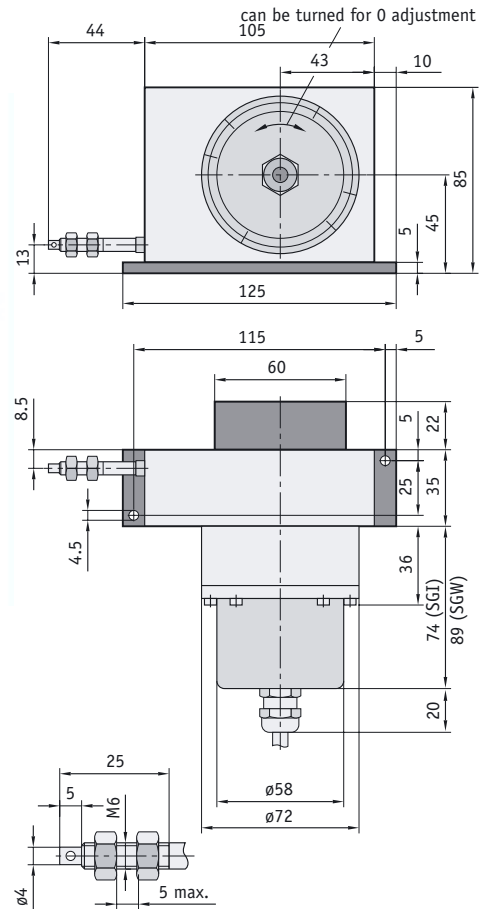
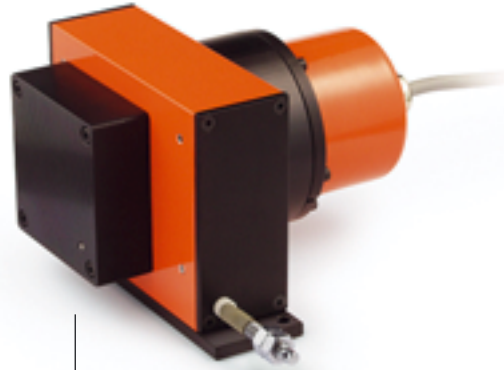


# Wire-actuated encoders SGW/SGI

Universal wire-actuated encoders with measurement lengths of max. 6 000 mm, robust design, precise and safe cable guidance, prepared for mounting various rotary encoders with 58 mm standard flange.



## Features:

- measurement lengths up to max. 6 000 mm
- all interfaces indicated can be used by adaptation of different standard rotary encoders
- robust aluminium housing

## Option

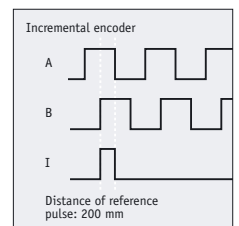
- Choice of cable types:
  - (S) steel cable: stainless, standard design
  - (SK) steel cable with plastic sheath:
    - low surface wear, 2 times more tear-resistant than steel cable
  - (P) para-line: 4 times more tear-resistant than steel cable

# Output circuits/Interfaces



## Encoder type: Incremental (SGI)

<b>Standard encoder N58</b>	<b>IV58-0003</b>
Operating voltage	24 V DC @ 70 mA
Output circuit	PP
Output signals	AB0
Resolution	10 pulses /mm
Cable length (connection)	1 m
Type of protection	IP54



Cable	Pin assignment
white	0 V
grey-pink	0 V Sense
brown	+UB = +10 ... +30 V
red-blue	+UB Sense
green	A
yellow	/A
grey	B
pink	/B
blue	0
red	/0

\* internally connected



## Encoder type: Absolute, digital

<b>Standard encoder</b>	<b>MV58-0001</b>
Operating voltage	24 V DC @ 30 mA
Steps/revolution	4096 (12bit) at 204.8 mm drum circumference
Interface	SSI
Resolution 1 bit	0.05 mm
Cable length (connection)	1 m
Type of protection	IP54

### Special features: Cable versions/measurement ranges

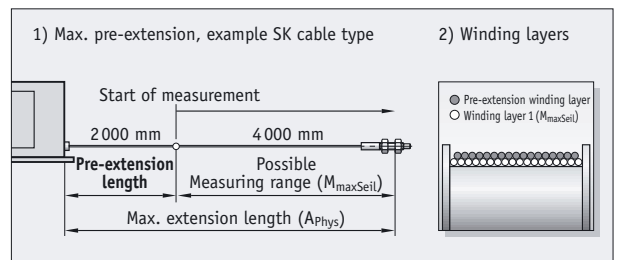
Wire-actuated encoders attain their accuracy because only one cable layer is wound on the drum. The comparably smaller diameter of the S steel cable makes it possible to use the encoder's maximum measurement range of 6 000 mm. In contrast, larger cable diameters consume more space leading to shorter measuring ranges as is the case with P and SK cable types.

However, further winding up of the cable is possible with a second layer. For para-line (P), this additional cable length is max. +1400 m and for plastic-sheathed steel (SK) it is max. 2 000 mm. This is especially useful if there is a distance between the start of the measurement range and the encoder. This distance can be bridged by means of an additional pre-extension length (note: this is not a cable extension!). Information on the desired pre-extension length to the start of measurement can be given in steps of 100 mm.

Cable	Pin assignment
white	0 V
brown	+UB = +10 ... +30 V
green	cycle +
yellow	cycle -
grey	data +
pink	data -
blue	SET input
red	forward/backward input
black	output 1
violet	output 2
grey-pink	output 3
red-brown	output 4

Cable versions/meas. ranges P	SK	S
max. extension length ( $A_{Phys}$ )	6 000 mm	6 000 mm
cable-type dependent measuring range ( $M_{maxCable}$ )	4 000 mm	6 000 mm
Pre-extension length ( $A_{Phys}-M_{maxCable}$ )	2 000 mm	

Table A



Graph B

Feature	Ordering data	Technical data	Additional information
Travel speed		max. 3 m/s	
Required cable extension force		min. 5 N (SGI) or min. 8 N (SGW) on the cable	
Measurement range		up to 6000 mm	
Extension length		measurement range +10 mm	
Repeat accuracy		dependent on start direction, ~0.05 mm	
Type of protection		IP54 (standard encoder)	other encoders may have another type of protection
Working temperature		approx. -10 °C ... +80 °C	
Housing		aluminium	
Colour		orange, RAL 2004	others on request
Weight		approx. 1050 g (SGI), approx. 1300 g (SGW)	
Type	SGI	SGW	
Measurement range in mm	6000	6000	S, stainless steel
	4000	4000	SK, steel, plastic sheath
	2800	2800	P, para-line, non-conducting, signal colour
Pre-extension length	0	0	<b>standard</b>
	...	...	length in mm, in steps of 100 mm
Drum circumference	200	200	200 mm (decimal step sequence)
	204.8	204.8	204.8 mm (binary step sequence)
Cable version*	S	S	steel cable, stainless
	SK	SK	steel with plastic sheath
	P	P	para-line, non-conducting, signal colour
Encoder type**	N58	MV58	standard diam. 58 mm
	S	S	customer-defined SIKO encoder
	0	0	without encoder

\* Cable thickness: S = diam. 0.54 mm, SK = diam. 0.87 mm, P = diam. 1.05 mm, \*\* For referencing, the encoders can be rotated on the flange

Your order:

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