

OPERATING MANUAL

EWS. CyberCon4

xx.xxx-CC4 Version 2.0 Stand 01.09.2023







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Operating manual

Please read the operating manual carefully and follow the instructions. Keep the operating instructions for the entire service life of the product. Use these operating instructions to familiarize yourself with the device, its correct use and the safety instructions.

Intended Use

When operating driven tools on turning and milling centers, changing operating parameters arise. EWS.CyberCon4 is intended for data acquisition in the machining process of the driven tool. EWS.CyberCon4 is to be understood as an extension and may only be used in this combination and for no other purpose. EWS.CyberCon4 is delivered assembled and can only be read out in connection with the CyberCon4 app.



The user is liable for improper use.

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1. SAFETY



DANGER! The device generates an electromagnetic field during operation. The field may interact with medical implants. Recommendation: Consult your doctor before operating the device to avoid the risk of serious or fatal injury.

Children and adolescents under 16 years of age as well as persons who are not familiar with these operating instructions may not use the device. Persons with limited physical or mental abilities may only use the device if they are supervised or instructed by a competent person. Never use the device if you are tired, sick or under the influence of alcohol, drugs or medication.



WARNING!

Risk of explosion if the battery is incorrectly replaced. The battery may only be changed by EWS service staff. Contact details under 10. Service/guarantee.

2. FUNCTION

With EWS.CyberCon4, driven tools (1) for turning and milling centers are expanded with sensors. The extension is used to monitor the operating parameters (see <u>4.2 Operation / operating parameters & functions</u>) that arise during the use of the driven tool. This enables integration into Industry 4.0 processes and the control of maintenance measures. The sensor system is located under the cover (2) and sends the recorded data to the receiver (3) via Bluetooth. The values can be read out with the CyberCon4 app.





3. INSTALLATION

When delivered, EWS.CyberCon4 is in stand-by mode. The operating time is 12 months from the time of commissioning, with normal use (2x app query per day).

Assembly on the machine:

- Mount the driven tool properly
- Operating instructions at <u>https://www.ews-tools.de/en/downloads</u>

Activate:

- Drive the driven tool with at least 500 / min for 5 seconds
- EWS.CyberCon4 is now activated and can be read in the CyberCon4 app
- The data can now be read out without rotation!







4. OPERATION

A receiver with an active Bluetooth interface is required to operate EWS. CyberCon4 (tablet, smartphone). EWS.CyberCon4 is operated via the CyberCon4 app.

The app can be installed via the Apple App Store or the Google Play Store.

4.1 REQUIREMENTS

BLE (Bluetooth Low Energy 4.1)

Software	
Apple	from iOs 10
Android	from Android 5.1.1

For best compatibility, an update to the latest version of the operating system is recommended.

4.2 OPERATING PARAMETERS & FUNCTIONS

The following data (operating parameters) can be read out and functions used with the CyberCon4 app.

- Serial number of driven tool
- Speed
- Temperature
- Service intervals
- FCS (Fluid Control Sensor) detection of seal failure
- Battery status
- Average duty cycle
- Number of duty cycles
- Average speed
- Percentage use Temperature and speed range
- Storage of data for offline access
- Export of collected data by e-mail



4.3 CYBERCON4 APP 4.3.1 INSTALLATION OF THE APP

1

Activate the data connections for the Internet and Bluetooth on the receiver (tablet, smartphone).





4.3.2 OPEN



Open the app with CyberCon4 Icon.



4.3.3 CYBERCON4 OPERATOR MASKS





11:03 🛢 🗃 🖗		1 • 1
Tools Overview		c o e
	(24) tools found	
EWS 016679		
 20/26 ℃ 0/5581 rpm 	 99 % 95 % 	
EWS		Active
© 23/67 % © 2761/11082 rpm	 99 % 64 % 	
EWS 016679		
 ♦ 23/27 ℃ Q 0/9 rpm 	● 100 % ● 99 %	
ews 022131		Active
🙆 26/101 °C 📿 2468/9659 rpm	 ■ 99 % ■ 64 % 	
EWS 016679		Active
👌 23/66 % 🖓 6232/6408 rpm	 ■ 99 % ■ 93 % 	
EWS 022132		A 1999
 ₫ 30/70 % Q 0/10537 rpm. 	 ♥ 99 % ■ 64 % 	
0 Burtoth		1 24

List of the driven tools found in the range with EWS.CyberCon4.

- Data is updated and displayed regularly (depending on settings).
- Further data and details can be read by tapping a field.

EWS 022132	Serial number driven tool	Number corresponds to the serial number of the driven tools (S/N)
త 30/70 ℃	Temperature °C	Current / maximum recorded temp.
Q 0/10537 rpm	Rotational speed 1/min	Current / maximum recorded speed
s 64 %	Time remaining service %	Remaining % until the service is due depending on the time used (12 months)
99 %	Time remaining operation%	Remaining% until service is due depending on the operating parameters used, such as speed and temperature
	Service symbol	A service is due. Please send the driven tool in for service. The symbol lights up as soon as the remaining time is below 10% <u>See 6. Maintenance and care</u>
Active	Active symbol	Driven tool is in use / spindle rotates
	FCS (Fluid Control Sensor)	Seal failure. The AGW should be stopped immediately to avoid machine damage. Please send in the AGW for service.



1.04 🖻 🗑 P	1*1
← Tool details	
Bluetooth data	Statistics
Tool Technologies	
N: 022133	
Signal strenght	643
 Temperature 	23 10
O Revel direct	2761 rpm
Hevolutions	Max. 11082 rpm
Remaining service time	64.5
Remaining operation time	99 X
Dattery	(111)
	and and a second s

Bluetooth Data

Here you will find all the data for the selected driven tool.

Signal strengh	Current signal strength
🕚 Temperature	Current / maximum recorded temp.
Q Revolutions	Current / maximum recorded speed
S Remaining servic	Remaining % until the service is due depending on the time used (12 months)
Remaining opera	Remaining % until service is due depending on the operating parameters used, such as speed and temperature
Battery	Battery status 100%
	Battery status 0%



SN: 022133
Power on average duration

60-00

Power-on/off counter
 Revolutions average

...

71 s

2512 mm

 Display of additional data of the selected driven tool

\bigcirc_{ϕ}	Power-on average duration	Average duty cycle in relation to the entire runtime
	Power-on/off counter	Number of start-ups in the entire runtime
G.	Revolutions average	Average speed in relation to the entire runtime
	Operating time rates	Percentage display of temperature and speed in relation to the total runtime



Cached Tools Overview		C Ø 8
	(24) tools found (in cashe)	
EWS 016679		
♦ 20/26°C Q 0/5581 gm	 99 % 95 % 	
FWS		Active
022133		
🙆 23/67 °C 📿 2761/11082 rpm	 ♥ 99 %. ● 64 %. 	
EWS 016679		
🕹 23/27 °C 📿 0/3 rpm	 100 % 99 % 	
EWS 022131		Active
8 26/101 °C O 2468/9659 rpm	 99 % 64 % 	
EWS 016679		Active
 23/66 ℃ 6232/6408 rpm 	 93 % 93 % 	
EWS 022132		
👌 30/70 10 📿 0/10537 rpm	 ■ 99 % ■ 64 % 	
0 0/10/22/ 10/10		

08:42 🖪 📾 👂	1 K V S
← Settings	
APPLICATION	
Language	
English	
CONNECTIVITY	
Automatic rescan interval	
61	
Signal strenght threshold	
-110	

History / Cache

The received driven tool holders are saved with EWS.CyberCon4 under the "Cache" tab.

- Data readable without Bluetooth connection
- Further data and details can be read by tapping a field
- All data can be sent via email as an Excel file

Settings

You can make various settings here.

- Language (German, English)
- Threshold for signal strength
- Automatic refresh interval
- Setting the update interval



Limit values for the operation of driven tools

Temperature: Speed: Other: max. 80°C see labeling of driven tool see operating instructions driven tool https://www.ews-tools.de/en/downloads



5. BATTERY CHANGE



- When changing the battery, always replace all flat gaskets.
 Spare part set Article no.: 228046
- Cleaning of the tool.
- Visual inspection of the CC4 cover. In case of defects the cover must be replaced.
- There are two versions of the CC4 Unit.



Changing the battery on variant 1:

Loosening the outer 4 screws





- Pulling off the sensor unit
- Loosen the inner 4 screws



Removing the cover



 Tilt the sensor module, but do not pull





- Unclip battery and insert new battery
- Replace small flat gasket (make sure the surfaces are clean)

Fit the cover and tighten the 4 inner screws with 3Nm tighten.
Replace large flat gasket



 Place the sensor unit in the driven tool and tighten the 4 outer screws with 3Nm



SIM fel	hit 🗢	12:36		Ð
Zurü	ck Werl	kzeugdetail	s C	;
Blue	tooth Daten		Statistiken	
Tool Te	chnologies			
SN: 00	00020			
٣	Signalstärke		-79 dBL	ı
I	Temperatur		21 °C Max. 27 *C	
Ģ	Umdrehungen		0 1/mi r Max. 14240 1/mir	1
Ś	Restzeit Servic	e	0 %	6
٢	Restzeit Betriet	b	0 %	6
	Batterie]
	Zuletzt aktuali	siert: 13.11.2023 1	12:36:29	



- Set the battery status in the app to 100%
- Tap the battery symbol



SIM fe	hit 🗢 12:37	
< Zurü	ick Werkzeugdetails	G
Blue	etooth Daten Statisti	ken
Tool Te	schnologies	- €
9	Signalstärke	-79 dBU
S C	Reset Battery Successfully resetted the battery	21 °C . 27 °C • 1/min 0 1/min
٢		0 %
٢	Restzeit Betrieb	0 %
	Batterie	•
	Zuletzt aktualisiert: 13.11.2023 12:36:29	

- If the reset is successful the following message appears
- Check sensor unit for function





ь

Changing the battery on variant 2:

Loosening the 4 screws



Removing the cover



 Tilt the sensor module, but do not pull





- Unclip battery and insert new battery
- Replace small flat gasket (make sure the surfaces are clean)



- Place the sensor unit in the driven tool and tighten the 4 outer screws with 3Nm
- Set the battery status in the app to 100%
- Check sensor unit for function



SIM fel	hit 🗢	12:36		Ð
Zurü	ck Werl	kzeugdetail	s C	;
Blue	tooth Daten		Statistiken	
Tool Te	chnologies			
SN: 00	00020			
٣	Signalstärke		-79 dBL	ı
I	Temperatur		21 °C Max. 27 *C	
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Ś	Restzeit Servic	e	0 %	6
٢	Restzeit Betriet	b	0 %	6
	Batterie]
	Zuletzt aktuali	siert: 13.11.2023 1	12:36:29	



- Set the battery status in the app to 100%
- Tap the battery symbol

```
    Tap reset battery
```



SIM fe	hit 🗢 12:37			
< Zurü	ick Werkzeugdetails	G		
Bluetooth Daten Statistiken				
Tool Te	echnologies			
9	Signalstärke	-79 dBU		
0	Reset Battery Successfully resetted the battery	21 °C . 27 °C 1/min 0 1/min		
٢	OK Nesizek seivice	0 %		
٢	Restzeit Betrieb	0 %		
	Batterie			
	Zuletzt aktualisiert: 13.11.2023 12:36:29			

- If the reset is successful the following message appears
- Check sensor unit for function



6. MAINTENANCE AND CARE

Cleaning:	Clean only with a cleaning cloth. Never use compressed air or any cleaning agents.	
Service case:	In the event of a defect of any kind, contact the service staff. When the service icon lights up in the app, contact the service staff. <u>service@ews-tools.de</u>	

TIP: Annual maintenance prevents major damage.

7. STORAGE, TRANSPORT AND DISPOSAL



Always store and transport the device dry at a minimum of 10 °C to a maximum of 40 °C.

Do not dispose of in normal household waste. Please conPlease contact our service or send the device back to us.



DANGER!

Return transportation by air freight is prohibited.



8. TROUBLESHOOTING

In case of malfunctions, please report under

EWS Weigele GmbH & Co. KG

Telephone+49(0)7161-93040-100Mailservice@ews-tools.de



In the event of other faults, please contact our service.

9. TECHNICAL DATA

Radio frequency	2.4 GHz RF transceiver, compatible with
	Bluetooth Low Energy (BLE)
	4.1 Specification
Max. Radio	power +5 dBm
Temperature application range	+ 10 ° C to + 80 ° C
	Approval testing radio properties after
	ETSI EN 300 328 V 2.1.1
	Immunity tests according to ETSI EN 301
489-1 Battery life	approx. 12 months
Weight	40g EWS.CyberCon4 + driven tool holder
Range BLE	up to. max. 7m, depending on environment

CE declaration of conformity

CE



Herewith, EWS Weigele GmbH & Co. KG declares that this EWS CyberCon4 radio module complies with the essential requirements and other relevant provisions of the following guidelines:

Directive 2014/35 / EU - Provision of electrical equipment Directive 2014/30 / EU - Electromagnetic Compatibility Directive 2014/53 / EU - provision of radio equipment Directive 2011/65 / EU - Restriction of the use of certain dangerous substances in electrical and electronic devices

10. SERVICE / GUARANTEE

Services

- Professional, quick repairs through our service
- Competent advice in the event of malfunctions through our service
- In accordace with §19, Section 1, Sentence 1 of the ElektroG, our service offers a take-back option.

Service address

EWS Weigele GmbH & Co. KG

Telephone+49(0)7161-93040-100Mailservice@ews-tools.de

Guarantee

1 year warranty on the device for all major defects that are demonstrably attributable to material or production defects.

In the event of a warranty claim, please contact our service.