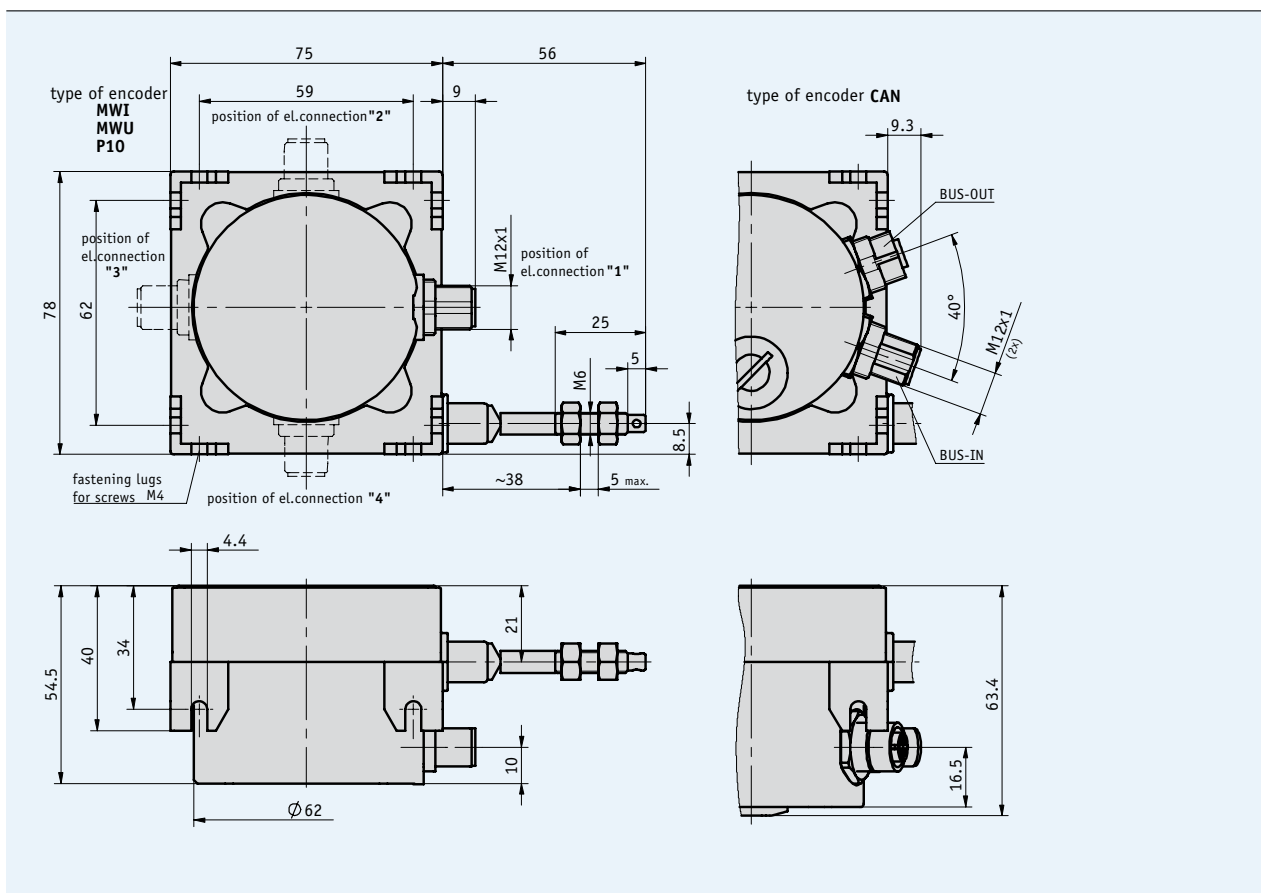


## Profile

- Compact, robust design
- Variable mounting options
- Measurement lengths up to 3000 mm
- Potentiometer, voltage or power output; CAN bus interface as an option
- Housing made of zinc die-cast and plastic
- Closable ventilation openings to prevent condensation
- High tightness on the wire outlet
- M12 plug connection



### Mechanical data

Feature	Technical data	Additional information
Travel speed	max. 800 mm/s	
Pull-out force required	min. 3 N on the wire	
Measurement range	up to 3000 mm	
Pull-out length	measuring range +10 mm	
Repeat accuracy	depends on the direction of approach, $\pm 0.15$ mm	
Drum circumference	200 mm	
Wire design	stainless steel wire, $\varnothing 0.9$ mm	plastic-coated
Protection category	IP65	with standard encoder
Condensation	inadmissible	
Connection	connector	
Operating temperature	$-40 \dots +80$ °C	
Weight	approx. 500 g	
Housing	zinc die-cast/plastic	

### Electrical data

#### ■ P10 encoder type, Potentiometer



Feature	Technical data	Additional information
Value of resistance	10 k $\Omega$	
Linearity of potentiometer	0.25 %	
Resistance tolerance	$\pm 5$ %	
Power rating	1 W	
Pull-out length	0 mm : 0 $\Omega$	
Cable length (connection)	max. 30 m	

Additional potentiometer values on request

#### ■ MWI encoder type, current source (transducer\*)



Feature	Technical data	Additional information
Output current	4 ... 20 mA	
Potentiometer	10 k $\Omega$	
Operating voltage	15 ... 28 V DC	
Load resistance	<500 $\Omega$	
Cable length (connection)	max. 30 m	

#### ■ MWU encoder type, voltage source 0 ... 10 V DC (transducer\*)



Feature	Technical data	Additional information
Output current	0 ... 10 V DC	
Recommended load resistance	2 ... 10 k $\Omega$ to GND	
Max. load	15 mA	
Operating voltage	15 ... 28 V DC with 3 mA without load	
Cable length (connection)	max. 20 m	

\***Transducers** allow optimum adaptation of output current or output voltage to the measurement range. The transducer is preset at delivery to provide an output signal of 4 ... 20 mA (MWI) or 0 ... 10 V DC (MWU) between the starting point and the end point of the measurement range.

#### ■ Encoder type CAN, CAN bus



Feature	Technical data	Additional information
Operating voltage	24 V DC $\pm 20$ % at 40 mA	
Interface	CANopen	
Baud rate	250 kBit/s	
Steps per revolution	1024 (10 Bit)	
Resolution	0.195 mm (5.12 pulses per mm)	

## Pin assignment

### ■ Potentiometric outputs P10

Signal	PIN
Po	1
Pe	2
S	3
	4

### ■ MWI transducer

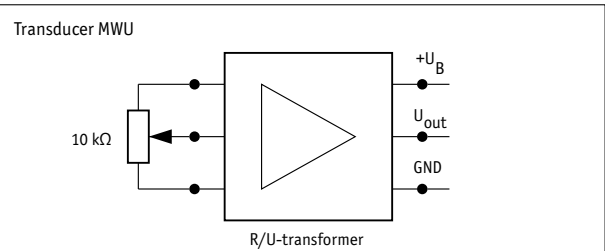
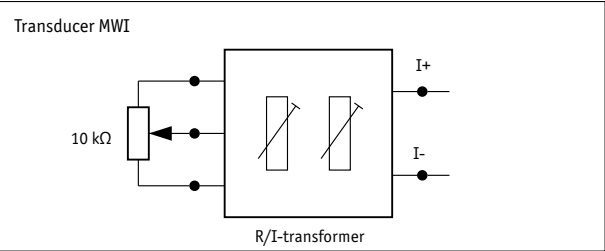
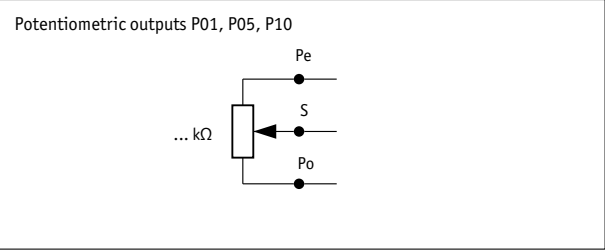
Signal	PIN
I+	1
I-	2
N.C.	3
N.C.	4

### ■ MWU transducer

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

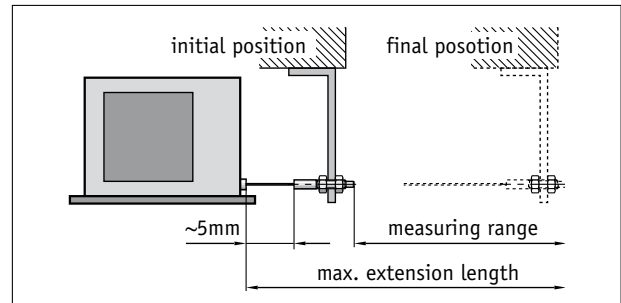
### ■ Encoder type CAN, CAN bus

Signal	PIN
GND	1
+24 V DC	2
CAN-GND	3
CAN-high	4
CAN-low	5



**Mounting note**

When you attach the wire, it should be pulled out straight in line with the wire outlet. **Recommendation:** A 5 mm wire extension is recommended before the measurement starting point. This prevents the wire snapping back to the stop on rewinding.



Symbolic representation

**Order**

■ **Order table**

Feature	Order data	Specifications	Additional information
Measurement range (mm)	... <b>A</b>	2000, 2500, 3000	
Encoder type	<b>CAN</b>	<b>B</b> CAN bus protocol	
	<b>MWI</b>	transducer current	
	<b>MWU</b>	transducer voltage	
	<b>P10</b>	potentiometer	
Position of electrical connection	<b>1</b>	<b>C</b>	0°
	<b>2</b>		90°
	<b>3</b>		180°
	<b>4</b>		270°

■ **Order code**

SG30 -  -  -

**Scope of delivery:** SG30, User information

**Accessories:**

Guide roller  
Electronic displays MA50 or MA10/4

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**Additional information:**

General information and areas of application

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