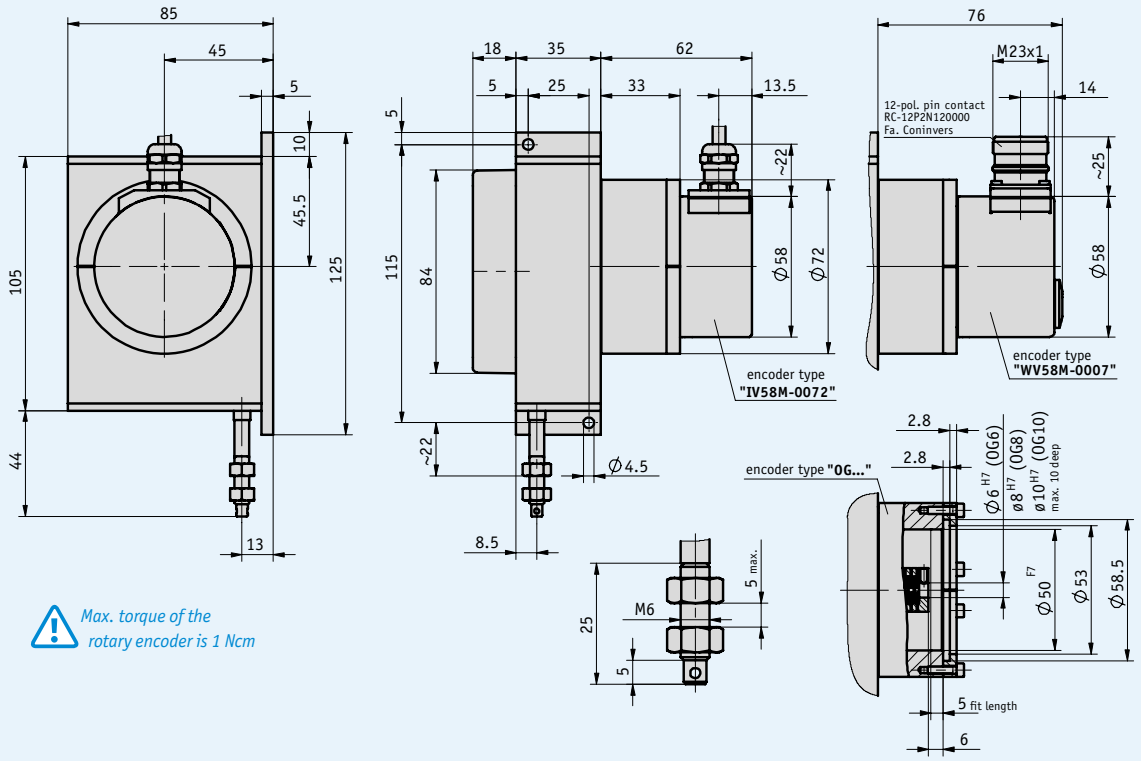
Profile

- Robust design
- Easy mounting
- Measurement lengths up to max. 12000 mm
- Incremental or absolute encoder
- Housing made of aluminum and plastic
- High flexibility thanks to free choice of rotary encoders with 58 mm standard flange
- Various wire types



Mechanical data

Feature	Technical data	Additional information
Travel speed	max. 3000 mm/s	
Pull-out force required	min. 8 N on the wire	
Measurement range	up to 12000 mm	
Repeat accuracy	depends on the direct. of approach ±0.15 mm	
Drum circumference	200 mm	
Wire design	steel wire Ø 0.54 mm	
	steel wire, plastic-coated Ø 0.87 mm	
	paraline Ø 1.05 mm	
Protection category	IP65 (with standard encoder)	protection category may vary depending on the rotary encoder type
Operating temperature	-20 ... +80 °C	
Weight	approx. 700 g	
Housing	aluminum/plastic	

Electrical data

Rotary encoders suitable for use with SG120 can be found in Catalog 2 RotoLine. Depending on the output signals, the following devices can be used:

- For analog outputs such as current or voltage: AV58M
- For incremental outputs: IV58M
- For absolute outputs: WV36M/SSI, WV36M/CAN

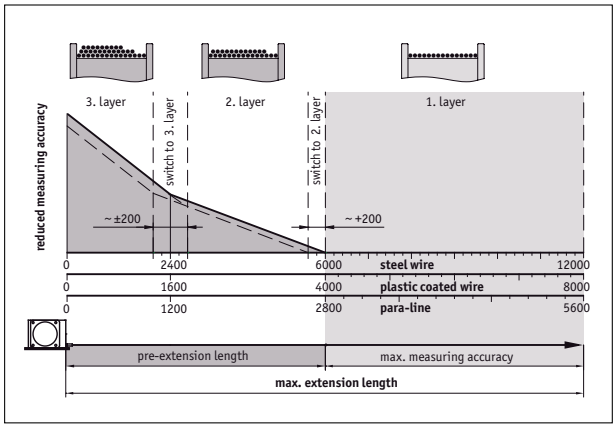
Please see data sheets for technical specifications on these devices. Furthermore, various encoder variants of diverse manufacturer can be used.

Pull-out length/Measurement range

The high degree of accuracy provided by SIKO's wire-actuated encoders is due to the fact that the whole wire length (measurement range) is wound on the drum in only a single layer. The comparably small diameter of the steel wire in the SG120 encoder enables achievement of the encoder's 6000 mm maximum measurement range using only the first drum layer. More room is required for the larger diameters of plastic-coated steel wire and synthetic paraline, resulting in measurement ranges which are accordingly shorter.

If a reduction in measurement accuracy is accepted, winding in 2 or 3 layers is also available, which alters the possible measurement lengths accordingly.

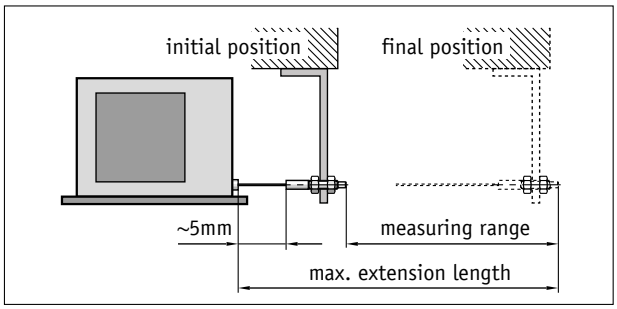
Pull-out lengths SG120	1st layer	2nd and 3rd layer
Steel wire	6000 mm	12000 mm
Steel wire, plastic-coated	4000 mm	8000 mm
Paraline	2800 mm	5600 mm



Dimensions indicated in millimeters

Mounting note

When you attach the wire, it should be pulled out straight in line with the wire outlet. **Recommendation:** A 5 mm wire extension is recommended before the measurement starting point. This prevents the wire snapping back to the stop on rewinding.



Symbolic representation

Order

Order table

Feature	Order data		Specifications	Additional information
Measurement range (mm)	...	A	2900 ... 12000	in steps of 100 mm
Wire design	S	B	stainless steel wire	measurement range max. 6100–12000 mm
	SK		steel wire, plastic-coated	measurement range max. 4100–8000 mm
	P		paraline, non-conducting, signal color	measurement range max. 2900–5600 mm
Encoder type	OG6	C	without encoder, with coupling diameter= 6 mm	see accessories
	OG8		without encoder, with coupling diameter= 8 mm	see accessories
	OG10		without encoder, with coupling diameter= 10 mm	see accessories
Color	N	D	nature anodized	
			others on request	

Order code

SG120 – [ ] – [ ] – [ ] – [ ]
A B C D

Scope of delivery: *SG120, User information*

Accessories:

Rotary encoders IV58M, WV36M/CAN, WV36M/SSI	*Catalog 2 RotoLine*
Guide roller	*Page 50*
Wire Extension Piece	*Page 51*

Additional information:

General information and areas of application	*Page 4 cont.*