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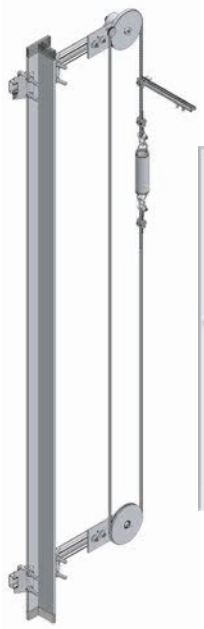
System - Circumferential belt measuring system Silent Move WDGMSUN

For heights up to 70 metres (230 ft)



- Measuring set for easy installing the belt on existing brackets in the elevator shaft.
- 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.
- User-friendly, reliable alternative to switches and sensors.
- Accuracy in the shaft:
  - Incremental encoder WDGI58B
    up to 0.08 mm/pulse (0.0031496 inch/pulse) at 5000 pulses
  - Absolute encoder WDGA58B multiturn, with
    CANopen interface: 4,096 steps/turn
    and 262,144 (18 bit multiturn) turns,
    CANopen LIFT interface: 4,096 steps/turn
    and 262,144 (18 bit multiturn) turns or
    SSI interface: 4,096 (12 bit) steps/turn and
    8,192 (13 bit multiturn) turns
- Quick and easy mounting with our complete belt fixing and tensioning set.

www.wachendorff-automation.com/silent-move

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.

Noticeably quieter in a noise comparison*:
Conventional System: 92 db
Silent Move: 68 db

*measured directly at the idler pulley at 4 m/sec (800 ft/min).

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

Encoder WDGI58B/WDGA58B

Incremental encoders WDGI:

Calculation of resolution in the shaft:
Effective circumfrerence of pulley: 401.11 mm (15.7917322835 inch)

$$\text{Res. in mm (inch)} = \frac{\text{401.11 mm (15.7917322835 inch)}}{\text{Pulse number of encoder (PPR)}}$$

$$\text{Res. in pulses/mm (inch)} = \frac{\text{Pulse number of encoder (PPR)}}{\text{401.11 mm (15.7917322835 inch)}}$$

Calculation of the limit frequency:

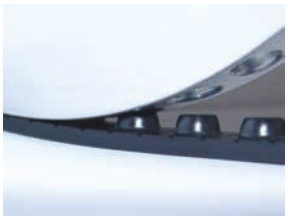
$$\text{fg (Hz)} = \frac{\text{Pulse number of encoder (PPR) x max. speed (m/sec) (ft/sec)}}{\text{0.40111 m (1.3153999 ft)}}$$

Calculation of the traverse path:

$$\text{s (m) (ft)} = \frac{\text{Pulses (I)}}{\text{Pulse number of encoder (PPR)}} \text{ x 0.40111 m (1.3153999 ft)}$$

Absolute encoders WDGA:

Repeat precision with WDGA: +/- 0.223 mm (0.00877951 inch)



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

Ordering information - Circumferential belt measuring system WDGMSUN:

Description:	Order No.:
Incremental variants	
System (without encoder): 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)	WDGMSUN
System with incremental encoder WDGI 58B101000ABNM35SC8 and 15 m cable (KI 8-67-15S): For an accuracy of measurement of 0.4 mm(0.02 inch) or 2.5 pulses/mm (63.324 pulses/inch) with a limit frequency of 9.972 kHz and a cab speed of 4 m/s (787.4 ft/min). Encoder type 58B101000ABNM35SC8: Shaft: Ø 10 mm, pulse number: 1,000 PPR, channels AB and zero pulse + inv. signals, power supply 4.75 VDC up to 30 VDC, channels push-pull, sensor connector 8-pol. radial, 15 m cable (KI 8-67-15 S)	WDGMSUN01000ABNM35SC8
System with incremental encoder 58B1025000ABNP24SC8 and 15 m cable (KI 8-67-15 S): For an accuracy of measurement of 0.016 mm (0.001 inch) or 62.3 pulses/mm (1583.1 pulses/inch) with a limit frequency of 249.3 kHz and a cab speed of 4 m/s (787.4 ft/min). Encoder type 58B1025000ABNP24SC8: Shaft: Ø 10 mm, pulse number: 2,5000 PPR, channels AB and zero pulse + inv. signals, power supply 10 VDC up to 30 VDC, channels push-pull, sensor connector 8-pol. radial, 15 m cable (KI 8-67-15 S)	WDGMSUN25000ABNP24SC8
Find your incrementalen encoder: With the aid of the calculation forms for limit frequency and resolution in the shaft and the data sheet WDGI58B Supply 4.75 VDC to 30 VDC at www.wachendorff-automation.com/wdgi58bm WDGI58B supply 10 VDC to 30 VDC at www.wachendorff-automation.com/wdgi58b All variants defined except optional shaft sealed to IP67.	WDGMSUNXXXXXYYYZZZSC8
Absolute variants WDGA58B CANopen, CANopen LIFT or WDGA58B SSI	
System with absolute multiturn encoder with CANopen CiA 406 interface: For an accuracy of measurement of 0.0979 mm (0.0038 inch) or 10.21 steps/mm (259.38 steps/inch). Binary Code: 4,096 (12 bit) steps/revolution and max. 262,144 (18 bit) revolutions. Power supply 10 VDC up to 30 VDC, 5 pin. connector, radial, 10 m bus line connector and female connector, T-junction, termination resistor.	WDGMSUN1218COAB00CC5
System with absolute multiturn encoder with CANopen LIFT CiA 417 interface: For an accuracy of measurement of 0.0979 mm (0.0038 inch) or 10.37 steps/mm (259.38 steps/inch), configurable. Binary Code: 4,096 (12 bit) steps/revolution and max. 262,144 (18 bit) revolutions, configurable. Power supply 10 VDC up to 30 VDC, 5 pin. connector, radial 10 m bus line connector and female connector, T-junction, termination resistor.	WDGMSUN1218CLAB00CC5
System with absolute multiturn encoder with synchronous serial interface SSI*: For an accuracy of measurement of 0.0979 mm (0.0038 inch) or 10.21 steps/mm (259.38 steps/inch). * Gray Code (G)/Binary Code (B): 4,096 (12 bit) steps/revolution and 8,192 (13 bit) revolutions. Power supply 10 VDC up to 30 VDC, 8 pin connector, radial, 10 m cable	WDGMSUN1218SIAX01CC8 X = G or B
Comprehensive technical information on WDGA 58B CANopen / WDGA 58B CANopen LIFT / WDGA 58B SSI - www.wachendorff-automation.com/wdga58bcan /wdga58bcanlift /wdga58bssi	
Silent Move special belt:	
Calculation of the length: Transport height x 2 + 10 m (extend accordingly for transition points)	
20 m	WDGNR020
35 m	WDGNR035
50 m	WDGNR050
60 m	WDGNR060
80 m	WDGNR080
200 m-drum	WDGNR200
500 m-drum	WDGNR500
Special nubbed belt (XXX = figures in metres)	WDGNRXXX
Customs tariff number: 90318020 **Country of origin:** Germany	