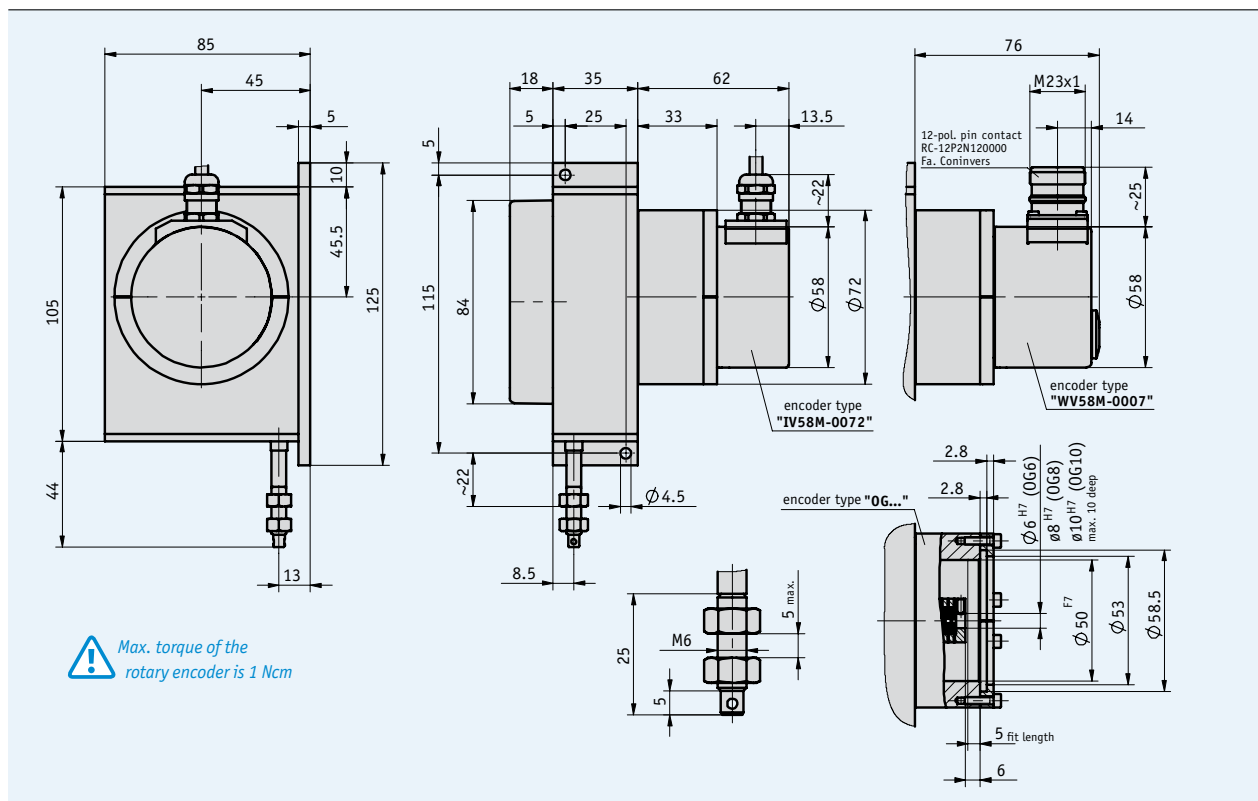


Profile

- 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



3.1

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	
Pull-out length	measurement range +10 mm	
Repeat accuracy	depends on the direct. of approach ± 0.15 mm	
Drum circumference	200 mm	
Wire design	steel wire ϕ 0.54 mm steel wire, plastic-coated ϕ 0.87 mm paraline ϕ 1.05 mm	
Protection category	IP65 (with standard encoder)	protection category may vary depending on the rotary encoder type
Operating temperature	-20 ... +80 °C	
Color	nature anodized	
Weight	approx. 700 g	
Housing	aluminum/plastic	

Electrical data

IV58M-0072 encoder type, incremental



Feature	Technical data	Additional information
Operating voltage	0 ... 30 V DC at 25 mA without load	
Output circuit	PP	
Output signals	AB0	
Steps per revolution	2000	
Resolution	0.1 mm (10 pulses per mm)	
Cable length (connection)	1 m with flying leads	
Protection category	IP65	

Encoder type WV58M-0007, absolute digital



Feature	Technical data	Additional information
Operating voltage	0 ... 30 V DC at 40 mA	
Interface	RS422/SSI	
Steps per revolution	4096 (12bit)	
Resolution	0.048 mm (20.48 pulses per mm)	
Connection	E2 (connector M12)	
Protection category	IP65	

3.1

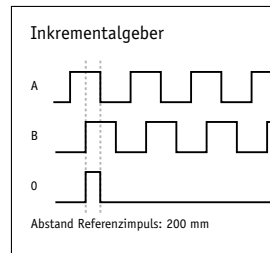
Pin assignment

IV58M-0004 encoder type, incremental

Signal	E1
0/I	green
A	yellow
B	white
GND	gray
+24 V DC	brown

WV58M-0007 encoder type, absolute digital

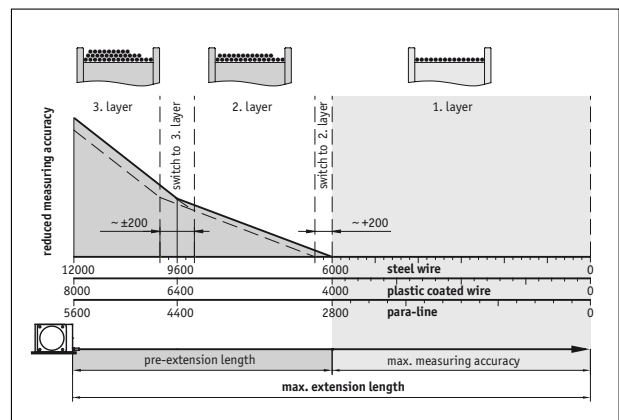
Signal	PIN
GND	1
+UB = +10 ... +30 V	2
Clock +	3
Clock -	4
Data +	5
Data -	6
RS485 DÜA	10
RS485 DÜB	12
N.C.	7-9, 11



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.

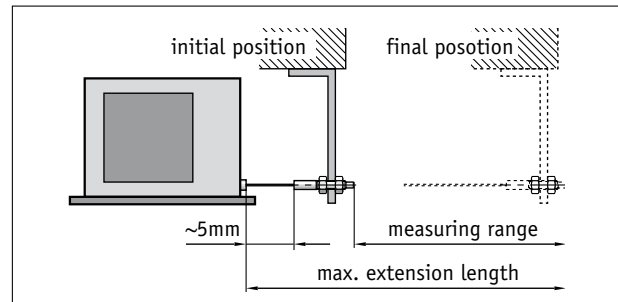
If a reduction in measurement accuracy is accepted, winding in 2 or 3 layers is also available, which alters the possible measurement lengths accordingly.



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

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	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*	IV58M-0072	incremental	
	WV58M-0007	absolute	
	OG6	without encoder, with clutch diameter= 6 mm	
	OG8	without encoder, with clutch diameter= 8 mm	
	OG10	without encoder, with clutch diameter= 10 mm	
Color	N	nature anodized	
	D	others on request	

* For additional encoder variants, refer to product data sheets IV58M and WV58M, see Catalog 2 RotoLine

Order code

SG120 - - - -
A B C D

Scope of delivery: SG120, User information

Accessories:

Guide roller Page 38
 Wire extension piece Page 39
 Electronic displays MA50 or MA10/4 Catalog 6 DisplayLine
 Rotary encoders IV58M, WV58M Catalog 2 RotoLine

Additional information:

General information and areas of application Page 4 cont.