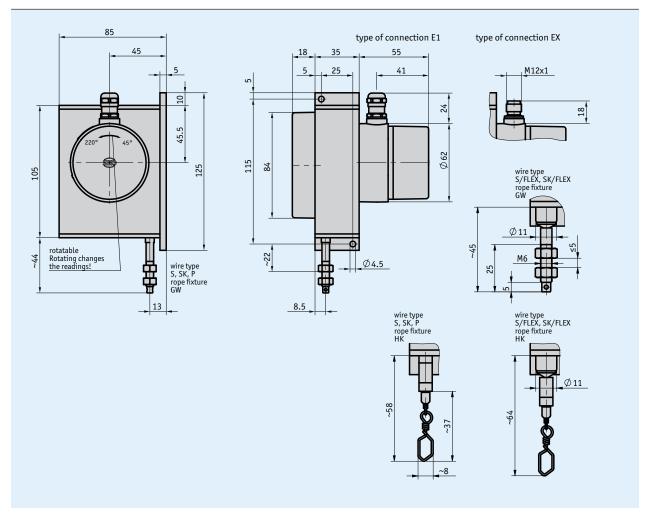
Wire-actuated encoder SGP/1 robust design with analog output and 6000 mm measurement length

Profile

- Robust design
- Measurement lengths up to max. 6000 mm
- Potentiometer, voltage or power output
- Housing made of aluminum and plastic
- Potentiometer/resistance range adapted to actual measurement length via an integrated gear
- Various wire types







Mechanical data

| Feature | Technical data | Additional information |
|---|------------------------|--|
| Housing | aluminum/plastic | |
| Wire design | ø0.54 mm | steel wire (stainless) |
| | ø0.87 mm | steel wire (stainless), plastic coated |
| | ø1.05 mm | Paraleine |
| Extension force | ≥8 N | |
| Measured distance/ rope drum revolution | 200 mm | |
| Acceleration | ≤23.5 m/s ² | |
| Weight | ~0.7 kg | |

max. travel speed

| Measuring range [mm] | 750 | 1000 | 1250 | 1500 | 1750 | 2000 | 2250 | 2500 | 2750 | 3000 | 3250 | 3500 | 6000 |
|----------------------|------|------|------|------|------|------|------|------|------|------|------|-------|-------|
| Travel speed [mm/s] | ≤200 | ≤300 | ≤300 | ≤400 | ≤490 | ≤500 | ≤600 | ≤700 | ≤800 | ≤800 | ≤900 | ≤1000 | ≤1000 |

Electrical data

Encoder potentiometer

| Feature | Technical data | Additional information |
|----------------------------|----------------|------------------------|
| Power rating Resistance | 2 W at 70 °C | |
| Resistance | 1 kΩ | P01 |
| | 2 kΩ | P02 |
| | 5 kΩ | P05 |
| | 10 kΩ | P10 |
| Resistance tolerance | ±5 % | |
| Linearity tolerance | ±0.25 % | |

■ Transducer, power output

| Feature | Technical data | Additional information |
|-------------------|----------------|--------------------------------|
| Operating voltage | 10 30 V DC | between I+ and I-, load ≤500 Ω |
| Output current | 4 20 mA | |

■ Transducer, voltage output

| Feature | Technical data | Additional information |
|-------------------|----------------|------------------------|
| Operating voltage | 15 28 V DC | at 3 mA without load |
| Output voltage | 0 10 V DC | |
| Resistance | 2 10 kΩ | against GND |
| Load | ≤15 mA | |

^{*} Measurement transducers permit optimum adjustment of the output current and output voltage to the measuring range. The measurement transducer is pre-set at the works so that an output signal of 4 ... 20 mA (MWI) or 0 ... 10 V DC (MWU) is available.

System data

| Feature | Technical data | Additional information |
|-----------------|----------------|---------------------------|
| Repeat accuracy | ~0.5 mm | per direction of approach |
| Travel speed | see table | |

Ambient conditions

| Feature | Technical data | Additional information |
|---------------------|---------------------------|------------------------------|
| Ambient temperature | -20 80 °C | T1 |
| | -40 80 °C | T2 (draw-in speed ≤800 mm/s) |
| Protection category | IP65 (potentiometer part) | EN 60529 |



Pin assignment

Potentiometric outputs P10

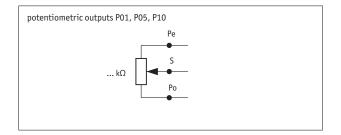
| Signal | E1 (terminal) | E12 (connector pin) |
|--------|---------------|---------------------|
| Po | brown | 1 |
| Pe | white | 2 |
| S | green | 3 |
| nc | | 4 |
| | | |

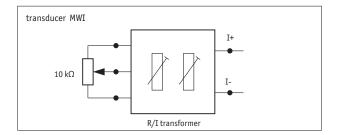
MWI transducer

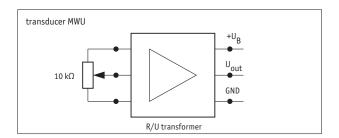
| Signal | E1 (terminal) | E12 (connector pin) |
|--------|---------------|---------------------|
| I+ | 1 | 1 |
| I- | 2 | 2 |
| nc | 3 | 3 |
| nc | | 4 |

MWU transducer

| Signal | E1 (terminal) | E12 (connector pin) |
|------------------|---------------|---------------------|
| +24 V DC | 1 | 1 |
| GND | 2 | 2 |
| U _{out} | 3 | 3 |
| nc | | 4 |



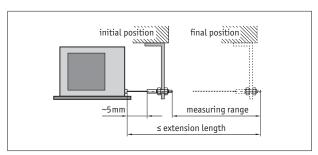




Hint for mounting

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 table

| Feature | Ordering data | Specification | Additional information |
|-----------------------|---------------|--|---------------------------|
| Measuring range | A | 750 6000 mm, in steps of 250 mm | |
| Rope fixture | GW | wire suspension with thread | |
| Kope lixture | | · | |
| | НК | wire suspension with hook | |
| Wire design | S | stainless steel rope | measuring range ≤ 6000 mm |
| • | SK | stainless steel rope, plastic-coated | measuring range ≤ 4000 mm |
| | P | para-line, non-conducting, signal color | measuring range ≤ 2800 mm |
| | S/FLEX | stainless steel rope, flexible rope outlet | measuring range ≤ 6000 mm |
| | SK/FLEX | stainless steel rope, plastic-coated, flexible rope outlet | measuring range ≤ 4000 mm |
| | | | |
| Type of connection | E1 | cable gland PG7 | cable ø 3-6.5 mm |
| | EX | for M12 connector | |
| | | | |
| Potentiometer type | 02 | 10 helices/wire | (P01, P05, P10) |
| | 03 | 10 helices/hybride | (P01, P05, P10) |
| | | | |
| Analog output | MWI | 4 20 mA transducer | |
| | MWU | 0 10 V transducer | |
| | P01 | potentiometer 1 kΩ | |
| | P05 | potentiometer 5 kΩ | |
| | P10 | potentiometer 10 k Ω | |
| | | | |
| Operating temperature | T1 | -20 +80 °C | |
| | T2 | -40 +80 °C | ≤ feed speed 800 mm/s |

Order key



 $\textbf{\textit{Scope of delivery:}} \ \textit{SGP/1, Mounting instructions}$



Accessories:

Electronic display MA50 Guide roller UR Wire extension piece SV Mating Connector Overview Mating connector, EX, 4-pole, socket www.siko-global.com www.siko-global.com www.siko-global.com www.siko-global.com Order key 83419