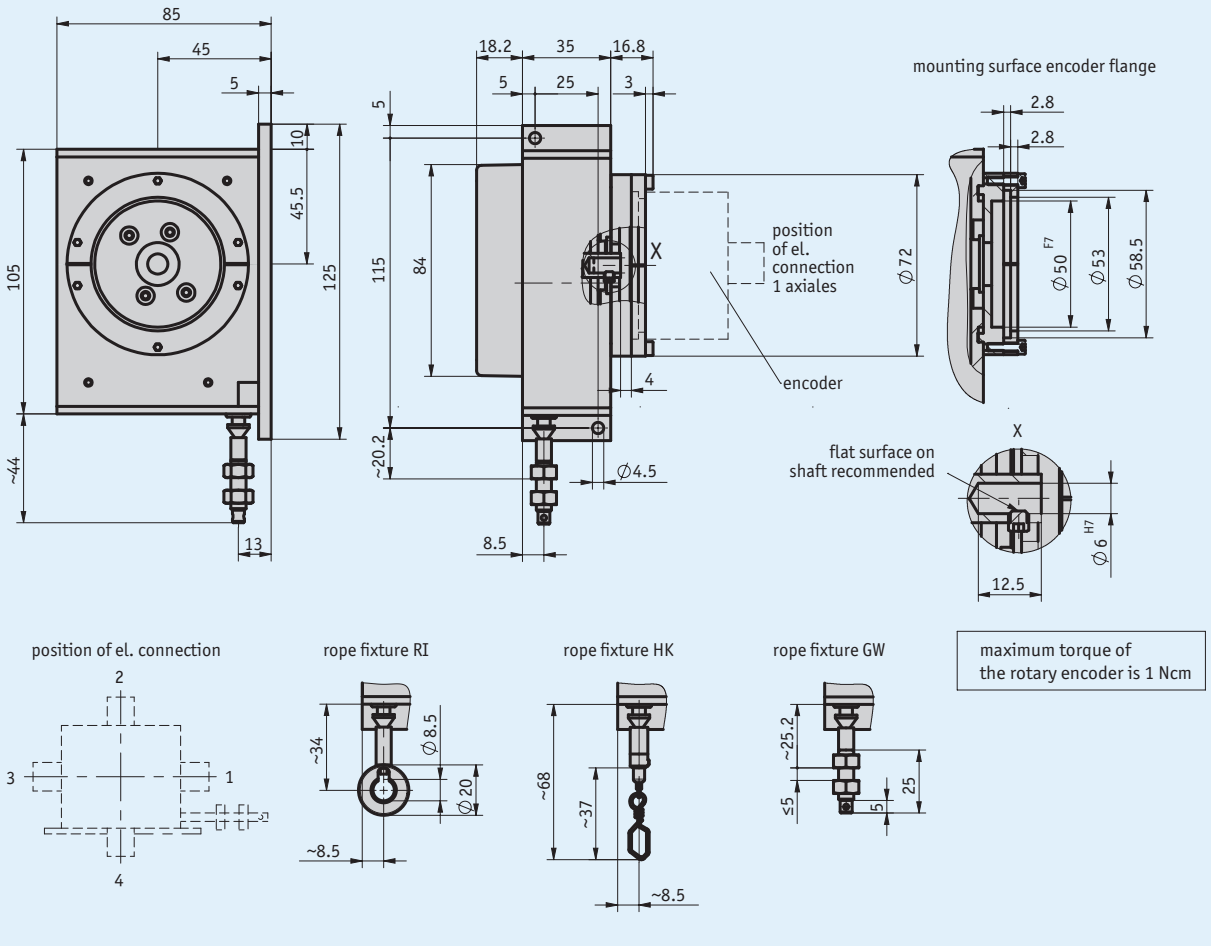
Draw-Wire Encoder SG121
robust design with 12 m measurement length

Profile

- Robust design
- Easy mounting
- Measurement lengths up to max. 12000 mm
- Flexible wire outlet thanks to Wire-Flex technology
- Incremental or absolute encoder
- Also available as a safety version in combination with WV58MR rotary encoder
- High flexibility thanks to free choice of rotary encoders with 58 mm standard flange
- Various wire types
- With PURE.MOBILE technology



Mechanical data

Feature	Technical data	Additional information
Housing	aluminum/plastic	
Wire design	ø0.6 mm	rustproof stainless steel
	ø0.6 mm	rustproof stainless steel, plastic-coated
	ø0.6 mm	para-line
Extension force	≥8 N	on the rope
Measured distance/ rope drum revolution	200 mm	

Electric data

You can find suitable rotary encoders on our website www.siko-global.com. They are suitable ...

- for analog outputs such as current or voltage: AV3650M, AV58M
- for incremental outputs: IV5800
- for absolute outputs: WV58MR, WV5800M, WV5850, WV3650M, WV36M/CAN

SIKO rotary encoders have the following interfaces, among others: incremental, SSI, CANopen, CANopen Safety, SAE J1939, various fieldbus protocols

The technical specifications for these devices can be found in the respective data sheets. In addition, numerous encoder variants from different manufacturers can be used.

System data

Feature	Technical data	Additional information
Repeat accuracy	±0.15 mm	mechanical, depending on the direction of travel (1st position)
Measuring range	≤12000 mm	

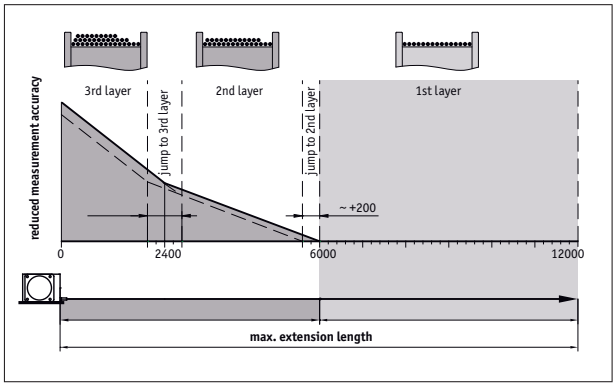
Ambient conditions

Feature	Technical data	Additional information
Ambient temperature	-20 ... +80 °C	
Protection category		depending on the mounted rotary encoder
Shock resistance	500 m/s², 11 ms	EN 60068-2-27
Vibration resistance	100 m/s², 5 ... 150 Hz	EN 60068-2-6

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 SG121, the wire diameter is selected so that when the first drum layer is used, a maximum measuring range of 6000 mm is possible.

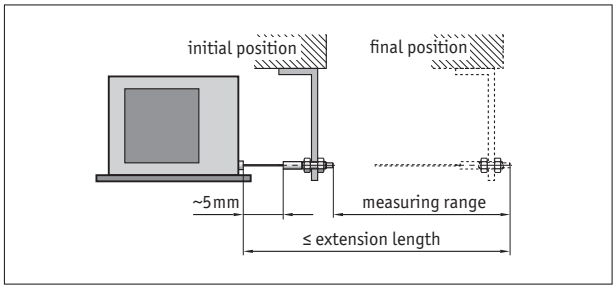
If a lower measuring accuracy is acceptable, two to three layer winding is also possible, and the possible measuring lengths change accordingly.



dimensions refer to millimeters

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

Order

Ordering information

One or more system components are required:

Absolute encoder WV58MR	www.siko-global.com
Absolute encoder WV5800M	www.siko-global.com
Absolute encoder WV5850	www.siko-global.com
Absolute encoder AV58M	www.siko-global.com
Incremental encoder IV5800	www.siko-global.com
Absolute encoder WV36M/CAN	www.siko-global.com

Ordering table

Feature	Ordering data		Specification	Additional information
Measuring range	...	A	7000, 8000, 9000, 10000, 11000, 12000 in mm	
Rope fixture	GW	B	wire suspension with thread	
	HK		wire suspension with hook	
	RI		wire suspension with ring	
Wire design	S	C	stainless steel wire	
	SK		steel wire, plastic-sheathed	
	P		para-leine	
Encoder type	OG6	D	without encoder	
	S6		great number of encoders possible	
Position of electrical connection	1	E	direction or wire outlet or axially	depending on installed encoder
	2		upward	
	3		opposite the wire outlet	
	4		downward	
	0		without encoder	

Order key

SG121 - [ ] - [ ] - [ ] - [ ] - [ ]
A B C D E

Scope of delivery: *SG121, Quick Start Guide*

Accessories you can find:

Guide roller UR	*www.siko-global.com*
Wire extension piece SV	*www.siko-global.com*

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