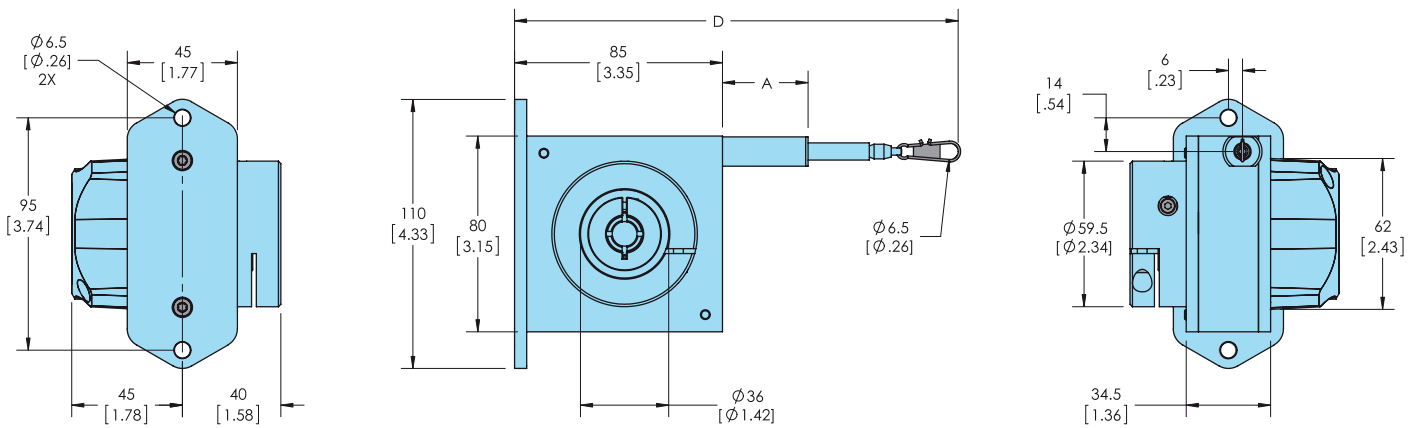
#### NOTES:

- <sup>1</sup> Longer lead time. Contact Customer Service for information.
- <sup>2</sup> For LCX135, draw wire exit orientation is determined by how draw wire unit is mounted.
- <sup>3</sup> Corrosion protection option cannot be combined with M4 thread or 20mm eyelet Draw Wire Connector options.

# Model LCX80

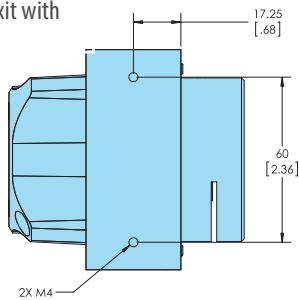
## MODEL LCX80 SPECIFICATIONS

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.....± 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>v</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

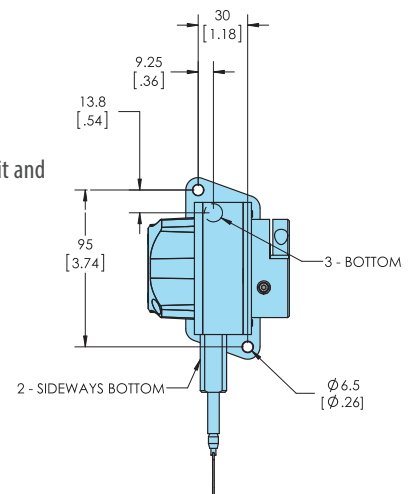


MEASUREMENT RANGE [MM]	A	D
1000 / 2000 [39.37/78.74]	21 [0.83]	≈ 166 [6.54]
3000 [118.11]	35 [1.38]	≈ 180 [7.09]

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



Mounting for bottom wire exit and sideways bottom exit.

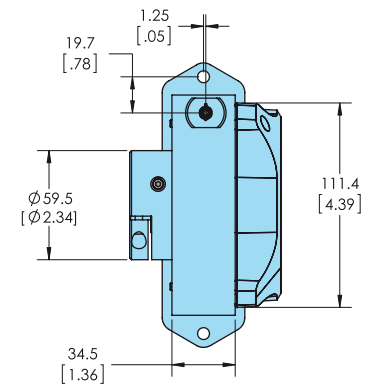
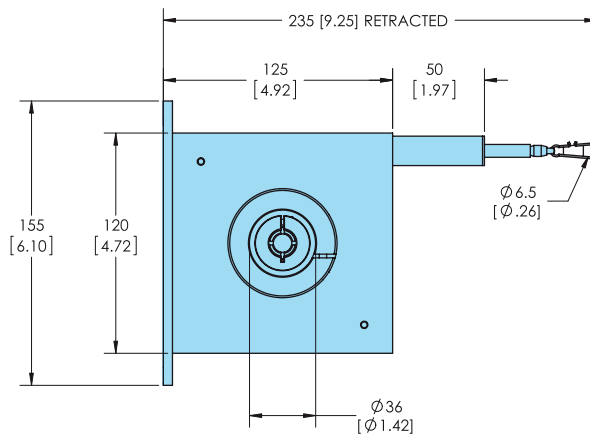
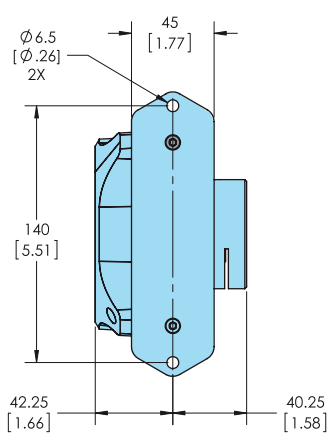


Note: All primary measurements and specifications in metric. Secondary standard measurements for reference only.

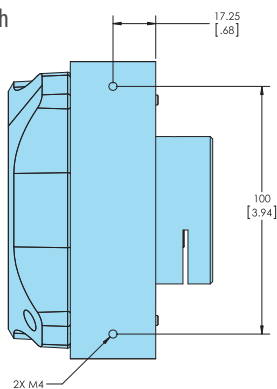
# Model LCX120

## MODEL LCX120 SPECIFICATIONS

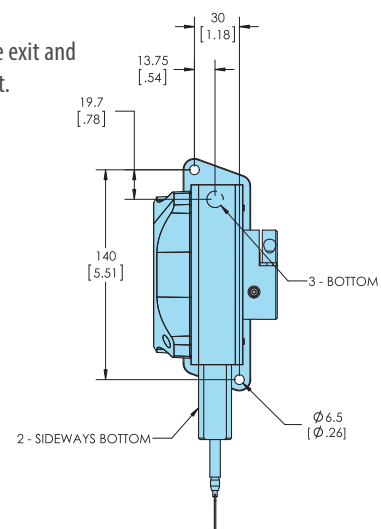
Encoder Requirements.....Clamping flange diameter 36 mm; Shaft diameter 10 mm; Shaft length 20 mm  
 Measurement Range.....4 (4000 mm), 5 (5000 mm)  
 Linearity..... $\pm 0.05\%$  (with encoder output)  
 Sheave Circumference.....317.68 mm  
 Extraction Force  $F_{min}$  .....8 N  
 Extraction Force  $F_{max}$  .....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.



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

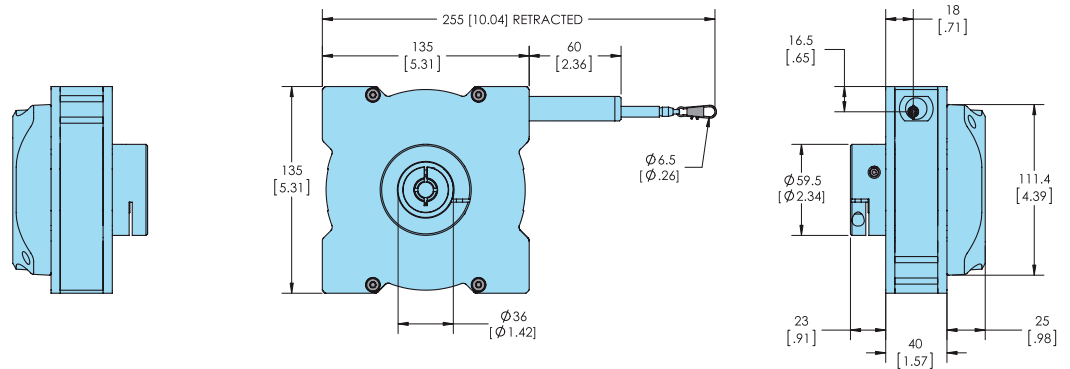
# Model LCX135

## MODEL LCX135 SPECIFICATIONS

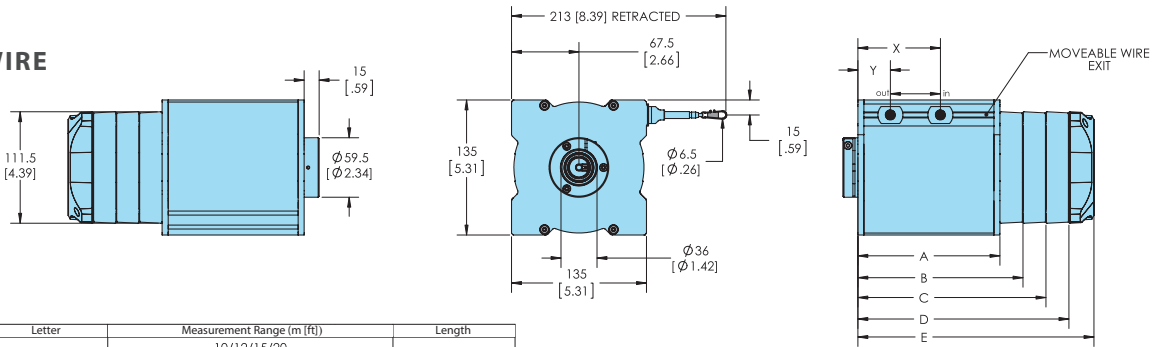
Encoder Requirements.....Clamping flange diameter 36 mm; Shaft diameter 10 mm; Shaft length 20 mm  
 Measurement Range.....6 m, 7 m, 8 m, 10 m, 12 m, 15 m, 20 m, 25 m, 30 m, 35 m, 40 m, 42.5 m  
 Linearity.....± 0.05% (with encoder output)  
 Sheave Circumference.....6 - 8 m, 357.14 mm, 10 m to 42.5 m, 333.33 mm  
 Extraction Force  $F_{min}$ .....4.2 N to 5 N  
 Extraction Force  $F_{max}$ .....6 m wire = 7.8 N; 7 or 8 m = 8.2 N; 10 - 12 m = 7.2 N; 15 m = 11.2 N; 20 m = 9.2 N;  
 25 m = 11.4 N; 30 m = 9.6 N; 35 m = 11.6 N; 40 - 42.5 m = 9 N  
 Velocity  $V_{max}$ .....6 - 8 m wire = 8m/s; 10 - 15 m = 6 m/s; 20 - 42.5 m = 5 m/s  
 Acceleration  $a_{max}$ .....6 - 8 m wire = 120 m/s<sup>2</sup>; 10 - 15 m = 80 m/s<sup>2</sup>; 20 - 42.5 m = 60 m/s<sup>2</sup>  
 Weight .....3200 g to 5000 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



SHOWN WITH 8 M WIRE



SHOWN WITH 10 M WIRE



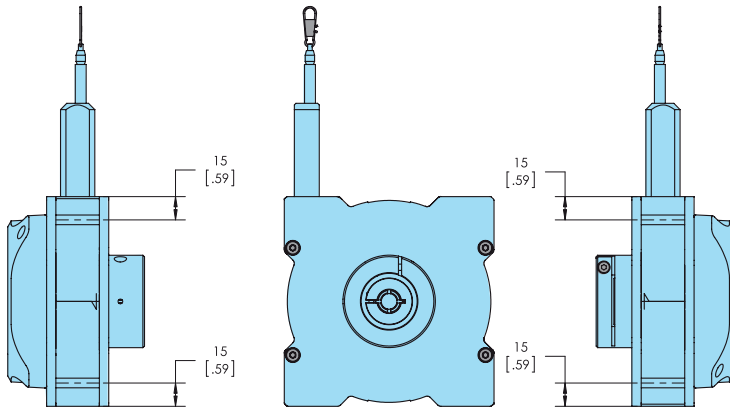
Letter	Measurement Range (m (ft))	Length
A	10/12/15/20 [32.8/39.4/49.2/65.6]	112 [4.41]
A	25/30/35/40/42.5 [82.0/98.4/114.8/131.2/139.4]	142 [5.59]
B	10/12 [32.8/39.4]	137 [5.39]
C	15/20 [49.2/65.6]	160 [6.30]
D	25/30 [82.0/98.4]	213 [8.39]
E	35/40/42.5 [114.8/131.2/139.4]	236 [9.29]

POSITION ROPE OUTLET AT...	10m (32.8ft)	12m (39.4ft)	15m (49.2ft)	20m (65.6ft)	25m (82.0ft)	30m (98.4ft)	35m (114.8ft)	40m (131.2ft)	42.5m (139.4ft)
...start of measurement range (X)	35.5 [1.39]	38.5 [1.51]	43 [1.70]	50.5 [1.98]	58 [2.28]	65.5 [2.58]	73 [2.87]	80.5 [3.17]	84 [3.30]
...start of measurement range (Y)	20.5 [0.80]	20.5 [0.80]	20.5 [0.80]	20.5 [0.80]	20.5 [0.80]	20.5 [0.80]	20.5 [0.80]	20.5 [0.80]	20.5 [0.80]

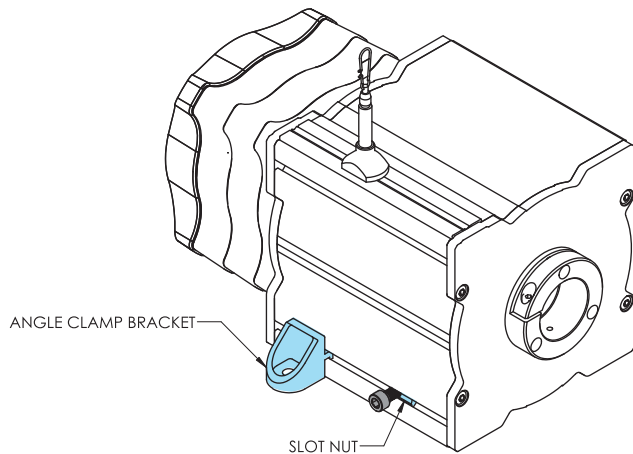
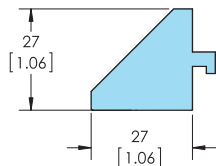
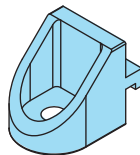
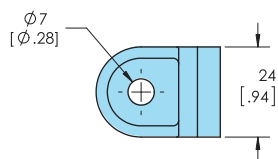
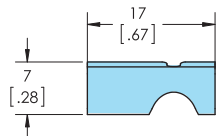
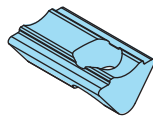
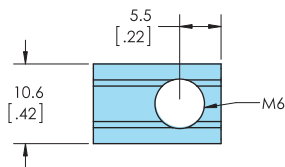
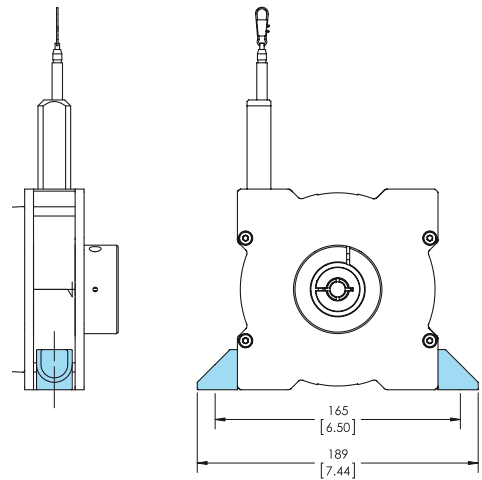
Note: All primary measurements and specifications in metric. Secondary standard measurements for reference only.

# 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.*

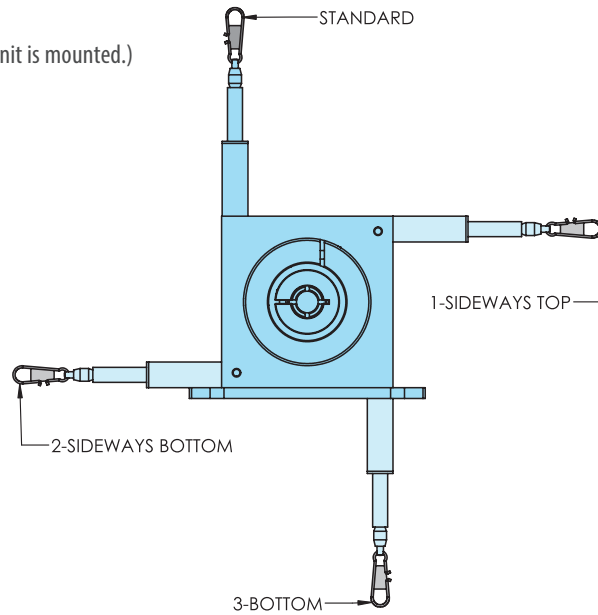
# Wire Exit Locations For LCX80 and LCX120

## 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

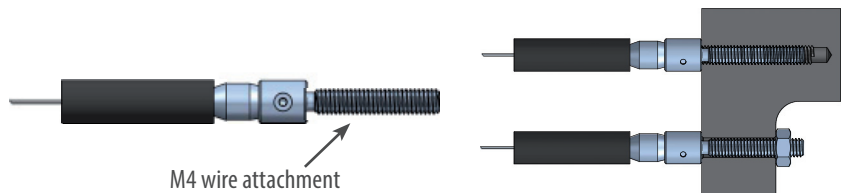
### STANDARD

Wire attached with clip.



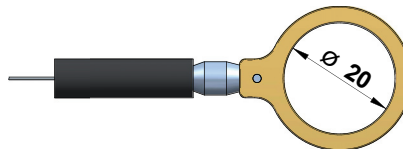
### M4 THREAD

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

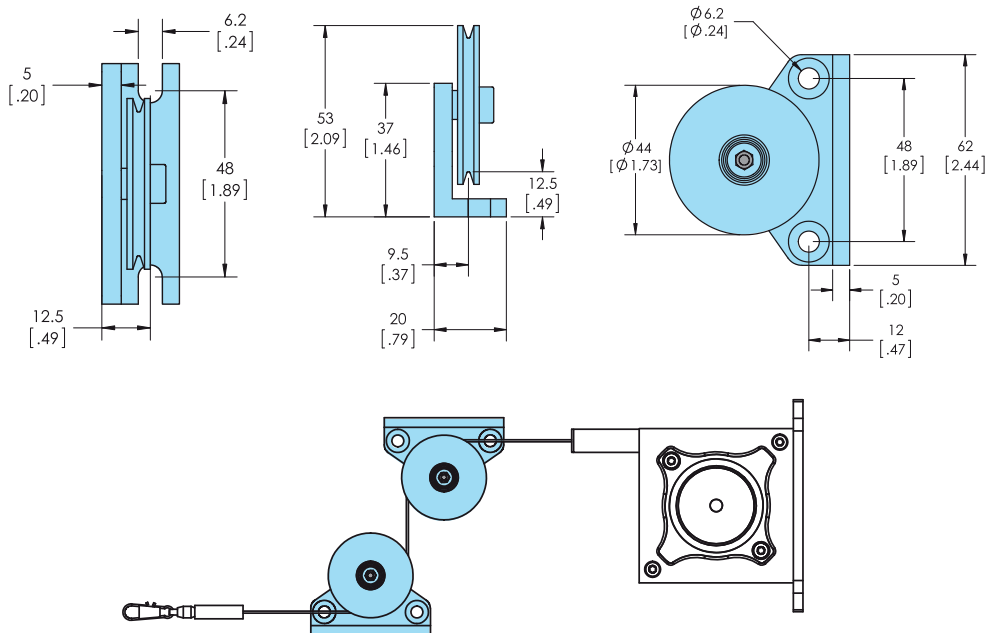
**Mounting:** By 2 hexagon socket or countersunk screws M6, vertical or horizontal mounting is possible.

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

**Temperature:** -40° to 80° C

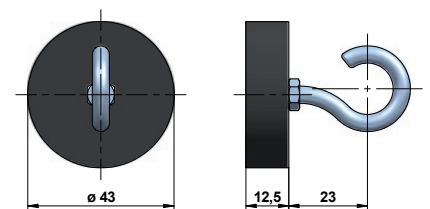


BEPC stock #097001



## MAGNETIC CLAMP

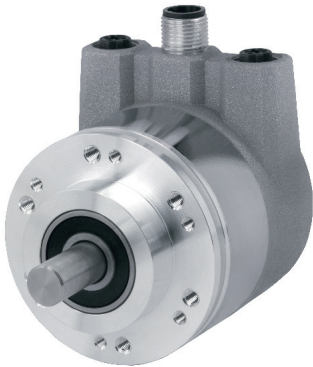
Use the magnetic clamp to quickly attach the wire to metallic objects without any assembly time. A rubber coating provides gentle contact (e. g. on painted surfaces) and prevents slipping due to vibration. The magnet consists of a neodymium core for an increased magnetic force of 260 N. The hook makes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



BEPC stock #097002

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

# Model LCX Encoder Options Table



**MODEL TYPE**

A58SE  
Ethernet Ready  
Absolute Encoder

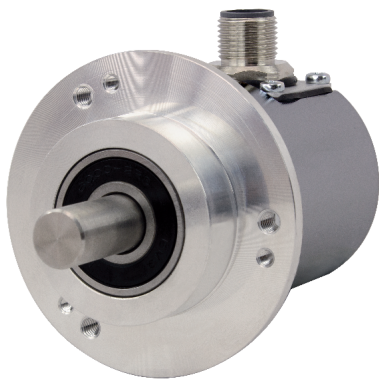


**CHOOSE OPTIONS**  
10mm Shaft

MH Clamping Flange

Choose either EtherCAT or ProfiNet  
Communication Protocol

Visit our website or contact sales  
for the relevant datasheet for more  
details.



**MODEL TYPE**

A58SB  
BUS  
Absolute Encoder



**CHOOSE OPTIONS**  
10mm Shaft

MH Clamping Flange

Choose either CANopen or SSI  
Communication Protocol

Visit our website or contact sales  
for the relevant datasheet for more  
details.



**MODEL TYPE**

758  
High Performance  
Incremental  
Shaft Encoder

**CHOOSE OPTIONS**  
10mm Shaft

Clamping Flange (20 Type)

Visit our website or contact sales  
for the relevant datasheet for more  
details.



**MODEL TYPE**

858S  
Stainless Steel  
Incremental  
Shaft Encoder

**CHOOSE OPTIONS**  
10mm Shaft

Clamping Flange (20 Type)

Visit our website or contact sales  
for the relevant datasheet for more  
details.