Draw-wire system SZG122

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

www.wachendorff-automation.com/szg122

The draw-wire encoder SZG 122 was developed for use in harsh environments. With its 7 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 cm up to 1000 cm, 0 cm up to 1500 cm, 0 cm up to 2000 cm, 0 cm up to 2500 cm, 0 cm up to 3000 cm, 0 cm up to 3800 cm and 0 cm up to 4300 cm

Resolution Measurement ranges:
WDG 58A mit 1000 PPR = Resolution: 3.23 pulses/mm
            2000 PPR = Resolution: 6.46 pulses/mm
            5000 PPR = Resolution: 16.13 pulses/mm

Electrical Output
2 channels (AB) are shifted by 90°. Pulses 10 VDC up to 30 VDC, push-pull, 40 mA and zero pulse per rotation = G24
2 channels (AB) are shifted by 90°. Pulses 4.75 VDC up to 5.5 VDC, 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.

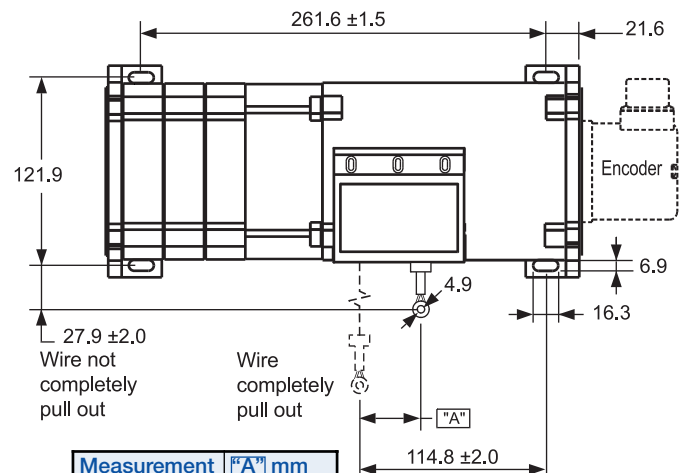Wire connection: eye
max. wire speed: 1.5 m/sec.

System-unit housing: anodised aluminium

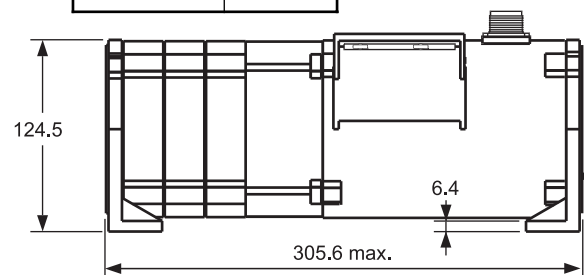**Weight:** SZG incl. encoder max. 6.5 kg.

Life expectancy: At least 10 million cycles.

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

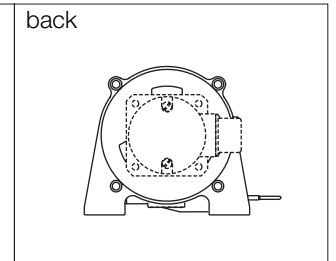| Order number:	UP	DN	FR	BK
Direction:	up	down	front	back

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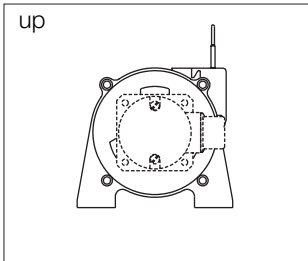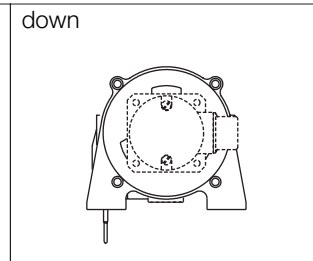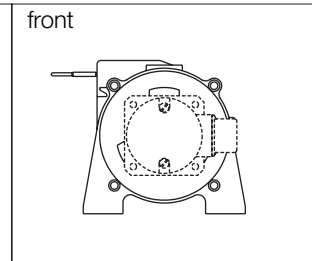
Example of the order of a Draw-wire system:

SZG122 - 2500 - N - UP - G24 - 3

2500:	Draw wire system with 2500 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.

Ø4.83

Ø0.61

Ø4.32
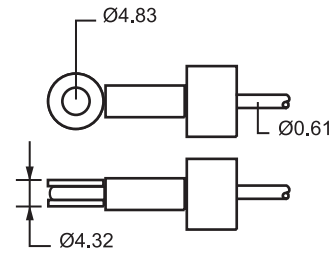
Order number:	SZG122 - 2500 - N - UP - G24 - 3				
Position:	1	2	3 xx	yyy	zz

Short description	Position	Part of order number	Description
Type	1	SZG122	Draw wire system, housing 122 mm.
Measurement range (MB)	2	1000 1500 2000 2500 3000 3800 4.300	Measurement range 1000 cm Measurement range 1500 cm Measurement range 2000 cm Measurement range 2500 cm Measurement range 3000 cm Measurement range 3800 cm Measurement range 4.300 cm
Measurement wire	3	N	0.86 mm of thick nylon coated high-grade steel wire
Mounting direction	xx	UP DN FR BK	Wire exit up Wire exit down Wire exit front Wire exit back
Output	yyy	Draw wire system, housing 122 mm.	Channels ABN, signal output Channels: ABN, $\overline{ABN}$, signal output
Solution *1	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:

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

Measuring wire:
0.86 mm of thick nylon coated high-grade steel wire = N

Measurement range:
1000 cm = 1000	3000 cm = 3000
1500 cm = 1500	3800 cm = 3800
2000 cm = 2000	4300 cm = 4300
2500 cm = 2500	

Output circuit:
G24 = 10 VDC up to 30 VDC, HTL
I05 = 4.75 VDC up to 5.5 VDC, TTL, RS422 comp.

Resolution:
3 = 3.23 Impulse pro mm
6 = 6.46 Impulse pro mm
16 = 16.13 Impulse pro mm

You specify another encoder, please use the order number of the WDG 58A Typs. = zz

Example	SZG122	2500	N	UP	G24	03
Your system	SZG122					