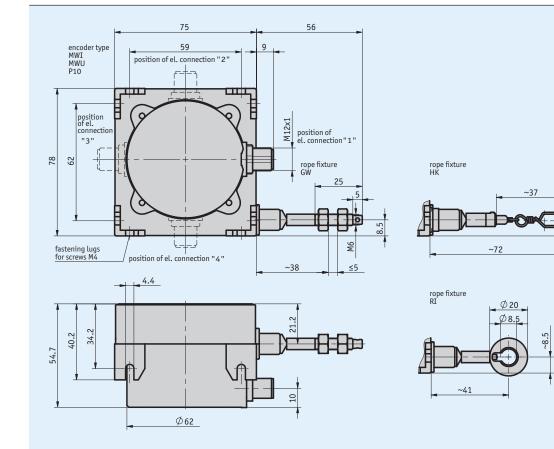
# **Draw-Wire Encoder SG30** robust design with a measurement length of 3000 mm

## Profile

- Compact, robust design
- Variable mounting options
- Measuring lengths up to 3000 mm
- Potentiometer, voltage or power output
- Housing made of zinc die-cast and plastic
- Lockable ventilation holes against condensation
- High tightness at the rope outlet
- M12 plug connection





#### **Mechanical data**

Feature	Technical data	Additional information	
Housing	zinc die-cast, plastic		
Wire design	ø0.61 mm	rustproof stainless steel, plastic-coated	
	ø0.6 mm	rustproof stainless steel	
Extension force	≥9 N		
Cable length	≤30 m	P10, MWI encoder types	
	≤20 m	MWU encoder type	
Weight	~0.5 kg		

# **Electrical data**

#### **Encoder potentiometer**

Feature	Technical data	Additional information
Power rating	2 W at 70 °C	
Resistance	10 kΩ	
Resistance tolerance	±5 %	
Linearity tolerance	±0.25 %	
Type of connection	M12 plug connector (A-coded)	4-pole, 1x pin

#### Transducer, power output

Feature	Technical data	Additional information
Operating voltage	7 30 V DC	at 0 Ω load
	12 30 V DC	at 250 Ω load
	17 30 V DC	at 500 $\Omega$ load
Output current	4 20 mA	
Type of connection	M12 plug connector (A-coded)	4-pole, 1x pin

#### 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	I <sub>Load</sub> ≤10 mA
Resistance	2 10 kΩ	against GND
Load	≤15 mA	
Type of connection	M12 plug connector (A-coded)	4-pole, 1x pin

\* 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	±0.15 mm	per direction of approach	
Measuring range	≤3000 mm		
Travel speed	≤800 mm/s		

## **Ambient conditions**

Feature	Technical data	Additional information
Ambient temperature	-40 80 °C	
Relative humidity		condensation inadmissible
Protection category	IP65 (encoder part)	EN 60529

# Pin assignment

#### Potentiometric outputs P10

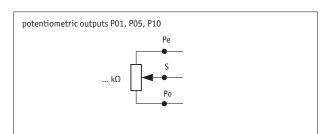
Signal	PIN
Ро	1
Pe	2
S	3
	4

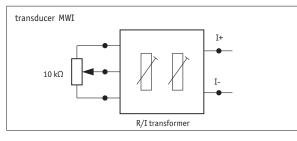
#### MWI transducer

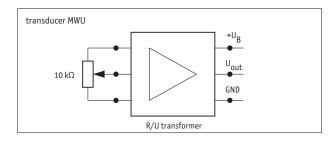
Signal	PIN
I+	1
I-	2
nc	3
nc	4

#### MWU transducer

Signal +24 V DC	PIN
	1
GND	2
U <sub>out</sub>	3
nc	4

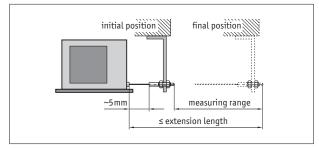






### Hint for mounting

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 representation

## **Order**

#### • Ordering table

Feature	Ordering data	Specification	Additional information
Measuring range	••• A	2000, 2500, 3000 in mm	
Rope fixture	GW	wire suspension with thread	
	нк 🖻	wire suspension with hook	
	RI	wire suspension with ring	
Wire design	S C	stainless steel rope	
	SK 🕓	stainless steel rope, plastic-coated	
Encoder type	MWI	transducer, current	
	MWU	transducer, voltage	
	P10	potentiometer	
		·	
Position of electrical connection	1	direction of wire outlet	
	2	upward	
	3	opposite the wire outlet	
	4	downward	

#### • Order key



#### Scope of delivery: SG30

#### Accessories you can find: Electronic display MA50 Guide roller UR Wire extension piece SV Mating Connector Overview Mating connector, P10, MWI, MWU, 4-pole, socket Mating connector, P10, MWI, MWU, 4-pole, socket

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