MODEL LCX - DRAW WIRE SOLUTIONS

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.

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
LCX80 80 mm housing
LCX120 120 mm housing
LCX135 135 mm housing

DRAW WIRE LENGTH

LCX80
1M 1 meter[1]
2M 2 meter[1]
3M 3 meter

LCX120
4M 4 meter[1]
5M 5 meter

LCX135
6M 6 meter[1]
7M 7 meter[1]
8M 8 meter
10M 10 meter[1]
12M 12 meter
15M 15 meter[1]
20M 20 meter
25M 25 meter[1]
30M 30 meter[1]
35M 35 meter[1]
40M 40 meter[1]
42M 42.5 meter[1]

DRAW WIRE EXIT[2]
Standard
1 Sideways Top[1]
2 Sideways Bottom[1]
3 Bottom[1]

DRAW WIRE CONNECTOR
Standard Clip
T M4 Thread[1,3]
E 20 mm Eyelet[1,3]

OPERATING TEMPERATURE
-20° to 85° C (Std)
T1 -40° to 85° C[1]

CORROSION PROTECTION
No Protection (Std)
CP With Corrosion Protection[1,3]

NOTES:
1 Longer lead time. Contact Customer Service for information.
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.

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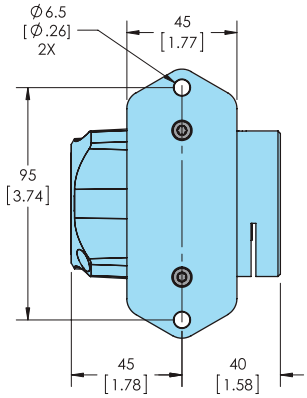
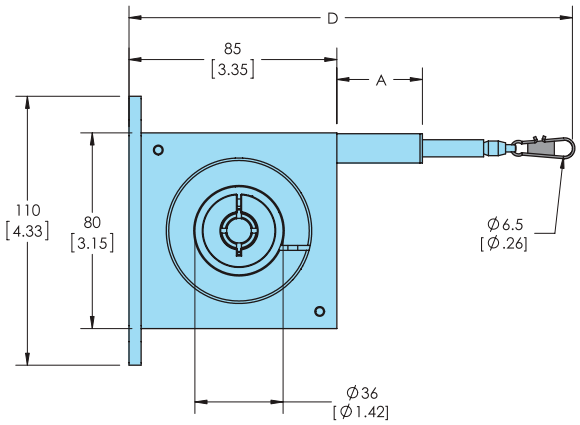
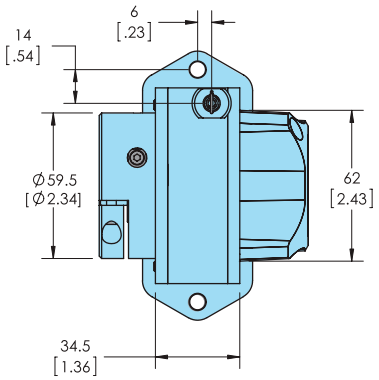
MODEL LCX80

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^V
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

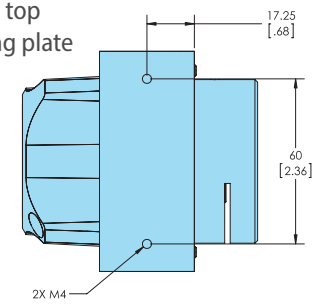




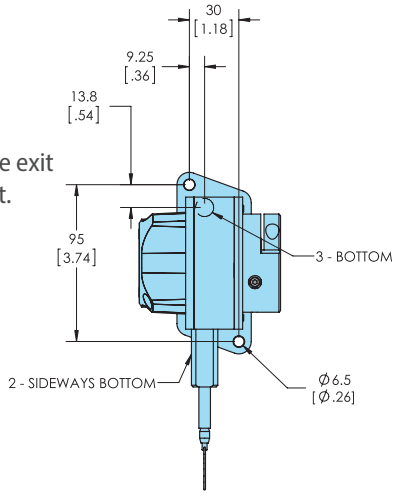


MEASUREMENT RANGE [MM]	A	D
1000 / 2000 [39.37/78.74]	21 [.83]	≈ 166 [6.54]
3000 [118.11]	35 [1.38]	≈ 180 [7.09]

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.

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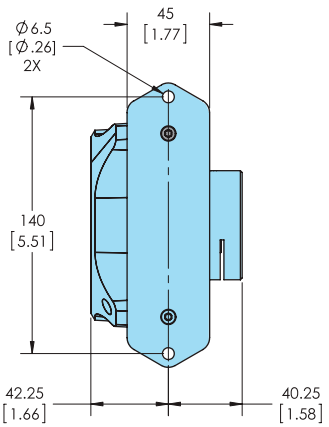
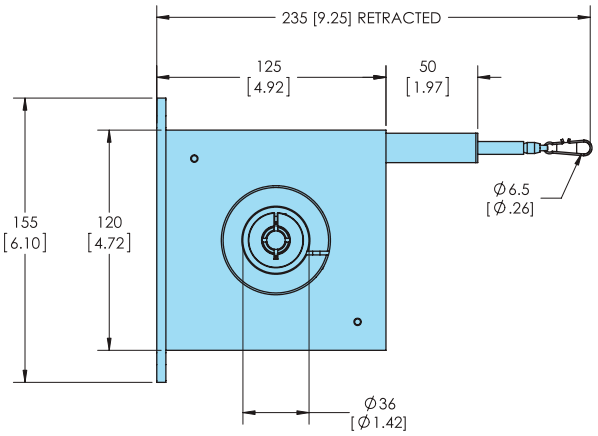
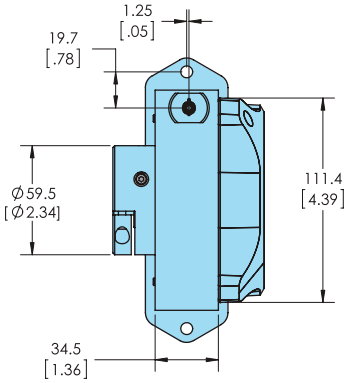
MODEL LCX120

MODEL LCX120 SPECIFICATIONS

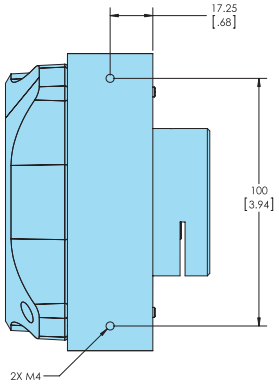
Encoder Requirements	Clamping flange diameter 36 mm; Shaft diameter 10 mm; Shaft length 20 mm
Measurement Range	4 (4000 mm), 5 (5000 mm)
Linearity	± 0.05% (with encoder output)
Sheave Circumference	317.68 mm
Extraction Force F_{min}	8 N
Extraction Force F_{max}	4 m = 11 N; 5 m = 11.6 N
Velocity V_{max}	8 m/s
Acceleration a_{max}	8 m/s²
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



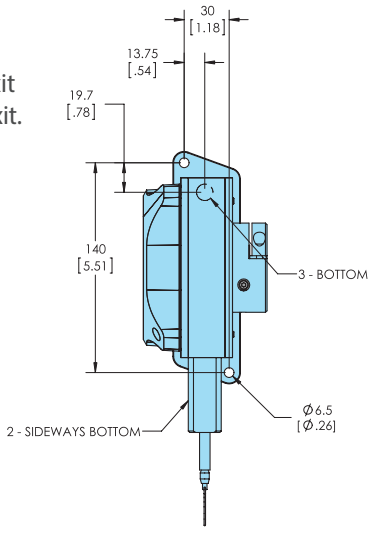




Alternate mounting for standard wire exit and sideways top wire exit with mounting plate removed.



Mounting for bottom wire exit and sideways bottom wire exit.



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

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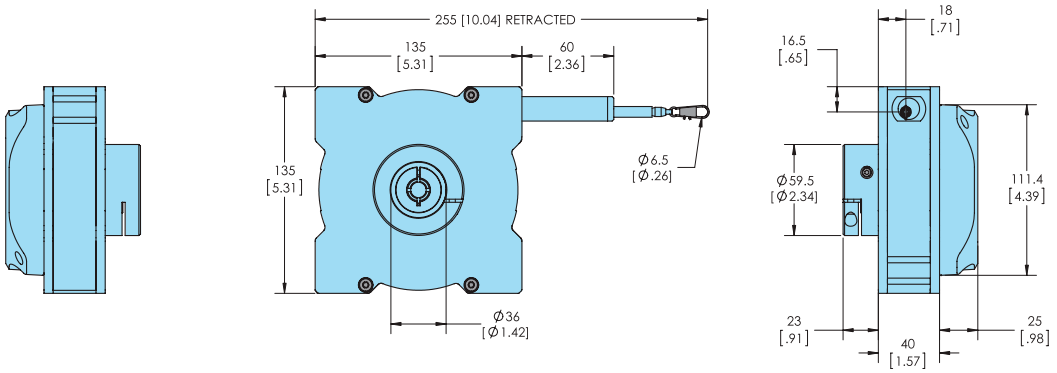
MODEL LCX135

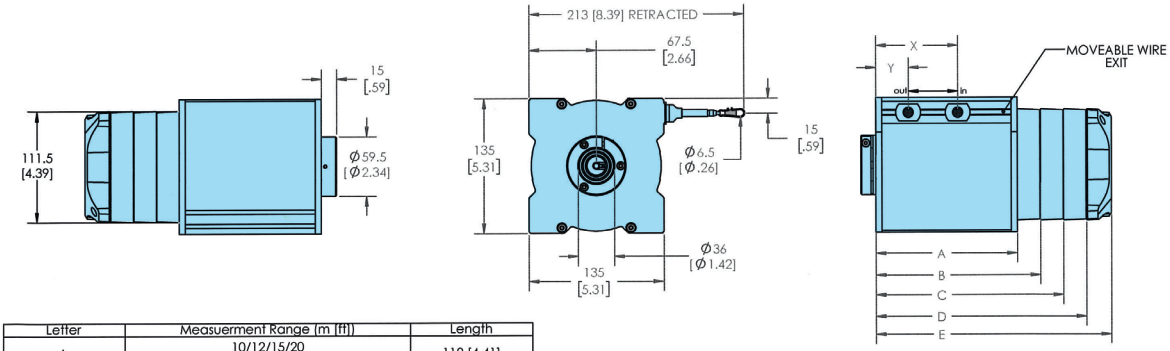
MODEL LCX135 SPECIFICATIONS

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^2; 10 - 15 m = 80 m/s^2; 20 - 42.5 m = 60 m/s^2
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	Measuerment 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 [1.40]	38.5 [1.52]	43 [1.69]	50.5 [1.99]	58 [2.28]	65.5 [2.58]	73 [2.87]	80.5 [3.17]	84 [3.31]
...end of measurement range (Y)	20.5	20.5	20.5	20.5	20.5	20.5	20.5	20.5	20.5

(Note: Due to variation in component tolerances and sensor mounting, these measurements have a tolerance of ± 2mm.)

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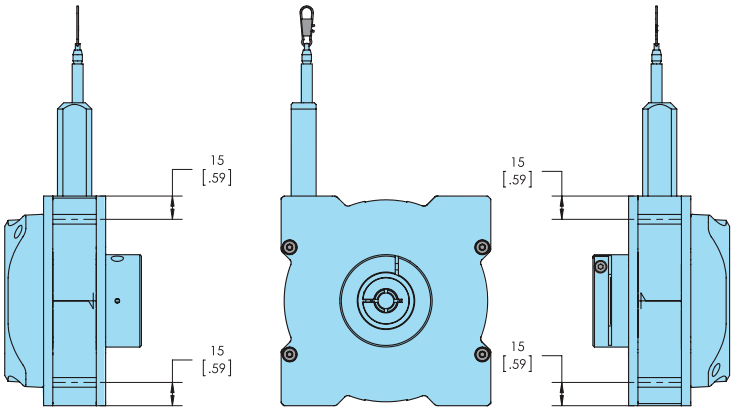
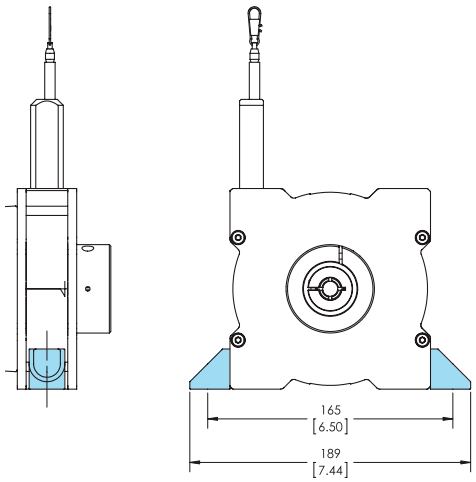
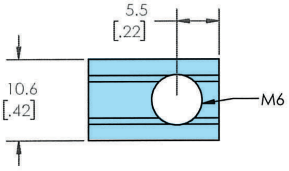
MODEL LCX135 CONTINUED

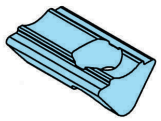
POSITIONS OF GROOVES FOR MOUNTING

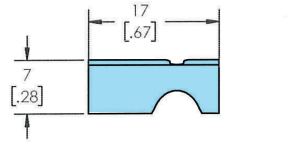


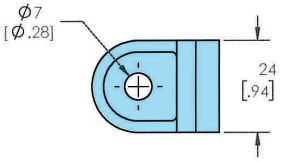
ANGLE CLAMP BRACKETS SPACING

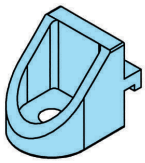


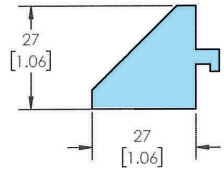


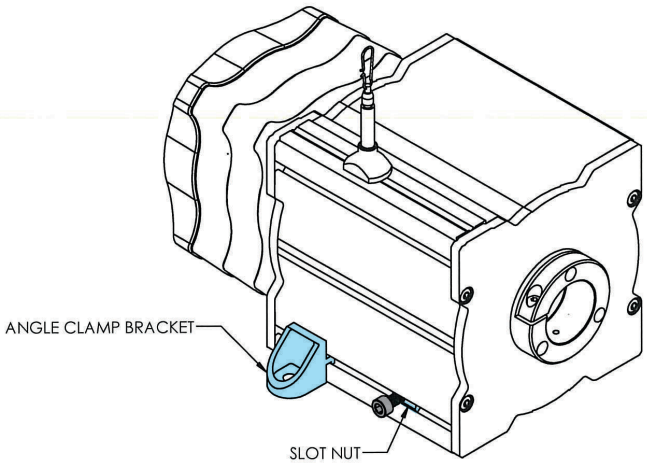












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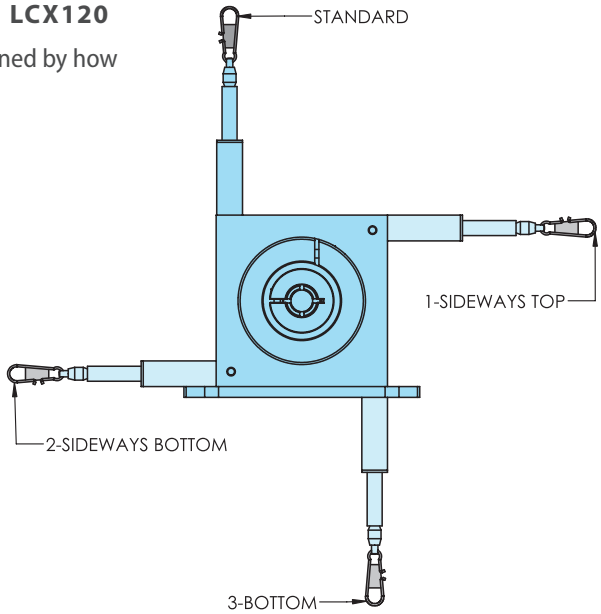
WIRE EXIT LOCATIONS FOR LCX80 AND LCX120

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

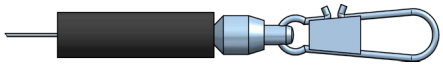
	Standard
1	Sideways top
2	Sideways bottom
3	Bottom



DRAW WIRE CONNECTORS

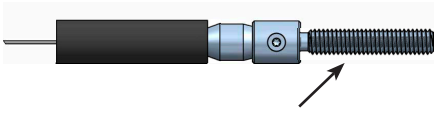
Standard

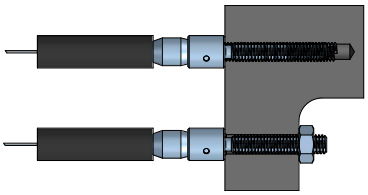
Wire attached with clip.



M4 Thread

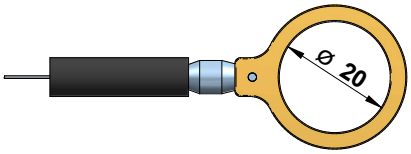
Pivoted wire attached by screw thread M4. Length: 22 mm. Ideal for attachment to through holes or threaded holes M4.





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

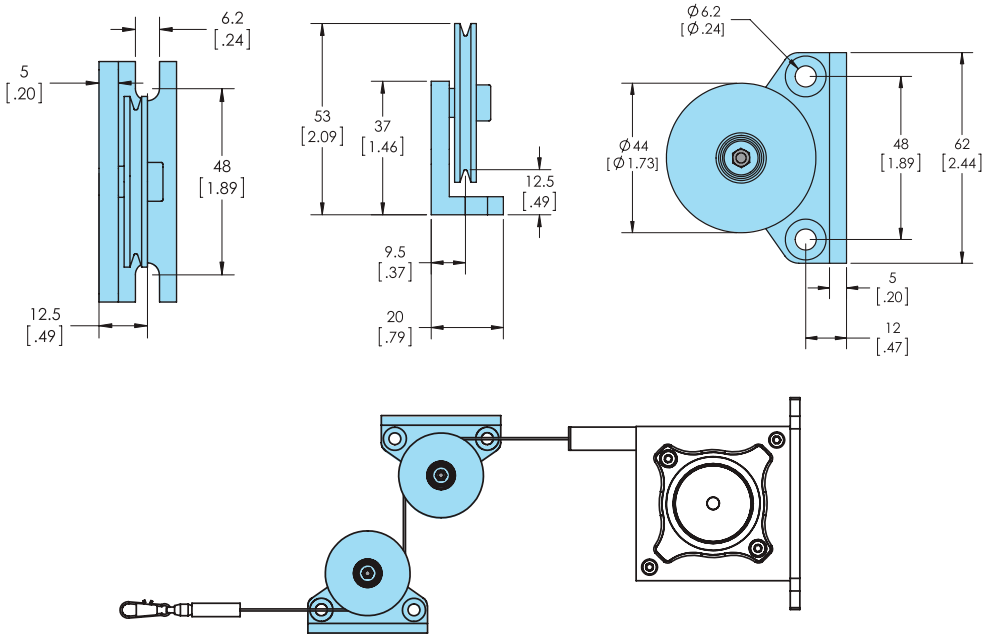
Material wire wheel: POM-C

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.

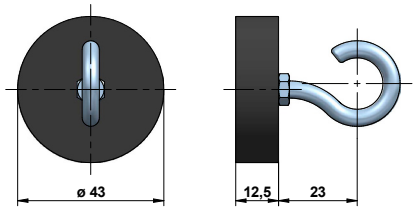
Temperature: -40° to 80° C

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.



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