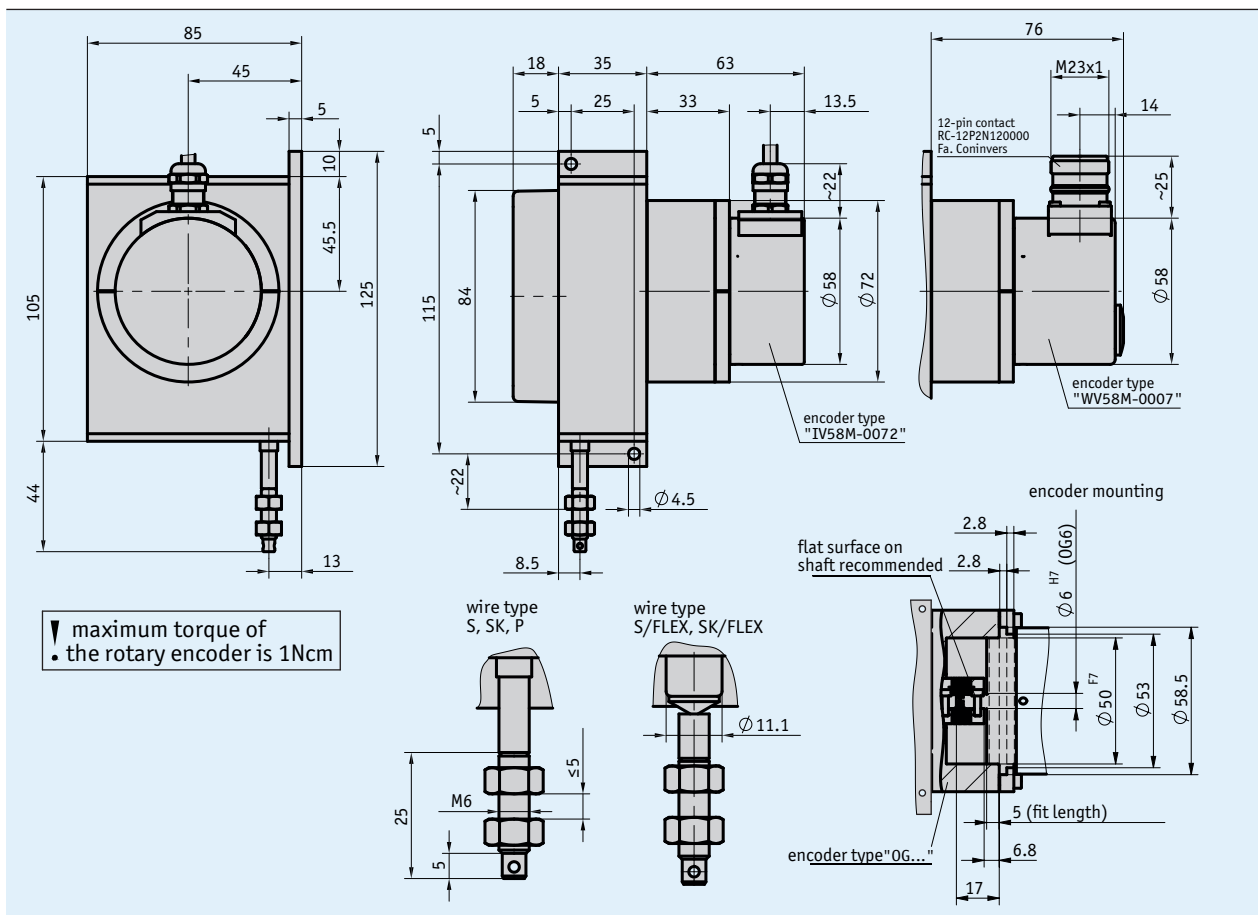


## Profile

- 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
Housing	aluminum/plastic	
Wire design	$\phi 0.54$ mm $\phi 0.87$ mm $\phi 1.05$ mm	steel wire steel wire, plastic coated para-line plastic rope
Extension force	$\geq 8$ N	on the wire
Measured distance/ rope drum revolution	200 mm	
Acceleration	$\leq 23.5$ m/s <sup>2</sup>	
Weight	$\sim 0.7$ kg	

## Electric data

Rotary encoders suitable for the SG120 are featured in RotoLine catalogue 2. Depending on the output signals the following are suitable for:

- Analog outputs such as current or voltage: AV58M
- Incremental outputs: IV5800
- Absolute outputs: WV58MR, WV36M/SSI, WV36M/CAN

The technical specifications for these devices are given in the respective data sheet. A number of transmitter versions of various manufacturers can also be used.

## System data

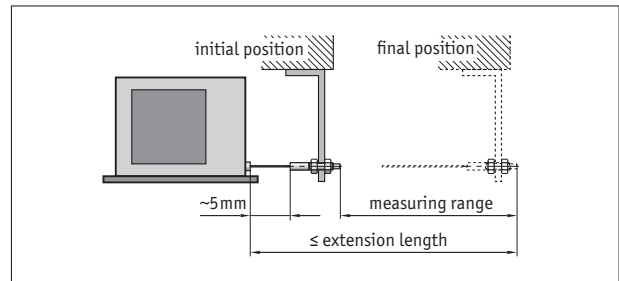
Feature	Technical data	Additional information
Repeat accuracy	±0.15 mm	depending on the direction of approach (1st layer)
Measuring range	≤12000 mm	
Travel speed	≤3000 mm/s	

## Ambient conditions

Feature	Technical data	Additional information
Ambient temperature	-20 ... 80 °C	
Protection category		depending on the rotary encoder installed

## Hint for mounting

When securing the wire it must be ensured that the wire is straight and vertical in relation to the wire outlet. Recommendation: Only select the starting position after an unwound length of approx. 5 mm. This prevents the wire hitting the end stop when it is rewound.

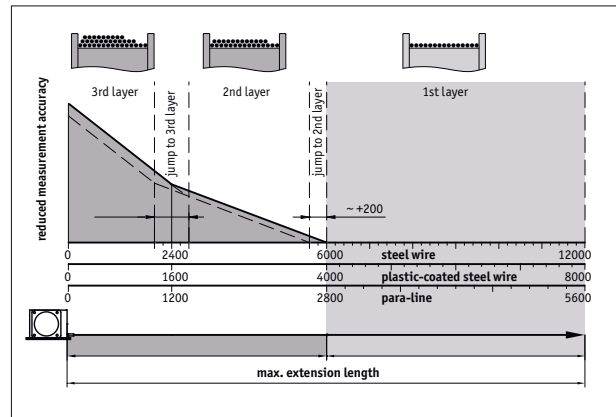


symbolic depiction

## Extension length/measuring range

SIKO wire-actuated encoders achieve the maximum measuring accuracy when the entire wire length (measuring range) is only wound onto the drum in one layer. On the SG120 the wire diameter is selected so that when the first drum layer is used, a maximum measuring range of 6000 mm is possible. The larger diameter of the plastic sheathed steel wire and the Paraline require more space. The result is a correspondingly shorter measuring range. If a lower measuring accuracy is acceptable, two to three layer winding is also possible, and the possible measuring lengths change accordingly.

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



dimensions refer to millimeters

## Order

### Ordering information

One or more system components are required:

- Absolute encoder AV58M
- Incremental encoder IV5800
- Absolute encoder WV58MR
- Absolute encoder WV36M/SSI
- Absolute encoder WV36M/CAN

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### Ordering table

Feature	Ordering data	Specification	Additional information
Measuring range	... <b>A</b>	2900 ... 12000 mm, in steps of 100 mm	
Wire design	<b>S</b>	stainless steel rope	measuring range ≤ 6100 ... 12000 mm
	<b>SK</b>	stainless steel rope, plastic-coated	measuring range ≤ 4100 ... 8000 mm
	<b>P</b>	para-line, non-conducting, signal color	measuring range ≤ 2900 ... 5600 mm
	<b>S/FLEX</b>	stainless steel rope, flexible rope outlet	
	<b>SK/FLEX</b>	stainless steel rope, plastic-coated, flexible rope outlet	
Color	<b>N</b> <b>C</b>	natural, anodized others on request	

### Order key

SG120 -  -  -  -

Scope of delivery: SG120

Accessories:  
Guide roller UR  
Wire extension piece SV

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