

Linear Measuring Technology

Measuring system for Shaft-copying

Measuring system for elevators

LM5, BLM1 and ZAR

Circumferential



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 circumferential system, an encoder mounting fixture with measuring wheel is located at both the top and the bottom of the elevator shaft. The encoder can be mounted either at the top or at the bottom as preferred.

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 in the elevator shaft:



- Belt pulley with duplex bearings
- Mounted hollow-shaft encoder
- Separation of bearing load and sensor technology ensures high level of protection for the installed encoder.
- Smooth-running toothed-belt ensures extremely quiet operation

Complete encoder mounting fixture comprising:

- 2 x Encoder mounting fixture with mounted measuring wheels
- Belt guide
- Follower bracket set for toothed belt
- 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.LM5.01

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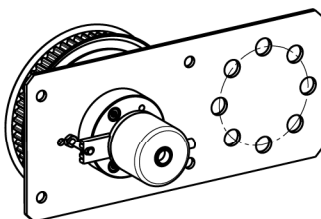
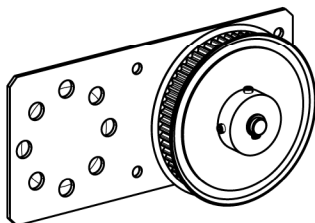
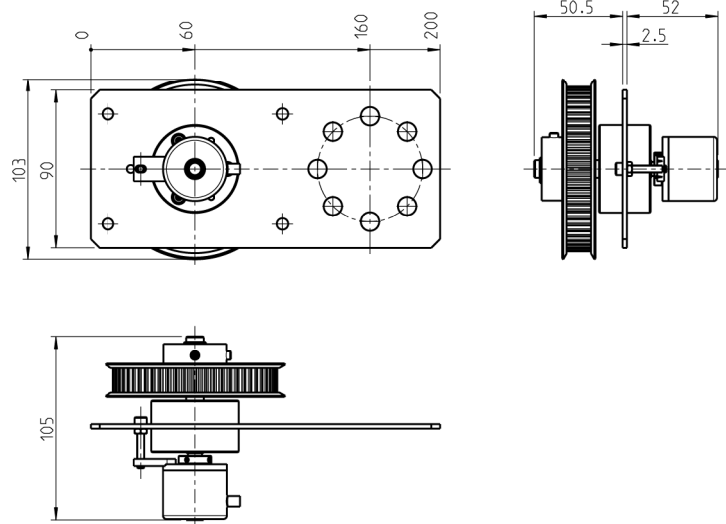
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General technical data:

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. 5 m/sec
Max. height of elevator	120 m
Effective circumference of belt pulley	300 mm
Working temperature range	-20°...+85°C

Dimensions LM5:



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Fixing kit

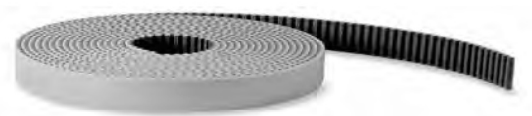


Complete kit consists of:

- 2 x C-Rails, 700 mm long
- 4 x carrier clamps

Order code: 8.BLM5.01

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