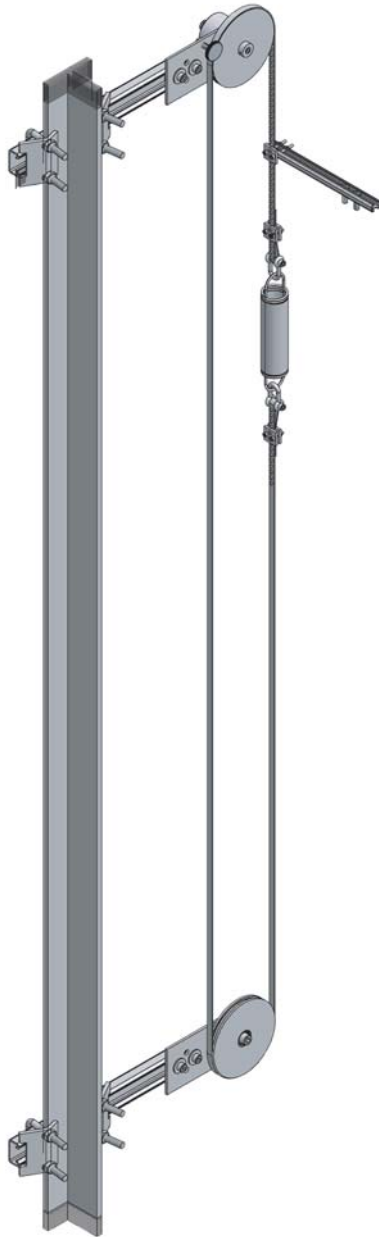


## Circumferential belt measuring system WDGMSUN Silent Move

For heights up to 70 metres



- Quiet and non-slip digital shaft copying for universal mounting on a lift cabin
- Use up to speeds of 4 m/sec.
- Particularly quiet and smooth-running, thanks to special belts and low-noise suspension.
- User-friendly, reliable alternative to switches and sensors.
- Accuracy in the shaft:
  - Incremental encoder WDG up to 0.08 mm/pulse, at 5000 pulses
  - Absolute encoder WDG multiturn, with 8192 steps/turn 13 Bit (25 Bit Multiturn) and 4096 turns 12 Bit, with CANopen or SSI interface.
- Fast and flexible installation with complete set of mechanical parts.

[www.wachendorff-automation.com/silent-move](http://www.wachendorff-automation.com/silent-move)

### Noticeably quieter in a noise comparison\*:

Conventional System: 92 db

Silent Move: 68 db

\*measured directly at the idler pulley at 4 m/sec.

The quiet **Silent Move** 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.



Put together your own system for shaft copying, by selecting an encoder and specifying the length of the special belt.



Incremental encoder  
WDG58B



Absolute encoder  
WDGSL00G



Self-guiding special belt for exceptionally quiet, non-slip measuring with noise-reducing wheel.

**Calculation of the limit frequency:**

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

Example:  
 $f_g \text{ (Hz)} = \frac{2500 \text{ PPR} \times 1.6 \text{ m/sec.}}{0.4 \text{ m}} = 10000 \text{ Hz}$

**Calculation of resolution in the lifting hole:**

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

Example:  
 $\text{Res. in pulses/mm} = \frac{2500 \text{ PPR}}{400 \text{ mm}} = 6.25 \text{ p/mm} \hat{=} 0.16 \text{ mm}$

**Ordering information - Circumferential belt measuring system WDGMSUN:**

Description:	Order No.:
<p><b>Incremental variants</b></p> <p><b>System (without encoder):</b>            2 guide pulleys, encoder attachment, tensioning device for the belt and corresponding assembly components.            Please order the special belt separately.            (see below: Silent Move special belt, calculation of length)</p>	WDGMSUN
<p><b>System with incremental encoder WDG 58B600ABNG24SC8 and 15 m cable (KI 8-67-15S):</b>            For a accuracy of measurement of 0.66666 mm or 1.5 pulses per mm with a limit frequency of 6000 Hz and a cab speed of 4 m/s.            Encoder type 58B600ABNH24SC8: Pulse number: 600 PPR, channels AB and zero pulse, power supply 10 VDC up to 30 VDC, channels push-pull, sensor connector 8-pol. radial, 15 m cable (KI 8-67-15 S)</p>	WDGMSUN58B600ABNH24SC8
<p><b>System with incremental encoder 58B1000ABNG24SC8 and 15 m cable (KI 8-67-15 S):</b>            For a accuracy of measurement of 0.4 mm or 2.5 pulses per mm with a limit frequency of 10000 Hz and a cab speed of 4 m/s.            Encoder type 58B1000ABNH24SC8: Pulse number: 1000 PPR, channels AB and zero pulse, power supply 10 VDC up to 30 VDC, channels push-pull, sensor connector 8-pol. radial, 15 m cable (KI 8-67-15 S)</p>	WDGMSUN58B1000ABNH24SC8
<p><b>System with incremental encoder 58B2500ABNG24SC8 and 15 m cable (KI 8-67-15 S):</b>            For a accuracy of measurement of 0.16 mm or 6.25 pulses per mm with a limit frequency of 25000 Hz and a cab speed of 4 m/s.            Encoder type 58B2500ABNH24SC8: Pulse number: 2500 PPR, channels AB and zero pulse, power supply 10 VDC up to 30 VDC, channels push-pull, sensor connector 8-pol. radial, 15 m cable (KI 8-67-15 S)</p>	WDGMSUN58B2500ABNH24SC8
<p><b>Define your incrementalen encoder:</b>            With the aid of the calculation forms for limit frequency and resolution in the shaft and the data sheet WDG58B. All variants defined except optional shaft sealed to IP67.</p>	WDGMSUN58BXXXXYYZZSC8
<p><b>Absolute variants</b></p> <p><b>System with absolute multiturn encoder with synchronous serial interface SSI*:</b>            For a accuracy of measurement of 0.048828125 mm or 20.48 Steps/mm.            * Gray Code: 8192 (13 Bit) Steps/revolution and 4096 (12 Bit) revolutions.            Power supply 10 VDC up to 30 VDC, 12 pin connector, 15 m cable (KD-12-67-15-SSI)</p>	WDGMSUNSL00G1213C100PRL
<p><b>System with absolute multiturn encoder with CANOpen DS 406 interface:</b>            For a accuracy of measurement of 0.048828125 mm or 20.48 Steps/mm.            ** Binary Code: 8192 (13 Bit) Steps/revolution and max. 4096 (12 Bit) revolutions.            Power supply 10 VDC up to 30 VDC, 9 pin D-SUB connector, 10 m cable (KD-09-20-15-S)</p>	WDGMSUNCAB1B1213C100PA9
<p>Comprehensive technical information on absolute encoder types is given in the data sheets on the encoder "WDG absolute" at our homepage <a href="http://www.wachendorff-automation.com/optical">www.wachendorff-automation.com/optical</a></p>	
<p><b>Silent Move special belt:</b>            Calculation of the length: Transport height x 2 + 10 m (extend accordingly for transition points)</p> <p>20 m            35 m            50 m            60 m            80 m            200 m-drum            500 m-drum            Special belt (XXX = figures in metres)</p>	WDGNR020 WDGNR035 WDGNR050 WDGNR060 WDGNR080 WDGNR200 WDGNR500 WDGNRXXX