

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°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 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/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.

LCX80	1M				
MODEL	DRAW WIRE LENGTH	DRAW WIRE EXIT²	DRAW WIRE CONNECTOR	OPERATING TEMPERATURE	CORROSION PROTECTION
LCX80 80 mm housing	LCX80	Standard	Standard Clip	-20° to 85° C (Std)	No Protection (Std)
LCX120 120 mm housing	1M 1 meter ¹	1 Sideways Top ¹	T M4 Thread ^{1,3}	T1 -40° to 85° C ¹	CP With Corrosion Protection ^{1,3}
LCX135 135 mm housing	2M 2 meter ¹	2 Sideways Bottom ¹	E 20 mm Eyelet ^{1,3}		
	3M 3 meter	3 Bottom ¹			
	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				

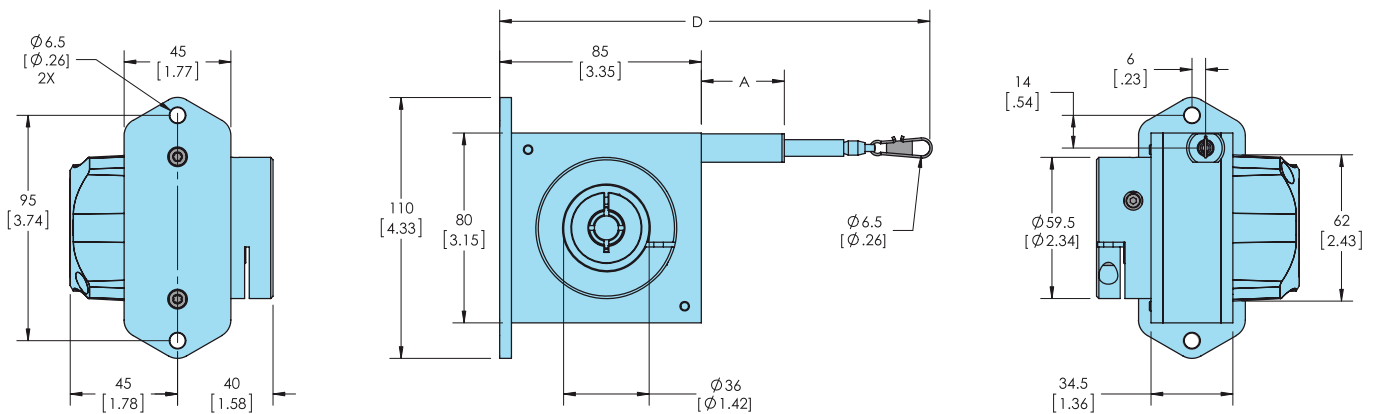
NOTES:

- 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

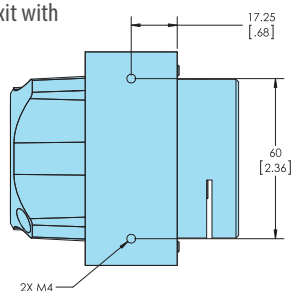
MODEL LCX80 SPECIFICATIONS

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/s²
 Weight700 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

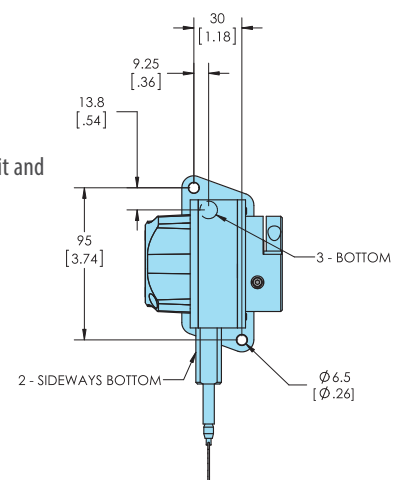


MEASUREMENT RANGE [MM]	A	D
1000 / 2000 [39.37/78.74]	21 [.83]	≈ 166 [6.54]
3000 [118.11]	35 [1.38]	≈ 180 [7.09]

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



Mounting for bottom wire exit and sideways bottom exit.

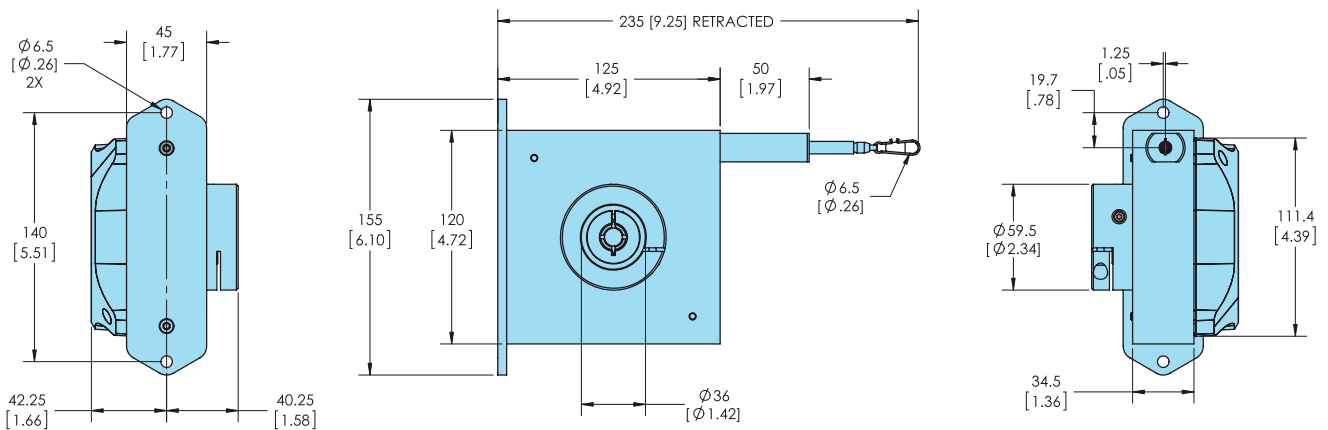


Note: All primary measurements and specifications in metric. Secondary standard measurements for reference only.

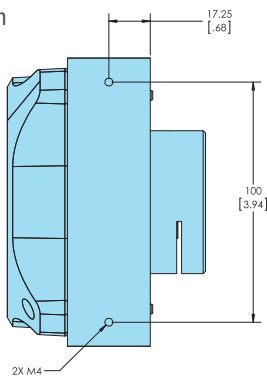
MODEL LCX120

MODEL LCX120 SPECIFICATIONS

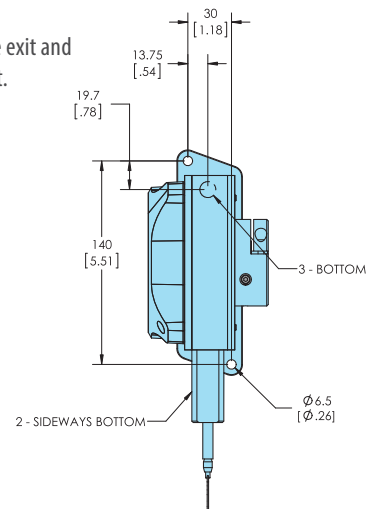
Encoder Requirements.....Clamping flange diameter 36 mm; Shaft diameter 10 mm; Shaft length 20 mm
 Measurement Range.....4 (4000 mm), 5 (5000 mm)
 Linearity $\pm 0.05\%$ (with encoder output)
 Sheave Circumference.....317.68 mm
 Extraction Force F_{min} 8 N
 Extraction Force F_{max}4 m = 11 N; 5 m = 11.6 N
 Velocity V_{max} 8 m/s
 Acceleration a_{max} 8 m/s²
 Weight1300 g to 1600 g, depending on the measurement range
 HousingAluminum, anodized, spring case PA6
 Wire Material.....Flexible stainless steel wire
 Corrosion ProtectionStandard 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.

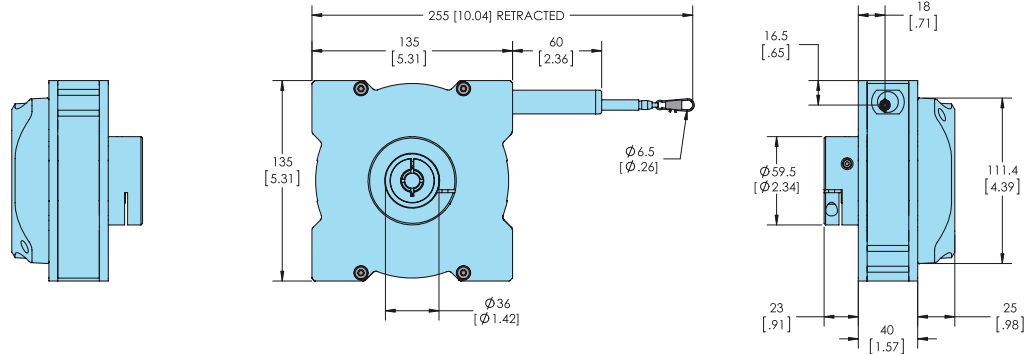
MODEL LCX135

MODEL LCX135 SPECIFICATIONS

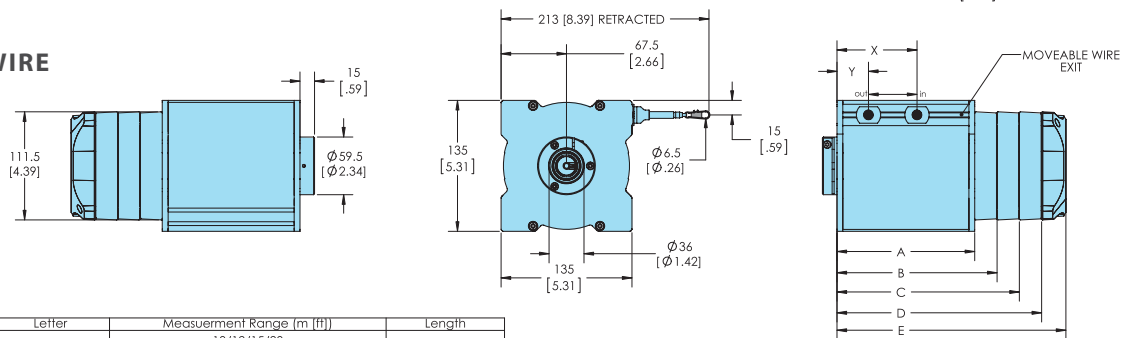
Encoder Requirements.....Clamping flange diameter 36 mm; Shaft diameter 10 mm; Shaft length 20 mm
 Measurement Range.....6 m, 7 m, 8 m, 10 m, 12 m, 15 m, 20 m, 25 m, 30 m, 35 m, 40 m, 42.5 m
 Linearity..... $\pm 0.05\%$ (with encoder output)
 Sheave Circumference.....6 - 8 m, 357.14 mm, 10 m to 42.5 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/s²; 10 - 15 m = 80 m/s²; 20 - 42.5 m = 60 m/s²
 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



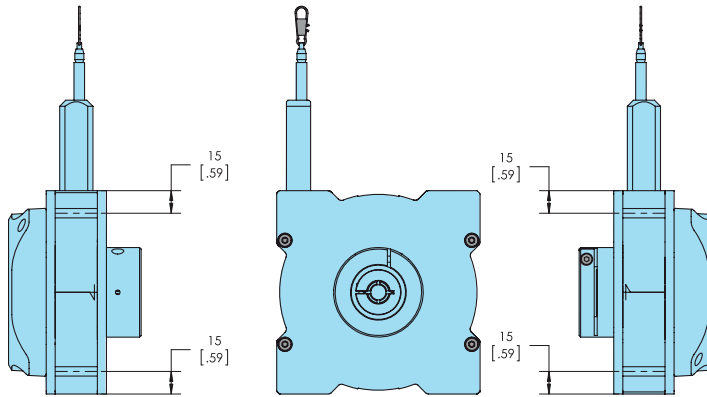
Letter	Measurement Range (m [ft])	Length
A	10/12/15/20 [32.8/39.4/49.2/65.6]	112 [4.41]
A	25/30/35/40/42.5 [82.0/98.4/114.8/131.2/139.4]	142 [5.59]
B	10/12 [32.8/39.4]	137 [5.39]
C	15/20 [49.2/65.6]	160 [6.30]
D	25/30 [82.0/98.4]	213 [8.39]
E	35/40/42.5 [114.8/131.2/139.4]	236 [9.29]

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)	33 [1.30]	36 [1.42]	41 [1.61]	48 [1.89]	56 [2.20]	63 [2.48]	71 [2.80]	78 [3.07]	82 [3.23]
...end of measurement range (Y)	18 [.71]	18 [.71]	18 [.71]	18 [.71]	18 [.71]	18 [.71]	18 [.71]	18 [.71]	18 [.71]

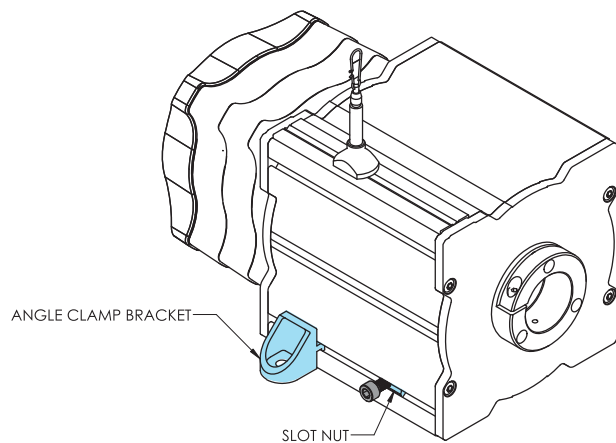
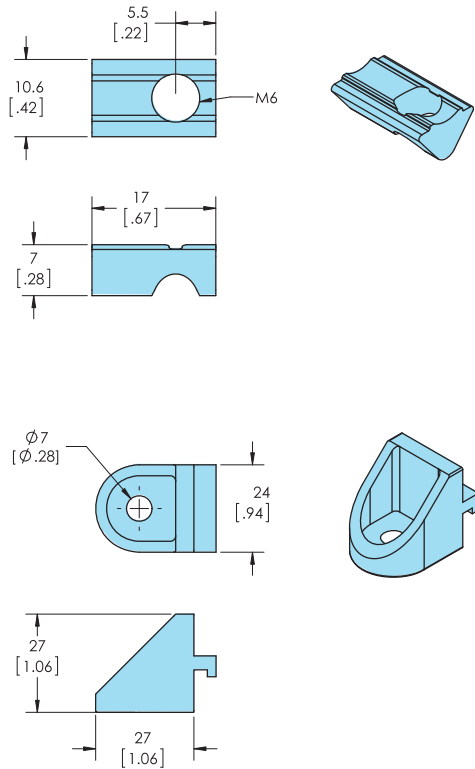
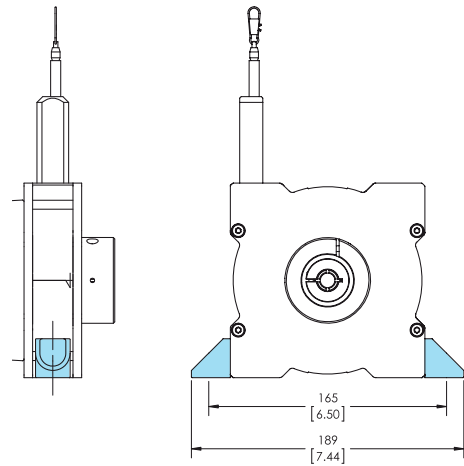
Note: All primary measurements and specifications in metric. Secondary standard measurements for reference only.

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.

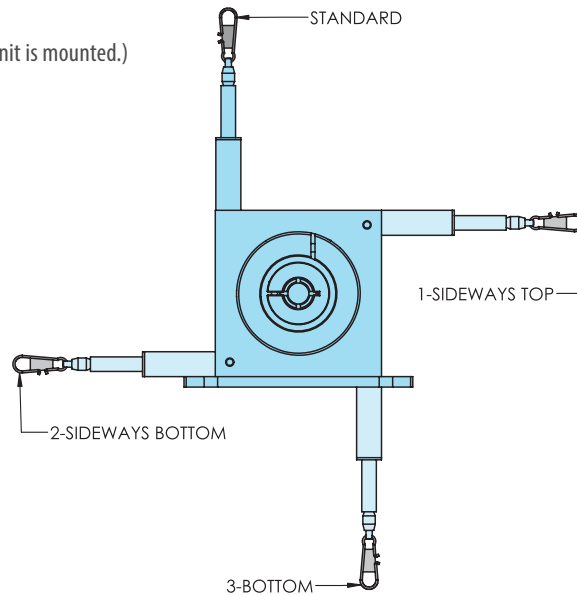
WIRE EXIT LOCATIONS FOR LCX80 AND LCX120

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

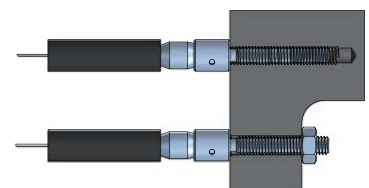
STANDARD

Wire attached with clip.



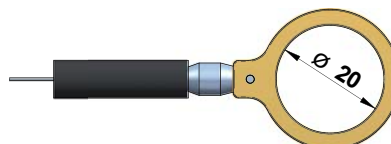
M4 THREAD

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

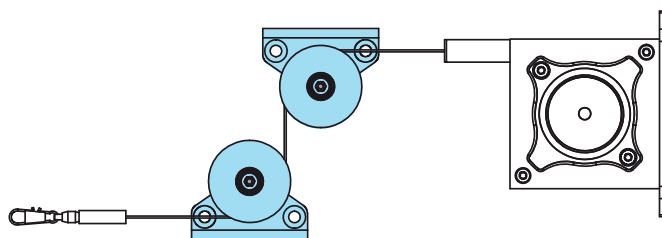
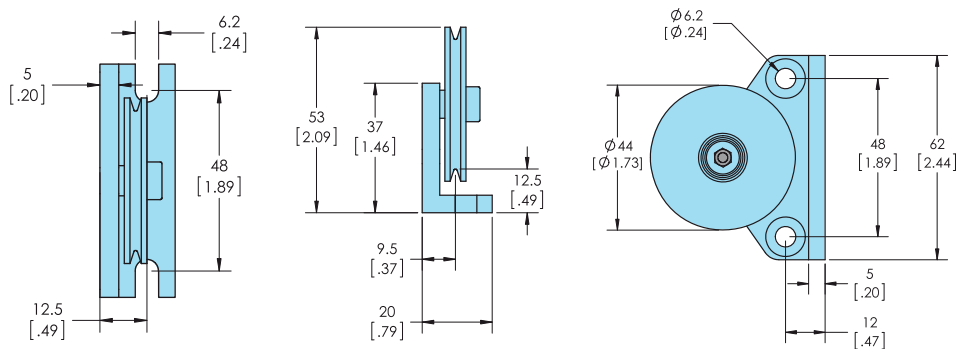
Mounting: By 2 hexagon socket or countersunk screws M6, vertical or horizontal mounting is possible.

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

Temperature: -40° to 80° C

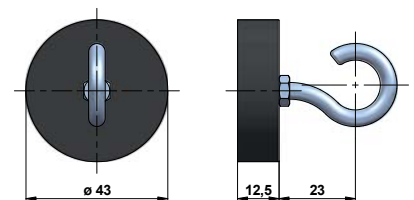


EPC stock #097001



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