



WACHENDORFF

The Encoder Experts



Datasheet

Draw-wire system **SZG50**

www.wachendorff-automation.com/szg50

Wachendorff Automation

... systems and encoders

- Complete systems
- Industrial rugged encoders to suit your application
- Standard range and customer versions
- Maximum permissible loads
- 48-hour express production
- Made in Germany
- Worldwide distributor network

Draw-wire system SZG50



- Compact design
- Simple, quick and flexible installation
- High operational reliability
- Long service life

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Customs tariff number: 90318020
Country of origin: Germany

Mechanical Data

Measurement range [mm]	Extraction force		Acceleration
	F_{min} [N]	F_{max} [N]	a_{max} [m/s ²]
2400	1.0	8.0	49.05

Technical data SZG50

Measurement range	[mm]	2400
Linearity	[%]	±0.1
Mean distance per rotation	[mm]	150.75
Temperature range	[°C]	-20 °C up to +80 °C (observe max. encoder temperature)
Weight	[g]	290 (without encoder)
Material Housing		Glass fibre reinforced plastic (PBT GF20)
Material measuring wire		Stainless steel coated with polyamide (Ø 0.45 mm)
Encoder requirements		shaft: Ø 6 mm, synchro flange: Ø 58 mm, shaft length: 10 mm (Option AIX)
Order No.: (without encoder)		SZG500240UZVK

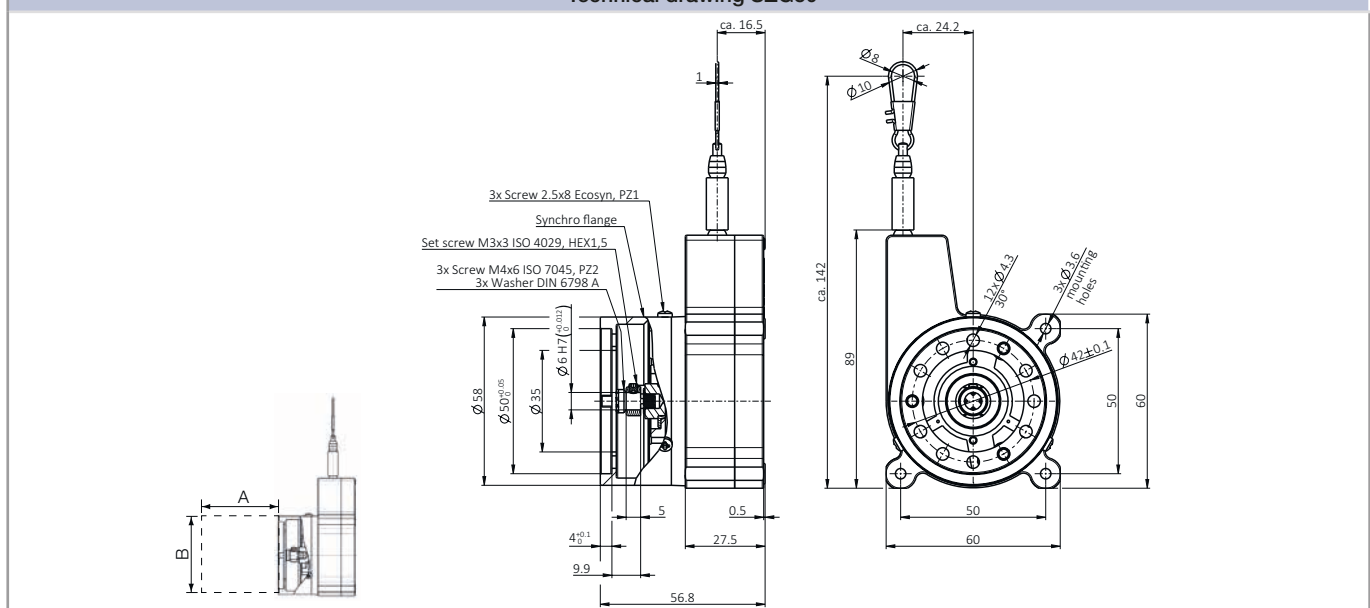
Example Order No.: incremental

Type	Wire length	Pulses	Channels	Output circuit	Connection
SZG50	0240	02500	AB	R24	SB8

Example Order No.: absolute

Type	Wire length	Single-turn	Multi-turn	Interface	Software	Code	Power supply	galv. isolation	Connection
SZG50	0240	14	18	CO	A	B	0	0	CC5

Technical drawing SZG50



A, B = For dimensions please refer to the data sheet of the encoder used.

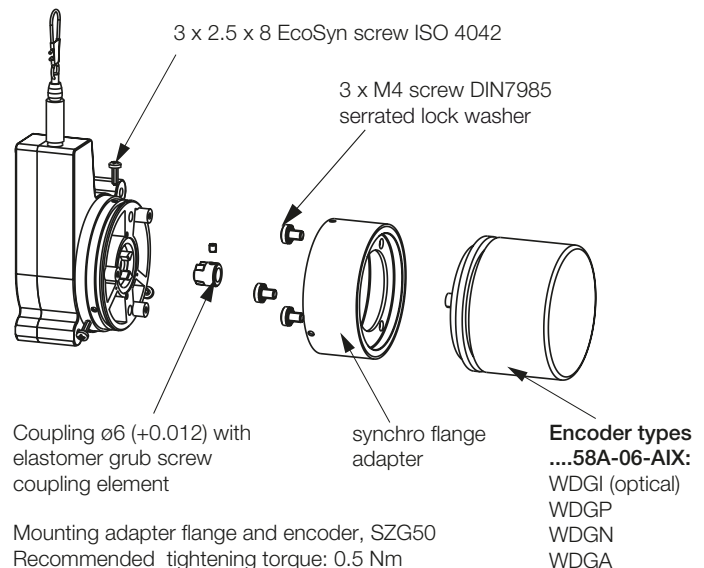
WARNING NOTICES

- Don't let the rope snap back. If the rope is retracted freely, this may lead to injuries (whiplash effect) and the device may be damaged. Caution when unhooking and retracting the rope into the sensor.
- Never exceed the specified measurement range when extracting the rope!
- Do not touch the rope when operating the sensor.
- Avoid guiding the rope over edges or corners.
Use a deflection pulley instead.
- Do not operate the sensor if the rope is buckled or damaged.
A ripping of the rope may lead to injuries or a damaging of the sensor.
- Do not oil or grease the entire wire pull system.
- Do not pull the measuring wire at an angle.
- Attach the measuring cable retracted to the object to be measured.
- Do not try to open the device. The stored energy of the spring drive may lead to injuries when being mishandled.
- A tensioned measuring cable can lead to injuries in the area where operating personnel are present.
- Do not damage the measuring wire.
- Draw-wire displacement sensors are used for displacement and displacement measurement or position detection of components or moving machine components.
- The sensor may only be operated within the values specified in the technical data.
- The sensor must be used in such a way that no persons are endangered or machines and other material goods are damaged in the event of malfunction or total failure of the sensor.

<p>Montage nur qualifiziertes Personal, Personal, Assembly only qualified personnel, Montage par Assemblée qualifié personnel, Montaggio solo personale qualificato, Montaje solamente personal cualificado.</p> <p>Sicherheitsmassnahmen/Safety instructions: Einsatz nur in Industrieumgebung und NICHT im sicherheitsrelevanten Bereich. Only for use in industrial environments and NOT for safety-relevant areas. Utilisation uniquement dans un environnement industriel et PAS dans un domaine lié à la sécurité. Utilízelo sólo en entornos industriales y NO en áreas relevantes para la seguridad. Utilizzare solo in ambienti industriali e NON in aree riguardanti la sicurezza.</p>	
<p>Power supply: Class 2 only</p>	

SZG50 Encoder mounting

- Fix the coupling half to the encoder shaft.
- Mount the flange to the encoder.
- Mount the encoder/flange group to the mechanics of the cable wire system.
- Ensure that the measuring cable is always tensioned by the spring motor, to prevent the measuring cable from jumping off the cable drum.
- The encoder shaft must not be rotated during installation. Observe the relevant encoder mounting instructions.
- Suitable for mounting are all WDGI- (opt.) / WDGP- / WDGN- or WDGA-**58A-06-AIX** encoder.



Mounting draw-wire system

- Mounting through mounting holes for 3x M3 screws.
- We do not prescribe any particular sensor orientation
- Select the installation position in such a way that damage to and contamination of the measuring cable is prevented.
- If possible, favour an installation position with the measuring cable outlet facing downwards.
This prevents liquids from penetrating the measuring cable outlet.
- Do not twist the measuring cable!
- Only pull out the measuring cable when the sensor is fitted.
- Attach the measuring cable to the measurement object using an eyelet.
- If the measuring cable cannot be guided vertically out of the housing, a deflection pulley must be used.
- Guide the measuring cable in a protected area so that it cannot get caught or damaged.

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Authorized Distributor

For further information please contact our local distributor.
Here you find a list of our distributors worldwide.

<https://www.wachendorff-automation.com/contact-sales-en/>

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