

Cable Systems SZG for rugged environments

- Robust cable systems
1,250 mm up to 40,000 mm
- Output: incremental
or absolute
- High precision mechanics
with high linearity
- Quick assembly



SSI
Synchronous Serial Interface

CANopen

PROFI
NET



Robust Cable Systems SZG

... precise length measurement from 1,250 mm up to 40,000 mm

In particular, when considering how to most safely and efficiently detect positions, speeds and travel lengths of (for example) crane booms, hydraulic cylinders or screw conveyors, etc., Wachendorff provides support with the help of matching cable systems.

In this process, the main requirements for such systems determine the solutions provided by Wachendorff:

1. Fast and flexible installation on the machine.
2. Robust design with high protection rating up to IP65.
3. Precise measurement through optimal cable guidance and constant cable tension across the entire measuring range.
4. High resolution and high degree of accuracy.
5. Flexible interfaces by incremental impulses or the major bus interfaces.

With the new Cable Systems SZG, Wachendorff meets these requirements perfectly. The system is installed quickly and easily. The space required is minimised through the compact design. The position of the cable outlet can be determined individually by the mounting bracket.

Thanks to the robust design of the cable system in conjunction with the incremental and absolute encoders from Wachendorff, the system can also be used in critical areas. For example, in port cranes or in transport systems in cold storage houses.

With the incremental encoders from the WDGI58B series or an absolute encoder WDGA58B, resolutions and interfaces can be implemented perfectly.

	SZG60	SZG95	SZG140	SZG165	
					
Measurement range [mm]	1250	3000	5000	8000	10000 20000 40000
Linearity [%]	±0.05 (independent of the measurement range)	0.05 (encoder output)	0.05 (encoder output)	0.05 (encoder output)	
Disc circumference [mm]	125	200	317,68	357,14	333,33
Max. Speed [m/s]	10	8	8	8	6 (10 m), 5 (20 m, 40 m)
Housing	Aluminium, anodised, spring case PA6				
Compatible encoders	predefined types (incremental, CAN, SSI)	all WDGI / WDGA 58B			
Resolution of absolute encoders [Steps/mm]	32,77 (12 bit)	1,28 (8 bit) 5,12 (10 bit) 20,48 (12 bit) 81,92 (14 bit) 327,68 (16 bit)	0,81 (8 bit) 3,22 (10 bit) 12,89 (12 bit) 51,57 (14 bit) 206,30 (16 bit)	0,72 (8 bit) 2,87 (10 bit) 11,47 (12 bit) 45,88 (14 bit) 183,50 (16 bit)	0,77 (8 bit) 3,07 (10 bit) 12,29 (12 bit) 49,15 (14 bit) 196,61 (16 bit)
Resolution of incremental encoders [pulses/mm]	4 (500 ppr) 10 (1250 ppr) 20 (2500 ppr)	5 (1000 ppr) 10 (2000 ppr) 25 (5000 ppr) 125 (25000 ppr)	3,15 (1000 ppr) 6,30 (2000 ppr) 15,74 (5000 ppr) 78,70 (25000 ppr)	2,80 (1000 ppr) 5,60 (2000 ppr) 14,00 (5000 ppr) 70,00 (25000 ppr)	3,00 (1000 ppr) 6,00 (2000 ppr) 15,00 (5000 ppr) 75,00 (25000 ppr)
Operating temperature	-20 °C up to +85 °C	-20 °C up to +85 °C *			
wachendorff-automation.com	/szg60	/szg95	/szg140	/szg165	

* = (observe max. encoder temperature)