WACHENDORFF
Automation GmbH & Co. KG

Datasheet

Draw-wire system SZG95

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... 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

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Rugged draw-wire system SZG95

- Ball bearing drill protection
- Measuring rope (stainless steel)
- Bushing
- Quick and easy mounting

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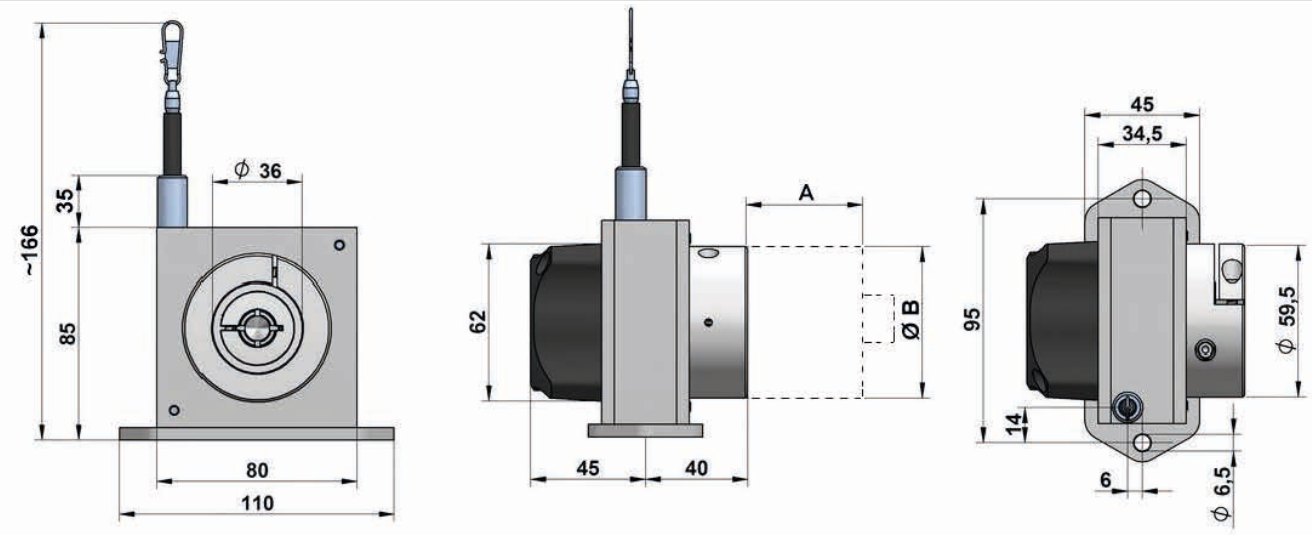
Mechanical Data				
Measurement range	Extraction force		Speed	Acceleration
[mm]	F_{min} [N]	F_{max} [N]	V_{max} [m/s]	a_{max} [m/s²]
3000	5.0	6.4	8	120

Technical data SZG95		
Measurement range	[mm]	3000
Linearity	[%]	0.05 (encoder output)
Disc circumference	[mm]	200
Temperature range	[°C]	-20 °C up to +85 °C (observe max. encoder temperature)
Weight	[g]	700 to 900, depending on the measurement range
Housing		aluminium, anodised, spring case PA6
Encoder requirements		Shaft: Ø 10 mm, clamping flange: Ø 36 mm, shaft length: 20 mm
Order No.: without encoder		SZG950300U-ZVK

Example Order No.: incremental					
Type	Wire length	Pulses	Channels	Output circuit	Connection
SZG95	0300	02500	AB	R24	SB8

Example Order No.: absolute									
Type	Wire length	Single-turn	Multi-turn	Interface	Software	Code	Power supply	galv. isolation	Connection
SZG95	0300	12	18	CO	A	B	0	0	CB5

Technical drawing SZG95



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

SZG95 Encoder mounting

1.

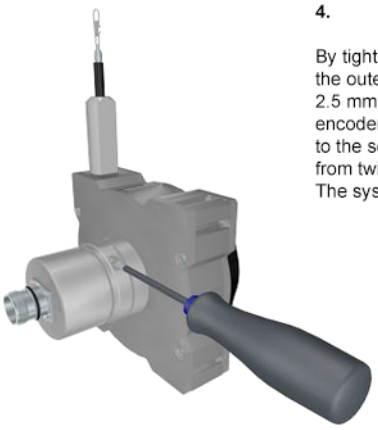
Please insert the encoder into the clamping flange.

2.

The encoder is now connected to the clamping flange.

3.

By tightening (approx. 2 Nm) the inner radial screw with a 2.5 mm hex wrench the encoder shaft will be clamped to the sensor mechanics and secured from twisting.



4.

By tightening (approx. 2 Nm) the outer radial screw with a 2.5 mm hex wrench the encoder housing will be clamped to the sensor housing and secured from twisting.
The system is now ready to be used.

Installation

- Mount the sensor at the designated place by using the fixing holes before extracting the rope and before attaching the rope to the measuring target.
- Open the rope clip after the sensor is fully mounted and extract the measuring rope. Hook the rope clip on the measuring object and close the bracket of the clip. For safety reasons put a screw driver trough the clip to extract the rope.
- Check the track of the measuring target on collision with the sensor housing and on exceeding the specified measurement range. When installing the sensor make sure that the rubber stopper does not touch the rope outlet.
- Connect the electronics according to the sensor type. When laying the cables be careful not to under-run the minimal allowed bending radius of the cable (5 x cable diameter).
- The rope must be extracted from the sensor vertically. The maximum variation from the vertical is 3°. Avoid carefully extracting the rope at an inclination, since the durability of the instrument would shorten considerably. If it is not possible to keep the limit of 3°, a deflection pulley has to be used.
- The measuring range begins after approximately 2 mm extracted rope (=zero point). The mechanical reserve at the end of the measuring range is about 20 mm.
- When mounting outdoors protect the sensor and the rope from icing at temperatures below 0 °C.
- Guide the rope preferably in corners or guarded in channels to prevent pollution or accidental touch.
- When operating the sensor, take care not to let the rope snap back by mistake or extract the rope over the specified measurement range, as this might destroy the sensor.
- Maintenance: These instruments are maintenance-free. If however, the rope is soiled due to adverse environmental conditions, it can be cleaned with a cloth drenched in resin-free machine oil.

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 try to open the device. The stored energy of the spring drive may lead to injuries when being mishandled.
- 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.

Note: All incremental WDGI58B or absolute WDGA58B encoders are suitable for mounting.

For further information please contact our local distributor.
Here you find a list of our distributors worldwide.
http://www.wachendorff-automation.com/distributors_worldwide.html

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