

## Draw-wire system SZG122



- 0 - 1000 cm to 0 - 4300 cm
- Exceptionally rugged length sensor
- Measuring range
- Output: incremental signals
- IP65 encoder ready-mounted

[www.wachendorff.de/szg122-engl](http://www.wachendorff.de/szg122-engl)

The draw-wire encoder SZG 122 was developed for use in harsh environments. With its 4 different lengths, it can be put into service very economically. The various methods of installation mean high flexibility. It can be used even where space is tight, thanks to its compact dimensions.

The SZG 122 can be mounted quickly and with its highly precise mechanics provides reliable accurate length measurement. The intelligent spring-suspension and the nylon-coated stainless-steel wire cable guarantee long-service life, even in difficult operating conditions.

The mechanics have been perfectly matched to the encoder model WDG58A. The encoder is already installed.

### Typical areas of application include:

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

### Measurement ranges:

0 - 1.000 cm, 0 - 1.500 cm, 0 - 2.000 cm, 0 - 2.500 cm,  
0 - 3.000 cm, 0 - 3.800 cm and 0 - 4.300 cm

### Resolution Measurement ranges:

WDG 58A with 1000 I/U = Resolution: 3,23 pulses/mm  
2000 I/U = Resolution: 6,46 pulses/mm  
5000 I/U = Resolution: 16,13 pulses/mm

### Electrical Output:

2 channels (AB) are shifted by 90°. Pulses 10 - 30 Volt, push-pull,  
40 mA and zero pulse per rotation = G24  
2 channels (AB) are shifted by 90°. Pulses 4,75 - 5,5 Volt, push-pull,  
40 mA and zero pulse per rotation + inverted signals = I05

**Deviation:** Less than 0.02% of the final value.

### Measuring wire:

0.86 mm of thick nylon coated high-grade steel wire.

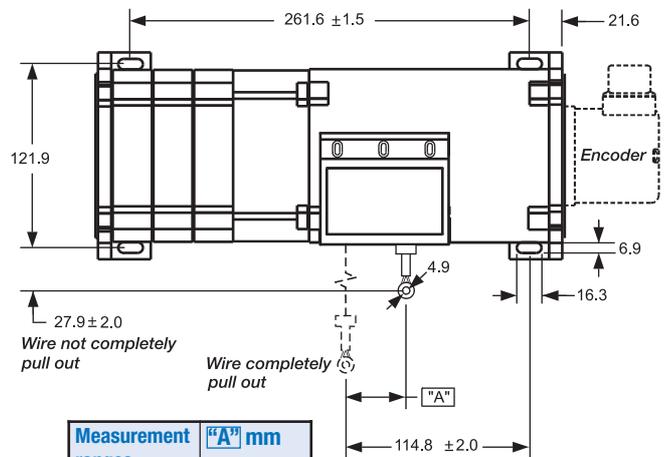
Wire connection: eye  
max. Wire speed: 1,5 m/sec.

**System-unit housing:** anodised aluminium

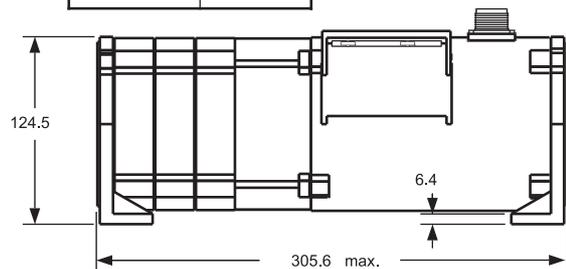
**Weight:** SZG incl. Encoder max. 6,5 kg.

**Life expectancy:** At least 10 million cycles.

Operating temperature: -20... +70 °C.  
Storage temperature: -30... +80 °C.



Measurement ranges	"A" mm
1000	25,9
1500	44,7
2000	40,1
2500	50,2
3000	37,8
3800	47,2
4300	53,6



All details in mm and dependent on the encoder configuration.

Order No.:

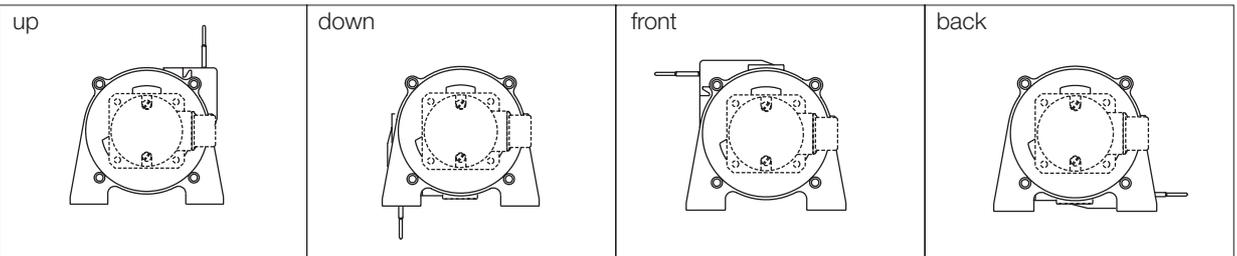
UP

DN

FR

BK

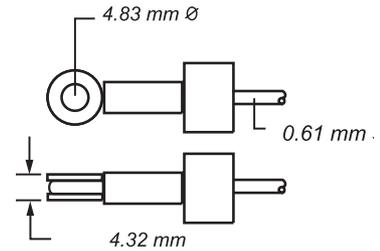
Direction:



**Example of the order of a Draw-wire system:**

SZG122 - 2500 - N - UP - G24 - 3

2.500: Draw wire system with 2.500 cm Measurement range;  
 N: nylon coated high-grade steel wire  
 UP: Wire exit up  
 G24: Incl. incremental encoder 58A with channels  
 ABN, signal output G24  
 Connections: Connector 7-pin, radial  
 3: Resolution 3,23 pulses/mm.


**Order number: SZG122 - 2500 - N - UP - G24 - 3**  
**Position: 1 2 3 xx yy zz**

Short description	Position	Part of order number	Notice/Description
<b>Type</b>	1	SZG122	Draw wire system, housing 122 mm.
<b>Measurement range (MB)</b>	2	1.000 1.500 2.000 2.500 3.000 3.800 4.300	Measurement range 1.000 cm Measurement range 1.500 cm Measurement range 2.000 cm Measurement range 2.500 cm Measurement range 3.000 cm Measurement range 3.800 cm Measurement range 4.300 cm
<b>Measurement wire</b>	3	N	0.86 mm of thick nylon coated high-grade steel wire
<b>Mounting direction</b>	xx	UP DN FR BK	Wire exit up Wire exit down Wire exit front Wire exit back
<b>Output</b>	yyy	G24 = 10-30 VDC, HTL I05 = 5 VDC, RS422 TTL comp.	Channels ABN, signal output Channels: ABN, $\overline{ABN}$ , signal output
<b>Resolution *1</b>	zz	3 6 16 zz*	3,23 pulses/mm 6,46 pulses/mm 16,13 pulses/mm You specify another encoder, please, use the order number of the WDG 58 A type. This encoder is assembled by us.

zz\* mounted Encoder WDG 58A - zzzz - ABN - yyy - S3/5 (ppr):

For resolution 3,23 Imp./mm, of with the following qualities:

Channels: ABN: 2 channels shifted by 90° plus inverted signals

Output: G24: 10-30 Volt, 40 mA push-pull. I05: 5 VDC, 40 mA push-pull.

Connections: Connector 7-pin, radial = S3 (PIN-arrangement: A=3, B=4, N=5, 0V=1, 10-30VDC=2)

Connector 12-pin, radial = S5 (PIN-arrangement: A=5, B=8, N=3, A inv.=6, B inv.=1, N inv.=4, 0V=10, 5 VDC=12)

If you like to specify your individual encoder, please enter at the order number zz and define from the data sheet WDG 58A your special encoder.

**Ordering information:**

<b>Mounting direction:</b> Wire exit up = UP Wire exit down = DN Wire exit front = FR Wire exit back = BK	<b>Output circuit:</b> G24 = 10-30 VDC, HTL I05 = 5 VDC, RS422 TTL comp.
<b>Measuring wire:</b> 0.86 mm of thick nylon coated high-grade steel wire = N	<b>Resolution:</b> 3 = 3,23 pulses/mm 6 = 6,46 pulses/mm 16 = 16,13 pulses/mm  You specify another encoder, please use the order number of the WDG 58 A type = zz

Example	SZG122	2500	N	UP	G24	03
Your system	SZG122					