

Linear Measuring Technology

Measuring system for Shaft-copying

Measuring system for elevators

LM2, BLM2 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 benefits from separate bearing supports in the mounting fixture, so protecting the installed encoder from mechanical overloading. 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

Reliable:

- Rugged construction
- Reduced load on encoder bearings due to separate belt pulley-bearings
- Non-slip

Minimal noise generation:

- Smooth-running toothed belt
- Vibration-free operation

Encoder mounting fixture

Encoder mounting fixture with measuring wheels for fixing on the elevator car:



- Belt pulley with duplex bearings
- Tensioning rollers with belt guide
- Separation of bearing load and sensor technology ensure high level of protection for the installed encoder.
- Bracket with lateral reinforcement
- Smooth-running toothed-belt ensures extremely quiet operation

Complete encoder mounting fixture comprising:

- Encoder mounting fixture with mounted measuring wheel
- Belt guide
- Belt fixing and tensioning set
- Screws and other small components

Suitable encoders:

- Incremental encoder: 8.3620.24XX.XXXX

Calculation of pulse rate PPR =

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

- Absolute encoders:

- SSI: 8.F3683.33XX.XXXX.

- CANopen: 8.F3688.37XX.XXXX.

Order code: 8.LM2.01

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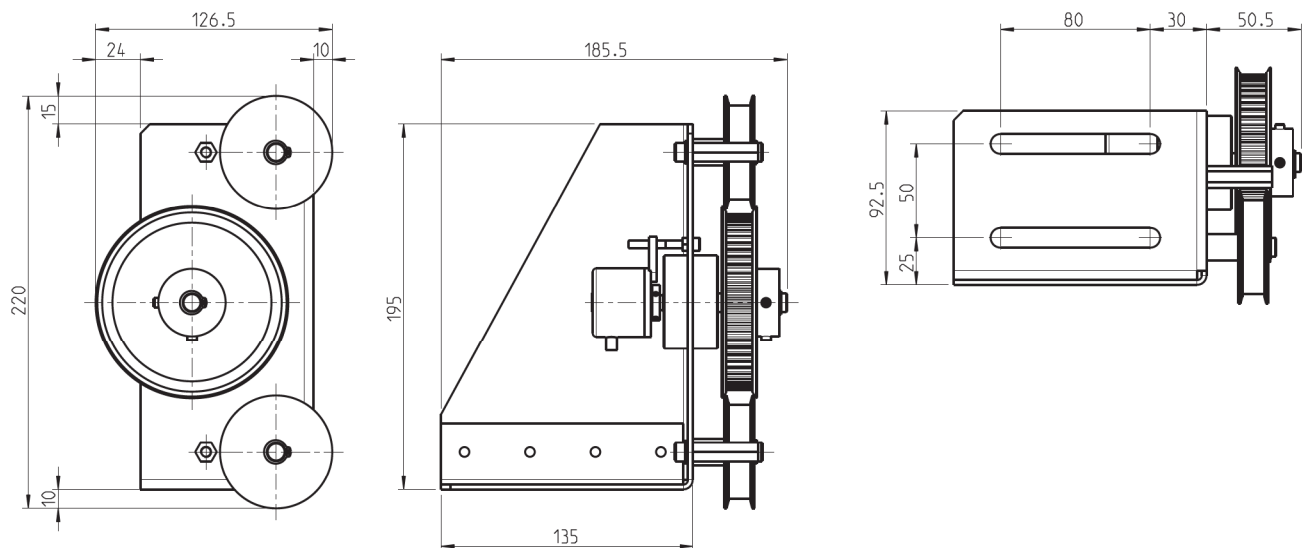
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General technical data:

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. 6 m/sec
Max. height of elevator	120 m
Effective circumference of belt pulley	300 mm

Dimensions LM2:



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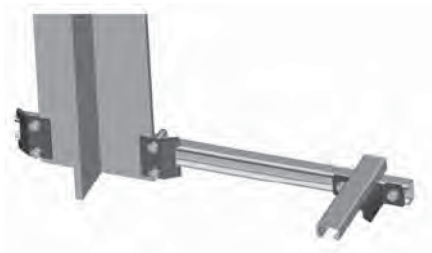
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Fixing kit



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