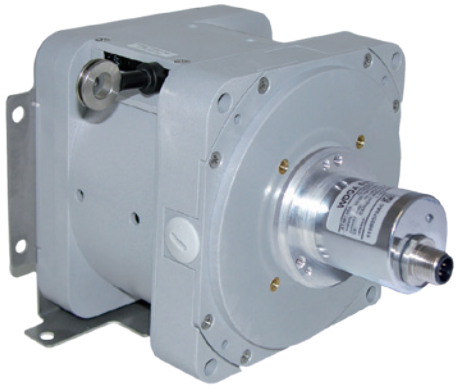
Wachendorff Automation GmbH & Co. KG
Industriestraße 7 • D-65366 Geisenheim
Tel.: +49 (0) 67 22 / 99 65 -414 • Fax: +49 (0) 67 22 / 99 65 -70
support-wdga@wachendorff.de • www.wachendorff-automation.com

Draw-wire system SZG140 - WDGA CANopen



- Exceptionally rugged length sensor
- Measuring range: 0 mm bis 10,200 mm
- Interface: CANopen CiA 406
- free configurable
- IP65 absolute encoder WDGA CANopen ready-mounted

www.wachendorff-automation.com/szg140wdgacan

With the new Cable System SZG140, 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 an absolute encoder WDGA58B, resolutions can be implemented perfectly.

Typical areas of application include:
lift/elevators, lifting platforms, theatre stages, fork lifts and cranes.

Measurement ranges::
0 mm up to 10,200 mm

Resolution measurement ranges WDGA58B:

Position per mm	Bit per revolution
0.67	8
1.34	9
2.68	10
5.37	11
10.74	12

Deviation: Less than 0.04 % of the final value.
Measuring wire:
0.79 mm of thick high-grade steel wire.
Wire connection: eye
max. wire speed: 1.5 m/sec.
Pull out strength: approx. 0.64 kg

System-unit housing: Glass fiber reinforced plastic with UV inhibitor
Weight: SZG incl. encoder max. 2.5 kg
Life expectancy: At least 1 million cycles
Operating temperature: -40 °C up to +85 °C
Storage temperature: -40 °C up to +85 °C

Interface **CAN**
Protocol: CANopen
- Communication profil CiA 301
- Device Profile for encoder CiA 406 V3.2 class C2

Node number: 0 up to 127 (default 127)
Baud rate: 10 kBaud up to 1 MBaud with automatic bit rate detection

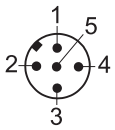
The standard settings as well as any customization in the software can be changed via LSS (CiA 305) and the SDO protocol, e. g. PDOs, Scaleing, Heartbeat, Node-ID, Baud rate, etc.

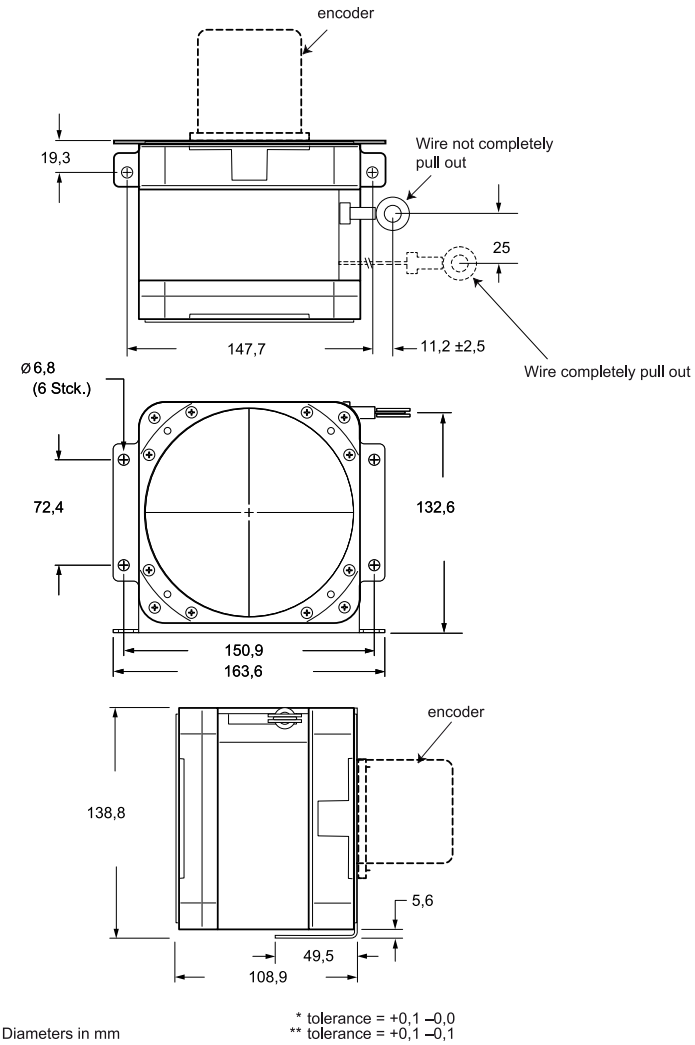
It is recommend to configure object 6000 h resolution and direction to ccw.

Programmable CAN transmission modes
- **Sychronous mode:** when a synchronisation telegram (SYNC) is received from another bus node, PDOs are transmitted independently.
- **Asynchronous mode:** a PDO message is triggered by an internal event. (e.g. change of measured valued, internal timer, etc.)

Electrical Data:
Supply voltage: 10 VDC up to 30 VDC
max. 50 mA
Power consumption: max. 0.5 W

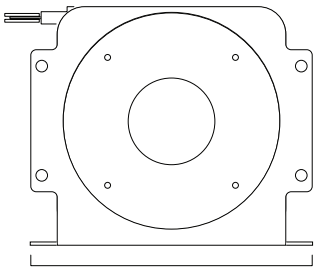
Connection configuration for encoder WDGA CANopen:

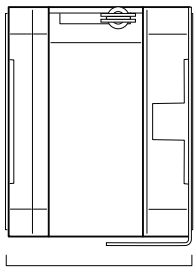
Definition	connector pin (connector-encoder)	Sensor connector pin assignment 5-pin
U_B	2	
Ground (GND)	3	
CAN_{High}	4	
CAN_{Low}	5	
CAN_{GND} / shield	1	

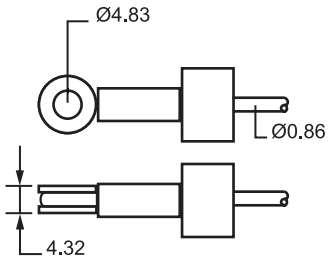


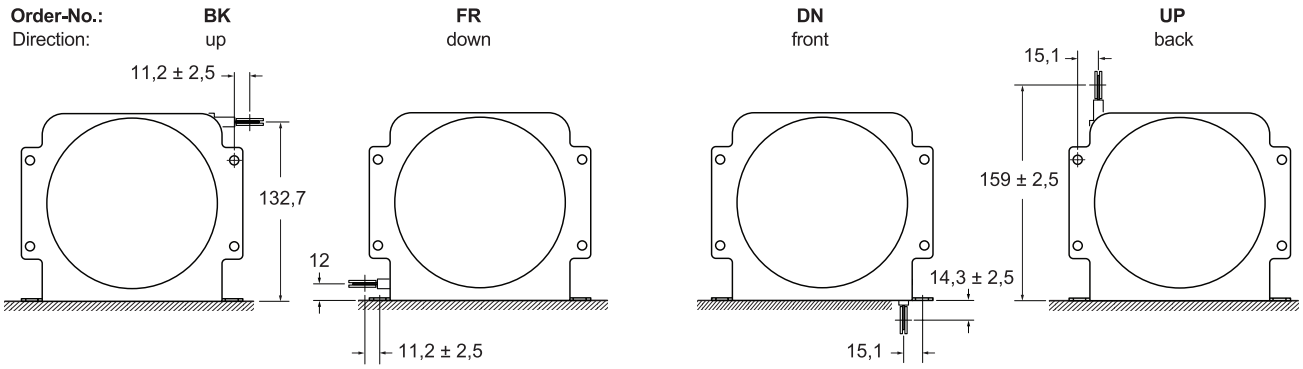
Diameters in mm

* tolerance = +0,1 –0,0
** tolerance = +0,1 –0,1









Ordering information:

Measurement range:
1020 = 10,200 mm

Measurement wire:
B = 0.79 mm of thick 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
08 => 8 bit (= approx. 0.67 position/mm)
09 => 9 bit (= approx. 1.34 position/mm)
10 => 10 bit (= approx. 2.68 position/mm)
11 => 11 bit (= approx. 5.36 position/mm)
12 => 12 bit (= approx. 10.74 position/mm)

Multiturn resolution
18 = 18 bit

Interface
CO = CANopen

Software:
A = up to date release

Code
B = binary

Power supply
0 = 10 V up to 30 V

Galvanic isolation
0 = no

Connection
CB5 = connector, 5-pin, axial

Your system	SZG140		B			18	CO	A	B	0	0	CB5

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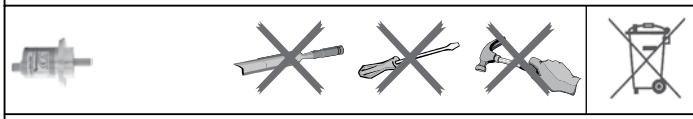
Montageanleitung absolute Drehgeber WDGA EnDra®, CANopen,

Assembly instructions for WDGA EnDra®, CANopen absolute encoder, Instructions de montage, capteur angulaire WDGA EnDra®, CANopen, Istruzioni per l'uso trasduttore assoluto WDGA EnDra®, CANopen, Instrucciones de montaje codificador absoluto WDGA EnDra®, CANopen.

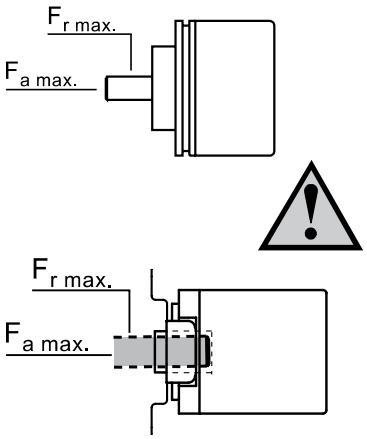
°C (°F)	-40 °C ... +80 °C (-40 °F ... +176 °F)	WDGA58V: -20 °C ... +80 °C (-4 °F ... 176 °F)
	-40 °C ... +100 °C (-40 °F ... +212 °F)	-20 °C ... +80 °C (-4 °F ... 176 °F)

Montage nur qualifiziertes Personal
Assembly only qualified personnel
Montage pair qualifié personnel
Montaggio solo personale qualificato
Montaje solamente personal cualificado

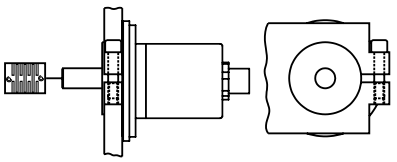


Sicherheitsmassnahmen/safety instructions:
Die Produkte dürfen nur in industrieller Umgebung und im NICHT sicherheitsrelevanten Bereich eingesetzt werden. The products are only designed and produced for use in industrial environments and NOT for use in safety related applications.

Standard	F_r max.	F_a max.
WDGA58A WDGA58B Ø 6 mm Ø 10 mm	 125 N 220 N	 120 N 120 N
WDGA58S WDGA58V Ø 10 mm	 100 N	 100 N
WDGA36A	80 N	50 N
WDGA36E WDGA58E	80 N 80 N	50 N 50 N



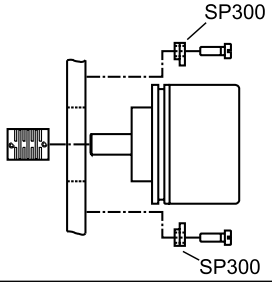
WDGA58B
WDGA58S
WDGA58V



M3 (8.8)
Ma = 1 Nm

M4 (8.8)
Ma = 2 Nm

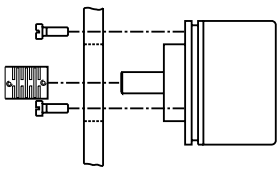
WDGA58A
WDGA58B
WDGA58S
WDGA36A



M3 (8.8)
Ma = 1 Nm

M4 (8.8)
Ma = 2 Nm

WDGA58A
WDGA58B
WDGA58S
WDGA58V
WDGA36A

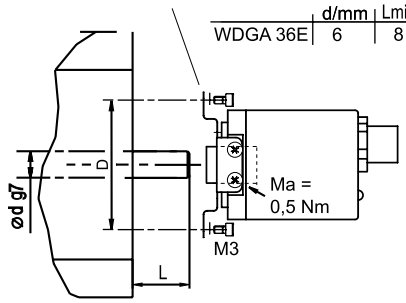


M3 (8.8)
Ma = 1 Nm

M4 (8.8)
Ma = 2 Nm

WDGA36E **Artikelnr.,** Item number, Numéro d'article, Número de artículo : WDGDS10016

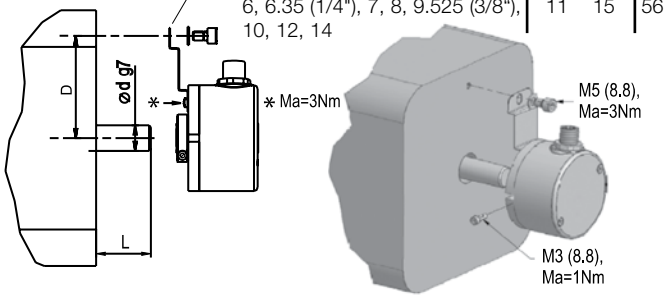
	d/mm	Lmin.	Lmax.	D
WDGA 36E	6	8	17	42



M3 (8.8)
Ma = 1 Nm

WDGA58E **Artikelnr.,** Item number, Numéro d'article, Número de artículo : WDGDS10001

d/mm	Lmin	Lmax	D
6, 6.35 (1/4"), 7, 8, 9.525 (3/8"), 10, 12, 14	11	15	56



Übertragungsrate Transmission rate Taux de transfert Velocità di trasferimento Velocidad de transmisión	max. Buslänge Max. bus length Longueur max du port Lunghezza massima bus Longitud máx. de bus	max. Stichleitungslänge Max. stub line length Longueur max de la ligne d'accord Lunghezza massima linea derivata Longitud máx. línea de empalme
20 kBit/s	1000 m	7,5 m
100 kBit/s	500 m	3,75 m
250 kBit/s	270 m	1,5 m
500 kBit/s	100 m	0,75 m
1000 kBit/s	40 m	0,3 m

Definition, Definition, Définintion Definizione, Definicón	Steckerpin, Plug pin, Connecteur points, Spinotto, Pin conector	Kabel, cable, Câble, Cable, cavo	
			58V
U_B (10 VDC - 30 VDC)	2	bn	bn
Ground (GND)	3	wh	og
CAN High	4	gn	gn
CAN Low	5	ye	ye
CAN GND/Schirm, Shield, Ecran, Pantalla, Schermo	1	gy	gy

Bitte beachten Sie das Handbuch zum WDGA CANopen unter www.wachendorff-automation.de/handbuchwdga
Please observe the handbook for WDGA CANopen under
Veuillez consulter le manuel WDGA de CANopen sur
Osservare il manuale del WDGA CANopen sotto
Por favor, tengan en cuenta el manual WDGA CANopen en
www.wachendorff-automation.com/manualwdga

Die EDS-Datei finden Sie unter www.wachendorff-automation.de/eds
You will find the EDS file under
Vous trouverez le fichier EDS sur
Il file EDS può essere trovato sotto
Encontrará el archivo EDS en
www.wachendorff-automation.com/eds