

Draw-wire system SZG65 - WDGA SSI



- Exceptionally rugged length sensor
- Measuring range: 0 - 1250 mm
- Interface: SSI
- IP65 absolute encoder WDGA SSI ready-mounted

www.wachendorff-automation.com/szg65wdgassi

The draw-wire encoder SZG65 WDGA SSI was developed for use in harsh environments. The various methods of installation mean high flexibility. It can be used even where space is tight, thanks to its compact dimensions. The SZG65 WDGA SSI can be mounted quickly and with its highly precise mechanics provides reliable accurate length measurement, with all advantages, which result from an absolute length measurement. e. g. The position-value is saved, if supply breaks down and is available immediately if supply gets recovered. Doing a reference run isn't necessary. The intelligent spring-suspension and the nylon-coated stainless-steel wire cable guarantee long-service life, even in difficult operating conditions. The encoder is already installed.

Typical areas of application include:

lift/elevators, lifting platforms, theatre stages, fork lifts and cranes.

Measurement ranges: 0 mm up to 1.250 mm,

Resolution measurement ranges:

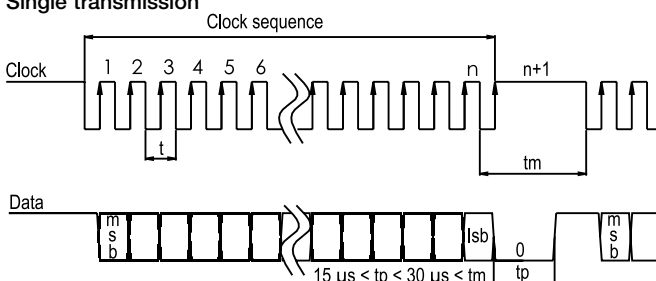
Position per mm	Bit per revolution
2.5	8
5.1	9
10.2	10
20.4	11
40.9	12

Deviation: Less than 0.02 % of the final value.
Measuring wire: 0.48 mm of thick nylon coated high-grade steel wire. (incl. coating)
Wire connection: eye, see drawing
max. wire speed: 7.5 m/sec.
Pull out strength: approx. 0.14 kg
System-unit housing: anodised aluminium/ steel case chrome-plated
Weight: SZG incl. encoder max. 1 kg
Life expectancy: at least 10 million cycles
Operating temperature: -20 °C up to +70 °C
Storage temperature: -30 °C up to +80 °C

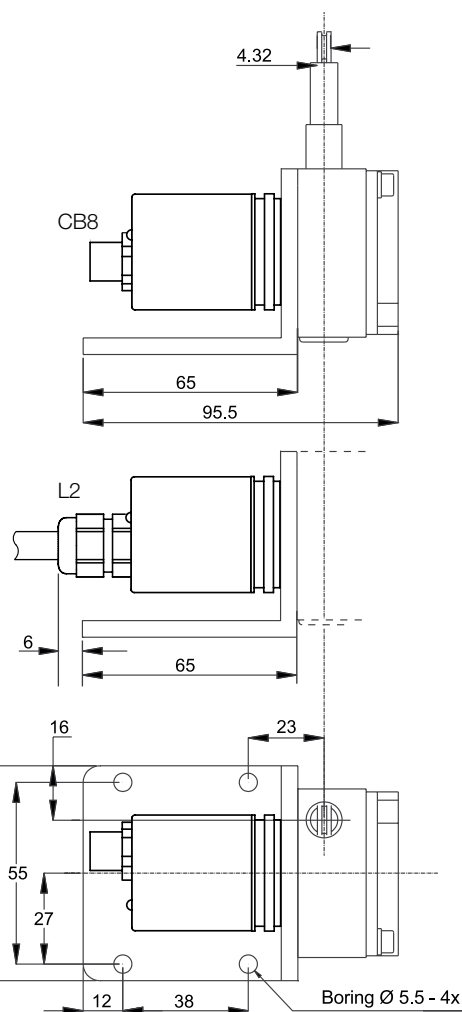
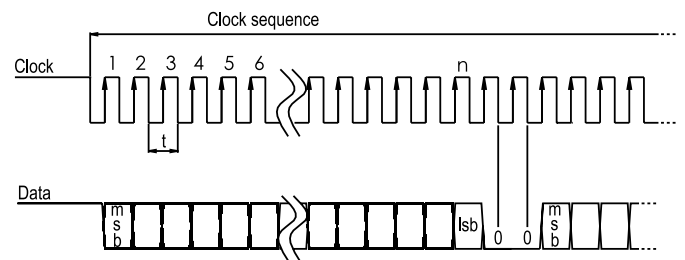
Interface SSI
Clock input: via opto-coupler
Clock frequency: 100 kHz up to 500 kHz up to 2 MHz on request
Data output: RS485/RS422 compatible
Output code: gray or binary
SSI output: Angular-/position value
Parity bit: optional (even/odd)
Error bit: optional
Turn on time: <1.5 s
Position direction: DIR = +Ub ⇒ position configuration ~ length
Set to zero: Set: Preset = apply +Ub for 2 s
Deactivate: Preset = GND

Electrical Data:
Supply voltage: 10 VDC up to 30 VDC;
4.75 VDC up to 5.5 VDC
max. 80 mA
Power consumption: max. 0.8 W

Protocol SSI: Single transmission



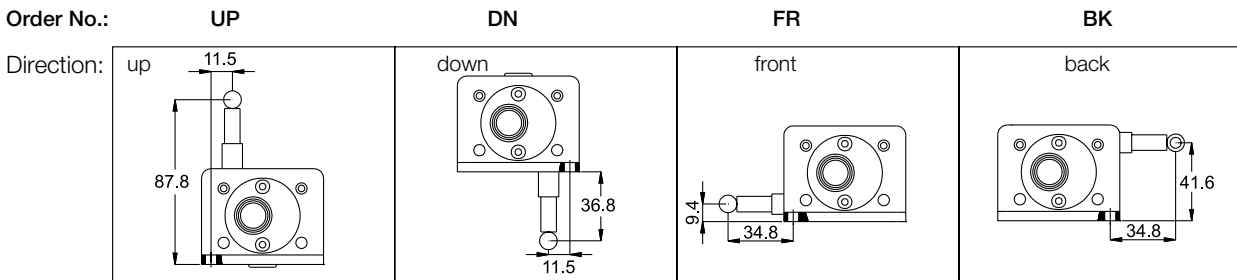
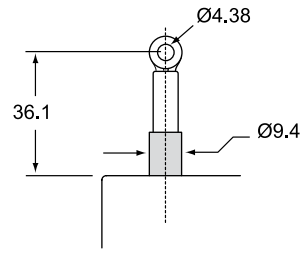
Multipath transmission



All details in mm and dependent on the encoder configuration.

Connection configuration for encoder WDGA SSI:

Connection / cable	M12 x1	cable outlet
Description	CB8 axial, 8-pin	L2, axial
GND	1	wh
Plus U+	2	bn
SSI CLK+	3	gn
SSI CLK-	4	ye
SSI DATA+	5	gy
SSI DATA-	6	pk
PRESET	7	bu
DIR	8	rd
Shield	housing	housing K1 n. c.



Ordering information:

Measurement range:
1250 = 1.250 mm

Measurement wire:
N = 0.48 mm of thick nylon coated high-grade steel wire

Mounting direction:
UP = Wire exit up
DN = Wire exit down
FR = Wire exit front
BK = Wire exit back

Singleturn resolution in bit per revolution
(1250 mm measurement ranges)
8 => 8 bit (= approx. 2.5 position/mm)
9 => 9 bit (= approx. 5.1 position/mm)
10 => 10 bit (= approx. 10.2 position/mm)
11 => 11 bit (= approx. 20.4 position/mm)
12 => 12 bit (= approx. 40.9 position/mm)

Multiturn resolution
18 (example) = 6 bit up to 24 bit

Interface
SI = SSI

Software:
A = up to date release

Code
B = binary
G = gray

Power supply
0 = 10 V up to 30 V
1 = 4,75 V up to 5,5 V

Galvanic isolation
1 = yes

Connection
CB8 = connector, axial, 8-pin
L2 = cable, IP65, 2 m, shield connected to encoder housing

Your system SZG65 N 18 SI A 1