

# Linear Measuring Technology

## Measuring system for Shaft-copying

Measuring system for elevators

LM3, BLM1 and ZAR

Guided-belt



System for shaft-copying, with complete mechanical kit in proven toothed belt technology. A smooth-running toothed belt and a vibration-resistant encoder mounting fixture ensure quiet operation. The belt pulley can be mounted directly on the encoder shaft. With the guided-belt system, the encoder mounting fixture and the measuring wheels are located on the elevator car.

**Ideal for use in:**

- Passenger elevators
- Freight elevators
- Automatic storage systems

**Complete System:**

- Quick, easy mounting
- With accessories from a single source

**Smooth-running toothed-belt system:**

- Minimal noise generation
- Non-slip

### Encoder mounting fixture

Simple encoder mounting fixture with measuring wheel, for fixing on the elevator car:



- Tensioning rollers with belt guide
- Smooth-running toothed-belt ensures extremely quiet operation
- Quick, easy mounting

**Complete encoder mounting fixture comprising:**

- Encoder mounting fixture
- Measuring wheel
- Belt guide
- Belt fixing and tensioning set
- Screws and other small components

**Suitable encoders:**

- Incremental encoder: 8.5000.73XX.XXXX

Calculation of pulse rate PPR =

$$\frac{300 \text{ mm}}{\text{Resolution, e.g. } 0.5 \text{ mm}} = 600$$

- Absolute encoders:

- SSI: 8.5863.12XX.XXXX.
- CANOpen: 8.5868.12XX.XXXX.

**Order code 8.LM3.01**

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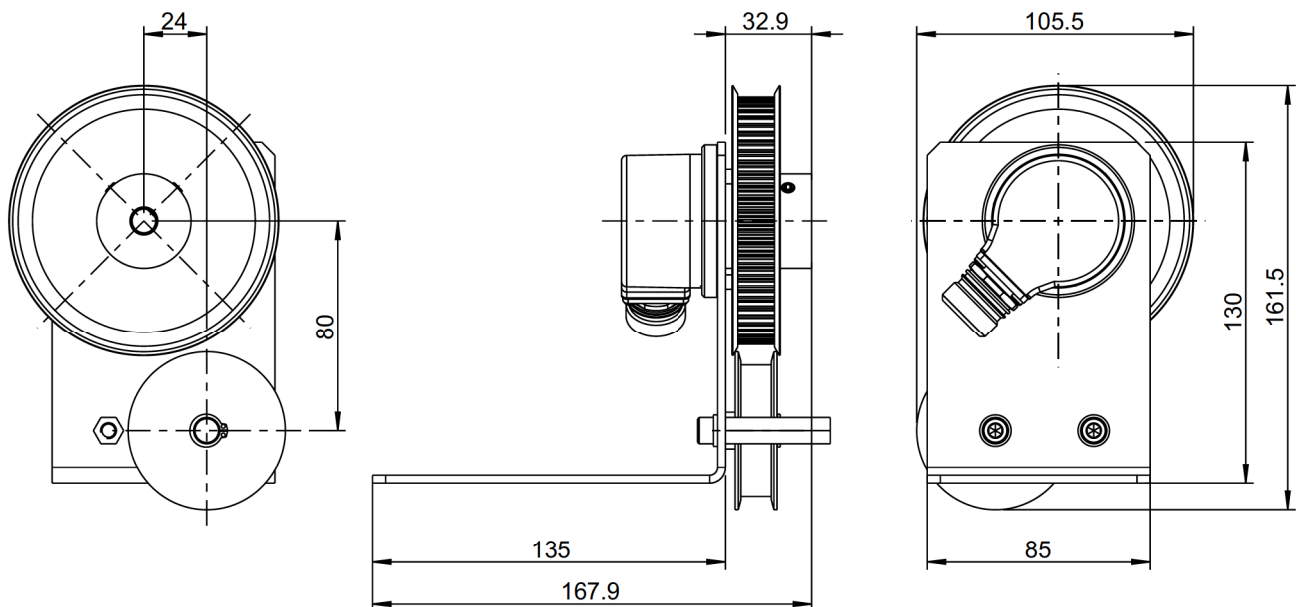
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### General technical data:

Resolution in the shaft	depends on the resolution of the encoder. (e.g. incremental encoder with 3000 PPR = 0.1 mm; Absolute encoder 12 x 12 Bit < 0.1 mm)
Elevator car speed	max. 1,2 m/sec
Max. height of elevator	28 m
Effective circumference of belt pulley	300 mm
Working temperature range:	-20°...+85°C

### Dimensions LM3:



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### Fixing kit



Fixing at the top

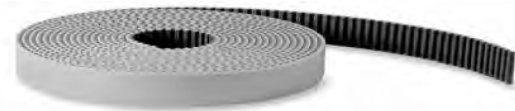


Fixing at the bottom

**Complete kit consists of:**  
C-Rails, 700 mm, bracket, screws and other small components

**Order code: 8.BLM2.01**

### Toothed belt



- Width 10 mm
- Polyurethane, with single parallel steel cords.
- Low belt-stretch
- High resistance to abrasive wear
- Resistant to the effects of UV radiation
- Maintenance-free
- Resistant to ageing
- Temperature range -10°C...+80°C

Calculation of the required length of toothed belt =  
Elevator height + approx. 5 m\*

\*depending on the distance between top and bottom fixing

**Order code:**

**05.ZAR1.XXX**

Length in metres  
Standard delivery lengths: 20 m, 25 m, 30 m, 35 m,  
40 m, 45 m, 50 m, 55 m, 60 m, 70 m, 80 m, 90 m,  
100 m und 120 m  
Other lengths on request