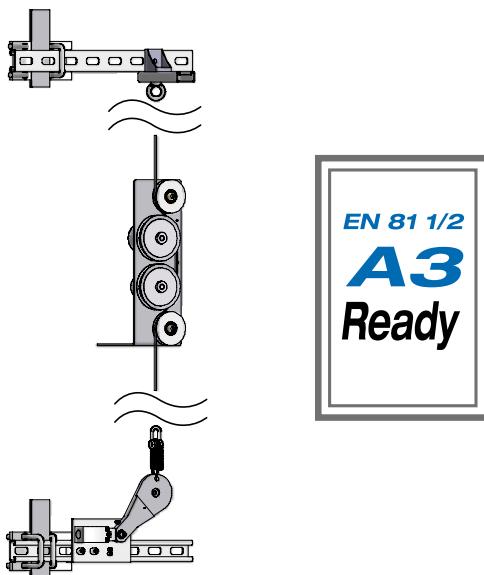


System - Guided belt measuring system Silent Move twin WDGMSMZR

For heights up to 120 metres (approx. 400 ft)



- Quiet and non-slip digital shaft copying for universal mounting on a lift cabin
- Use up to speeds of 4 m/s (800 ft/min).
- Particularly quiet and smooth-running, thanks to special belts and low-noise suspension.
- Redundant system with 2 encoders
- Free choice of encoder combinations (absolute/incremental)
- Belt monitoring system with safety switch
- Accuracy in the shaft:
 - Incremental encoder WDGI58B
up to 0.05 mm/pulse (0.002 inch/pulse) at 5,000 pulses/rev.
 - Absolute encoder WDGA58B multiturn, with CANopen LIFT interface: 8,192 steps/turn (13 bit) and 4,096 (12 bit multiturn) turns or SSI interface: 8,192 (13 bit) steps/turn and 4,096 (12 bit multiturn) turns
- Pre-assembled for fast and flexible installation with complete set of mechanical parts
- Ready for EN 81 1/2 A3

www.wachendorff-automation.com/wdgmsmzr

The quiet **Silent Move twin** belt shaft copying devices are systems which are installed quickly and easily in the shaft. All installation components required for standard installation to the lift cab rail or on the wall are supplied. Complying with the EN 81 1/2 A3 thanks to the design with encoder redundancy and belt monitoring system with safety switch combined with an adequate safety unit.

Put together your own system for shaft copying, by selecting your encoders and specifying the length of the special belt. The following combinations are possible, from our standard product range:

- Incremental encoder + Incremental encoder
- Incremental encoder + Absolute encoder
- Absolute encoder + Absolute encoder

Please compare your choice with the requirements of the safety unit.



Incremental encoder
WDGI58B



Absolute encoder
WDGA58B

Incremental encoders WDGI:

Calculation of resolution in the shaft:

Effective circumference of pulley: 251 mm (9.88189 inch)

$$\text{Res. in mm (inch)} = \frac{251 \text{ mm (9.88189 inch)}}{\text{Pulse number of encoder (PPR)}}$$

$$\text{Res. in pulses/mm (inch)} = \frac{\text{Pulse number of encoder (PPR)}}{251 \text{ mm (9.88189 inch)}}$$

Calculation of the limit frequency:

$$f_g (\text{Hz}) = \frac{\text{Pulse number of encoder (PPR)} \times \text{max. speed (m/sec) (ft/sec)}}{0.251 \text{ m (0.82349 ft)}}$$

Calculation of the traverse path:

$$s (\text{m}) (\text{ft}) = \frac{\text{Pulses (l)}}{\text{Pulse number of encoder (PPR)}} \times 0.251 \text{ m (0.82349 ft)}$$

Absolute encoders WDGA:

Repeat precision with WDGA: +/- 0.14 mm (0.00551 inch)



Special belt for exceptionally quiet, non-slip measuring.

Ordering information - Guided belt measuring system Silent Move twin WDGMSMZR:

Description:	Order-No.:
The system contains: 2 belt pulleys, 2 tensioning rollers, encoder attachment, attachment of the belt in the shaft, tensioning device for the belt, unit for belt slack monitoring and corresponding assembly components, 2 encoders. Please order the encoders and the special belt separately. (see below: Silent Move special belt, calculation of length)	
Specify your system: Please first select your combination: WDGMSMZR-II: Incremental encoder WDGI + Incremental encoder WDGI WDGMSMZR-AI: Absolute encoder WDGA + Incremental encoder WDGI WDGMSMZR-AA: Absolute encoder WDGA + Absolute encoder WDGA	WDGMSMZR-II WDGMSMZR-AI WDGMSMZR-AA
Find your encoder: With the aid of the calculation forms for limit frequency and resolution in the shaft and the data sheets Incremental encoder: WDGI58B www.wachendorff-automation.com/wdgi58b Absolute encoder: WDGA58B SSI www.wachendorff-automation.com/wdga58bssi Absolute encoder: WDGA58B CANopen Lift www.wachendorff-automation.com/wdga58bcanlift All variants defined except optional shaft sealed to IP67.	WDGMSMZR-XX with WDGA58B-XX-XX-XX-XX-X-X-X-X-XXX WDGI58B-10-XXX-XXX-XXX-XXX
Example system: System -> order number: <i>WDGMSMZR-AI</i> (example order number) Encoder type 1 -> order number: <i>WDGA58B-10-12-18-SI-AB-01-L3</i> (example order number) Encoder type 2 -> order number: <i>WDGI58B-10-4096-ABN-245-K3</i> (example order number)	
Silent Move twin special tooth belt: Calculation of the length: Transport height + 5 m (extend accordingly for transition points) 20 m 35 m 50 m 60 m 80 m 350 m-drum Special tooth belt (XXX = figures in metres)	WDGZR020 WDGZR035 WDGZR050 WDGZR060 WDGZR080 WDGZR350 WDGZRXXX
Example system with incremental encoder WDGI + absolute encoder WDGA SSI Encoder type 1 absolute with SSI WDGA 58B-10-13-12-SI-AG-01-CC8 For an accuracy of measurement of 0.03 mm (0.0012 inch) or 32.6 steps/mm (829 steps/inch). Gray Code (G): 8.192 (13 Bit) steps/revolution and 4.096 (12 Bit) revolutions. Power supply 10 VDC up to 30 VDC, interface SSI, sensor connector 8-pin. radial.	WDGMSMZR-AI WDGA58B 10-13-12-SI-AG-01-CC8
Encoder type 2 incremental WDGI 58B-10-1024-ABN-R24-SC8: Shaft: Ø 10 mm, pulse number: 1024 PPR, channels AB and zero pulse, power supply 10 VDC up to 30 VDC, channels push-pull, sensor connector 8-pin radial, for an accuracy of measurement of 0.25 mm (9.88189 inch) or 4 pulses/mm (103,6 pulses/inch) with a limit frequency of 16.3 kHz and a cab speed of 4 m/s (787.4 ft/min).	WDGI58B-10-1024-ABN-R24-SC8
Female connectors, cable with female connectors and bus cable are not included in the system please order separately. Accessories can be found at: www.wachendorff-automation.com/acc	