**FEATURES**

- Fast and easy encoder mounting
- Wire length options from 1 to 42.5 meters
- Linearity ± 0.05% of full range (with encoder)
- Optional high corrosion protection
- Temperature range -20° C to 85° C
- Optional low temperature range of -40° 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 EtherNet/IP™, EtherCAT®, and PROFINET® communication protocols; Model A58SB, an absolute bus encoder that offers CANopen® or SSI 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, Gantries, Boom Cranes, Fork Lift Booms

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

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### MODEL LCX ORDERING GUIDE

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

<table>
<thead>
<tr>
<th>MODEL</th>
<th>LCX80 80 mm housing</th>
<th>LCX120 120 mm housing</th>
<th>LCX135 135 mm housing</th>
</tr>
</thead>
<tbody>
<tr>
<td>DRAW WIRE LENGTH</td>
<td>LCX80</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1M</td>
<td>1 meter³</td>
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<tr>
<td>2M</td>
<td>2 meter³</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3M</td>
<td>3 meter³</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LCX120</td>
<td>4 meter³</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5M</td>
<td>5 meter³</td>
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</tr>
<tr>
<td>LCX135</td>
<td>6 meter³</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7M</td>
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</tr>
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<td></td>
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</tr>
<tr>
<td>12M</td>
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<tr>
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<td>30M</td>
<td>30 meter³</td>
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<tr>
<td>35M</td>
<td>35 meter³</td>
<td></td>
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<tr>
<td>40M</td>
<td>40 meter³</td>
<td></td>
<td></td>
</tr>
<tr>
<td>42M</td>
<td>42.5 meter³</td>
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</table>

<table>
<thead>
<tr>
<th>DRAW WIRE EXIT</th>
<th>Standard</th>
<th>1 Sideways Top¹</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2 Sideways Bottom¹</td>
<td>3 Bottom¹</td>
</tr>
</tbody>
</table>

| DRAW WIRE CONNECTOR | Standard Clip | M4 Thread¹³ | 20 mm Eyelet¹³ |

| OPERATING TEMPERATURE | -20° to 85° C (Std) | T1 -40° to 85° C¹ |

| CORROSION PROTECTION | No Protection (Std) | CP With Corrosion Protection¹³ |

**NOTES:**

2. For LCX135, draw wire exit orientation is determined by how draw wire unit is mounted.
3. Corrosion protection option cannot be combined with M4 thread or 20mm eyelet Draw Wire Connector options.
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_{max} = 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/s²
- 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]

<table>
<thead>
<tr>
<th>A</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>3000 [118.11]</td>
<td>35 [1.38] = 180 [7.09]</td>
</tr>
</tbody>
</table>

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 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 ± 0.05% (with encoder output)
Sheave Circumference 317.68 mm
Extraction Force $F_{\text{max}}$ 8 N
Extraction Force $F_{\text{min}}$ 4 m = 11 N; 5 m = 11.6 N
Velocity $V_{\text{max}}$ 8 m/s
Acceleration $a_{\text{max}}$ 8 m/s$^2$
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, 35.714 mm, 10 m to 42.5 m, 333.33 mm

Extraction Force
- $F_{\text{min}}$: 4.2 N to 5 N
- $F_{\text{max}}$: 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
- $V_{\text{max}}$: 6 - 8 m wire = 8 m/s; 10 - 15 m = 6 m/s; 20 - 42.5 m = 5 m/s

Acceleration
- $a_{\text{max}}$: 6 - 8 m wire = 120 m/s$^2$; 10 - 15 m = 80 m/s$^2$; 20 - 42.5 m = 60 m/s$^2$

Weight: 1200 g to 5000 g, depending on the measurement range

Housing: Aluminium, anodized, spring case P66

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

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**Shown with 8 m wire**

**Shown with 10 m wire**

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<table>
<thead>
<tr>
<th>Letter</th>
<th>Measurement Range (m)</th>
<th>Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>10/12/14/16/19</td>
<td>112 (4.41)</td>
</tr>
<tr>
<td>A</td>
<td>20/23/26/30/33</td>
<td>142 (5.59)</td>
</tr>
<tr>
<td>B</td>
<td>10/17</td>
<td>137 (5.29)</td>
</tr>
<tr>
<td>C</td>
<td>15/20</td>
<td>160 (6.30)</td>
</tr>
<tr>
<td>D</td>
<td>25/28</td>
<td>213 (8.39)</td>
</tr>
<tr>
<td>E</td>
<td>35/40/42/45/47</td>
<td>236 (9.29)</td>
</tr>
</tbody>
</table>

Position rope outlet at...
- 10m: 10.81
- 12m: 12.94
- 15m: 15.64
- 20m: 20.09
- 25m: 25.09
- 30m: 30.09
- 35m: 35.09
- 40m: 40.09
- 42.5m: 42.50

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

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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.

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EPC stock #097001

EPC stock #097002