

ZAC50CN0x

Ethernet Junctions



Ether**CAT** 

Operating instructions

Index

1. Proper Use	3
2. Safety Precautions	3
3. Approvals and IP Protection	3
4. Technical Data	4
4.1. Connection table ZAC50CN0x	5
4.2. Housing Dimensions	6
4.2.1 ZAC5xxN01	6
4.2.2 ZAC50xN02	6
4.3. Complementary Products	7
5. Application Notes	11
6. Mounting Instructions	11
7. Initial Operation	11
7.1. System Structure	12
7.2. Power Cable	12
7.3. Functional Earth	13
7.4. Industrial Ethernet Cable	13
7.5. Industrial Ethernet Cable with Power over Ethernet	14
7.6. Connecting Digital Sensors and Actuators	14
7.7. Diagnosis	15
7.7.1 LED Display EtherCAT Device (ZAC50CN0x)	16
7.8. Operation on a Controller	18
9. Web-based Configuration	21
9.1. Call up the Administration Interface	21
9.2. Overview page	23
9.3. Device settings	24
9.4. Industrial Ethernet Ports Settings	26
9.5. Digital I/O Ports Settings	27
10. Maintenance Instructions	28
11. Proper Disposal	28
12. EU Declaration of Conformity	28

1. Proper Use

This wenglor product must be used in accordance with the following functional principle:

Junction

A Junction is an active network component which distributes data to the corresponding addresses within a network in a targeted fashion. wenglor junctions are fitted optionally with additional Power over Ethernet technology. The power supply is integrated into existing network connection by means of Power over Ethernet. As an addition to Industrial Ethernet, there are several digital inputs and outputs directly on the junction that can be activated or evaluated via the network.

2. Safety Precautions

- This operating instruction is part of the product and must be kept during its entire service life.
- Read this operating instruction carefully before using the product.
- Installation, start-up and maintenance of this product has only to be carried out by trained personnel.
- Tampering with or modifying the product is not permissible.
- Protect the product against contamination during start-up.
- Not a safety component in accordance with the EU Machinery Directive.

3. Approvals and IP Protection



4. Technical Data

Order number	ZAC50CN01	ZAC50CN02
Supply voltage	18...32 V DC	18...32 V DC
Max. Current Consumption Device *	0.3 A	0.25 A
Max. Current Consumption System **	2.2 A	2 A
max. PoE Capacity	30 W	25 W
Temperature range	-25...60 °C	-25...60 °C
Voltage drop junctioning outputs	< 2.5 V	< 2.5 V
Max. junctioning current junctioning outputs	0.6 A	0.6 A
Max. total current of the digital I/O ports	1A	1A
Digital I/O ports short-circuit protected	Yes	Yes
Digital I/O ports overload protected	Yes	Yes
Digital I/O ports reverse polarity protected	Yes	Yes
Number of digital I/O ports	2	2
Housing material	Aluminum	Aluminum
Protection class	IP67	IP67
Type of connection power	7/8", 5-pin	7/8", 5-pin
Type of Connection Industrial Ethernet Ports	M12×1, 4-pin, D-coding	M12×1, 4-pin, D-coding
Type of Connection PoE Ports	M12×1, 8-pin, type x	M12×1, 8-pin, type x
Type of Connection Digital I/O ports	M12×1, 4-pin, A-coding	M12×1, 4-pin, A-coding
Number of PoE ports	5	2
Number of Industrial Ethernet Ports	2	2
Number of Digital I/O ports	2	2
PoE Standard	IEEE802.3af	IEEE802.3af
PoE Classes	Class 0, 1, 2, 3	Class 0, 1, 2, 3
Baud Rate	100 Mbit/s	100 Mbit/s
Transmission Mode	Full Duplex	Full Duplex
EoE Ethernet over EtherCAT	Yes	Yes
Website	Yes	Yes
Junction Mode	Store & Forward	Store & Forward
VLAN Prioritization	Yes	Yes
Auto-Crossover	Yes	Yes
Auto-Negotiating	Yes	Yes
Auto-Polarity	Yes	Yes

* Maximum own power consumption of the product without additional loads

** Maximum own power consumption of the product with additional loads
Full assignment of all PoE ports (if available) without digital I/O ports

4.1. Connection table ZAC50CN0x

52

Socket 1

Suitable Plug: 50

Pin	Function	In/Out
1	TxD (+)	Out
2	TxD (-)	Out
3	RxD (+)	In
4	RxD (-)	In
5	PoE (+)	Out
6	PoE (+)	Out
7	PoE (-)	Out
8	PoE (-)	Out

Socket 2

Suitable Plug: 51

Pin	Function	In/Out
1	TxD (+)	Out
2	RxD (+)	In
3	TxD (-)	Out
4	RxD (-)	In


Socket 3

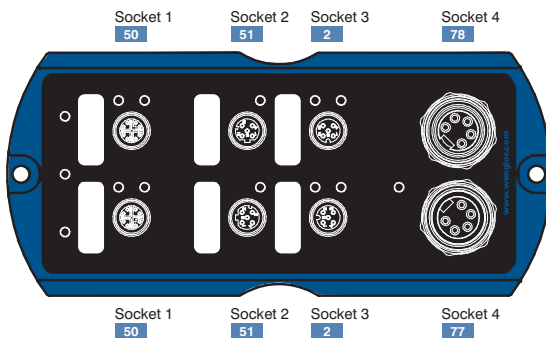
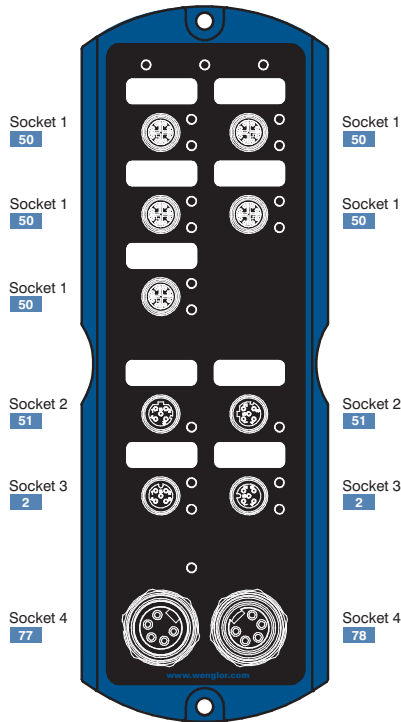
Suitable Plug: 2

Pin	Function	In/Out
1	+24 V DC	Out
2	I/O	
3	GND	Out
4	I/O	
5		

Socket 4

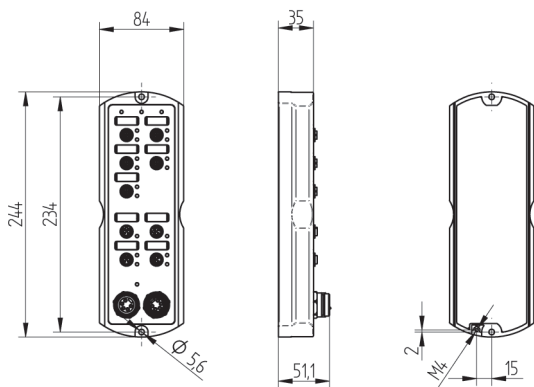
Suitable Plug: 77 78

Pin	Function
1	0 V DC
2	0 V DC
3	
4	+24 V DC U _{system}
5	+24 V DC U _{Digital I/O / Sensor}

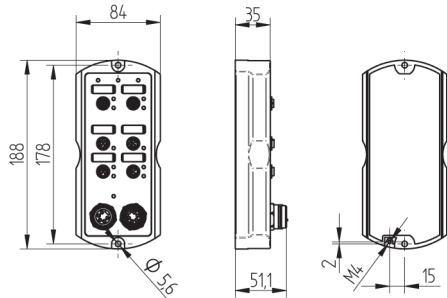


4.2. Housing Dimensions

4.2.1 ZAC5xxN01



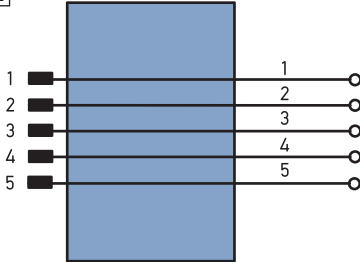
4.2.2 ZAC50xN02



4.3. Complementary Products

Connection plug, 7/8", 5-pin

S82

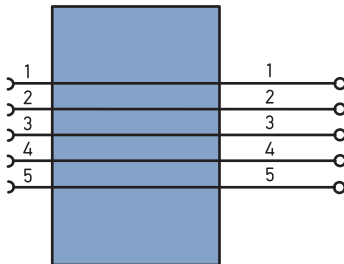


Order number: ZAT77NN01

Suitable Plug: **77**

Connection socket, 7/8", 5-pin

S87

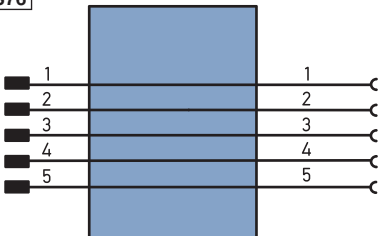


Order number: ZAB78NN01

Suitable Plug: **78**

Connecting cable, 7/8", 5-pin

S76



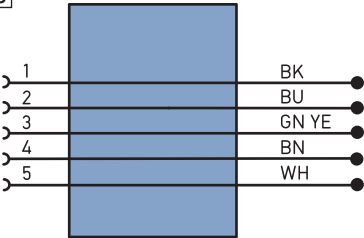
Order number: ZAV78R201,

Suitable Plug: **78**

Cable length: 2 m

Connecting line, 7/8", 5-pin

S75



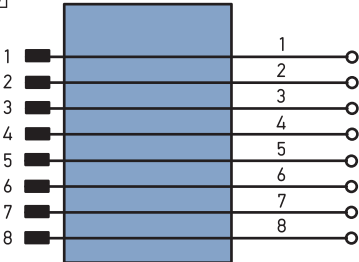
Order number: ZAS78R601,

Suitable Plug: 78

Cable length: 10 m

Connector Plug RJ45; 8-pin

S48

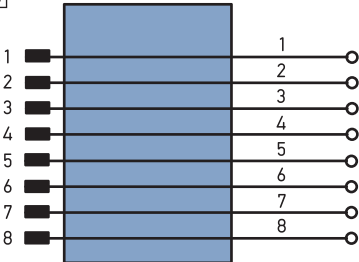


Order number: ZAT45NN01

Suitable Plug: 45

Connection plug, M12×1; 8-pin

S48

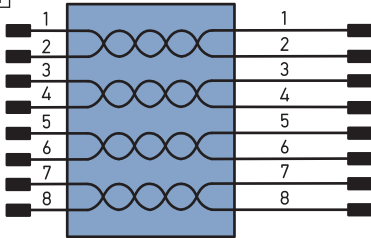


Order number: ZAT50NN01

Suitable Plug: 50

Connecting cable M12×1; 8-pin

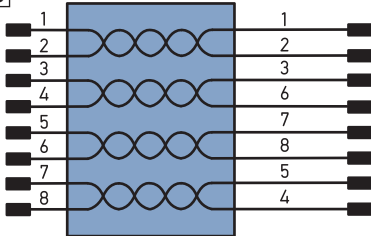
S81



Order number: ZAV50R201,
Order number: ZAV50R501,

Suitable Plug: **50**
Cable length: 2 m (ZAV50R201)
Cable length: 5 m (ZAV50R501)

S85

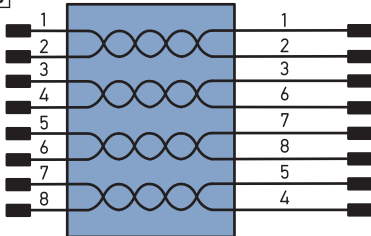


Order number: ZAV50R502,

Suitable Plug: **50**
Cable length: 5 m

Connecting line M12×1, 8-pin

S85

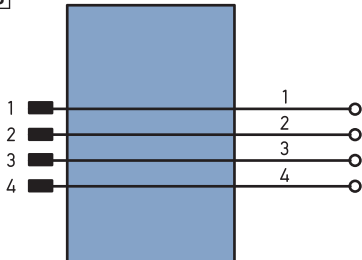


Order number: ZAS50R601

Suitable Plug: **50**
Cable length: 10 m

Connection plug, M12×1, 4-pin

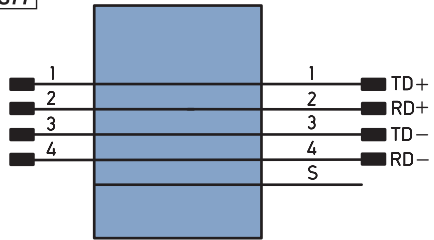
S08



Order number: ZAT51NN01

Suitable Plug: **51**

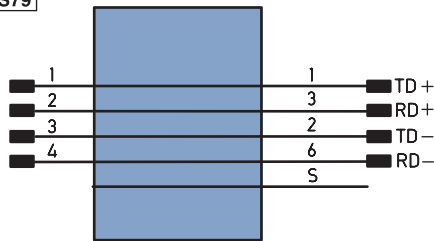
Connecting cable M12×1; 4-pin; D-coding
S77



Order number: ZAV51R201,
Order number: ZAV51R601,

Suitable Plug: 51
Cable length: 2 m (ZAV51R201)
Cable length: 10 m (ZAV51R601)

S79



Order number: ZAV51R202,
Order number: ZAV51R602,

Suitable Plug: 51
Cable length: 2 m (ZAV51R202)
Cable length: 10 m (ZAV51R602)

2 Connection and power supply cables
M12×1; 4-pin, different lengths are available for connecting the sensor/actuator.

Legend

+	Supply Voltage +
–	Supply Voltage 0 V
~	Supply Voltage (AC Voltage)
A	Switching Output (NO)
Ä	Switching Output (NC)
V	Contamination/Error Output (NO)
∇	Contamination/Error Output (NC)
E	Input (analog or digital)
T	Teach Input
Z	Time Delay (activation)
S	Shielding
RxD	Interface Receive Path
TxD	Interface Send Path
RDY	Ready
GND	Ground
CL	Clock
E/A	Output/Input programmable
	IO-Link
PoE	Power over Ethernet
IN	Safety Input
QSSD	Safety Output
Signal	Signal Output
Bi-D+/-	Ethernet GigaBit bidirect. data line (A-D)

PT	Platinum measuring resistor
nc	not connected
U	Test Input
Ü	Test Input inverted
W	Trigger Input
O	Analog Output
O–	Ground for the Analog Output
BZ	Block Discharge
AWV	Valve Output
a	Valve Control Output +
b	Valve Control Output 0 V
SY	Synchronization
E+	Receiver-Line
S+	Emitter-Line
≡	Grounding
SrR	Switching Distance Reduction
Rx +/-	Ethernet Receive Path
Tx +/-	Ethernet Send Path
Bus	Interfaces-Bus A(+)/B(-)
La	Emitted Light disengageable
Mag	Magnet activation
RES	Input confirmation
EDM	Contacting Monitoring
ENAS22	Encoder A/Ä (TTL)

ENa	Encoder A
ENb	Encoder B
AMIN	Digital output MIN
AMAX	Digital output MAX
AOK	Digital output OK
SY In	Synchronization In
SY OUT	Synchronization OUT
OUT	Brightness output
M	Maintenance

Wire Colors according to
DIN IEC 757

BK	Black
BN	Brown
RD	Red
OG	Orange
YE	Yellow
GN	Green
BU	Blue
VT	Violet
GY	Grey
WH	White
PK	Pink

5. Application Notes

The Ethernet ports are fitted with overvoltage discharge protection. Internal varistors limit voltage surges to approx 70 V. The connecting cables of the digital I/O ports must not be longer than 30 m.

6. Mounting Instructions

When mounting and operating the junctions, the corresponding electrical and mechanical regulations, standards and safety rules must be observed. The junction must be protected against mechanical influences. The product must be fastened in such a way that the mounting position cannot change. The junction is designed for use in the industrial sector. The industrial environment is characterized in that consumers are not connected directly to the public low-voltage mains network. Additional measures must be taken for use in the residential sector, business and commercial sectors.

The table below defines the tightening torques of the plugs and fastening options for ensuring compliant and faultless operation.

Connection type	Tightening torque in (Nm)
M12	0.4
7/8" plug	1.5
FE ground strap	2.2±0.2
Junction Mounting	4.0±0.2

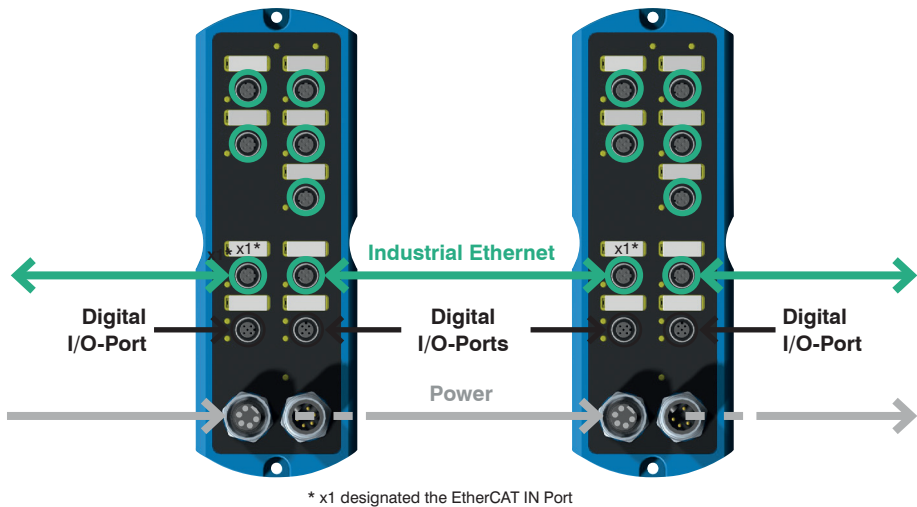
7. Initial Operation

Project planning, installation, start-up, maintenance and testing of the devices may only be carried out by qualified electrical technicians familiar with the safety standards of automation technology.

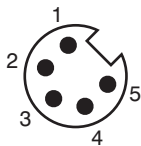
Only cables and accessories that meet the standards and requirements for safety, electromagnetic compatibility and, if necessary, telecommunications terminal equipment and the specifications. In case of damage, the product must not be used further on. In the event of improper use, the guarantee and liability claim against the manufacturer shall lapse.


Information concerning which cables and accessories are approved for installation can be found at www.wenglor.com or are described in this manual.

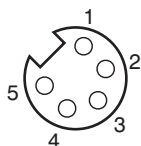
7.1. System Structure




7.2. Power Cable



Power In		
0 V	Pin 1	
0 V	Pin 2	
	Pin 3	
24 V max. 9 A	Pin 4	System
24 V max. 9 A	Pin 5	Digital I/O / Sensor



Power Out	
0 V	Pin 1
0 V	Pin 2
	Pin 3
24 V max. 9 A	Pin 4
24 V max. 9 A	Pin 5

The 7/8" plug is designed for a maximum current of 9 A per pin. This must be taken into account when looping the supply voltage.

The junction must be connected to a power supply of 18 to 32 V DC. The System/sensor supplies the connection with voltage and the Digital I/O provides the power supply of the digital I/O ports.

The voltage of the System must not be junctioned off during ongoing operation and hence must not be conducted via emergency stop circuits, since otherwise the junction and all connected Ethernet products will not be able to participate in the communication.

Measures must be taken in all cases to ensure that the supply voltage, measured at the remotest participant, does not fall short of the system supply voltage of 18 V DC.

To be complied with in reactive operation:

If the power supply of the digital I/O ports is merged with the voltage supply of the junction, there will then be the risk of a communication disruption in the event of a short-circuit on the I/O devices.

7.3. Functional Earth

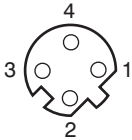
The FE connection is on the lower front edge of the junction. To ensure proper functioning in accordance with the EMC regulations specified in the data sheet, we recommend using our ground strap, which is included in the scope of delivery (for tightening torque see “Housing Dimensions” on page 13).

7.4. Industrial Ethernet Cable

wenglor provides a variety of preassembled industrial Ethernet cables.

To ensure cabling as simple and reliable as possible, we recommend using our preassembled industrial Ethernet cables.

Assignment of the Industrial Ethernet connection:

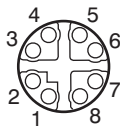


Pin	Function
1	TxD (+)
2	RxD (+)
3	TxD (-)
4	RxD (-)

7.5. Industrial Ethernet Cable with Power over Ethernet

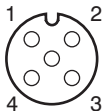
To ensure cabling as simple and reliable as possible, we recommend using our preassembled industrial Ethernet cables. In addition, several branches can be connected. The PoE ports (x2 – x6) can also be used for this purpose. Please note that the next branch must always be operated via the EtherCAT in port (x1). ZAT50NN01 field-assembly connectors see chapter “4.3. Supplementary products” on page 7) must be used for these connections.

Assignment of the Industrial Ethernet connection with PoE:



Pin	Function
1	TxD (+)
2	TxD (-)
3	RxD (+)
4	RxD (-)
5	PoE (+)
6	PoE (+)
7	PoE (-)
8	PoE (-)

7.6. Connecting Digital Sensors and Actuators

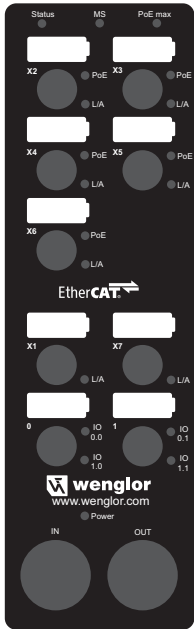


Pin	Function
1	24 V
2	Freely programmable input/output
3	0 V
4	Freely programmable input/output

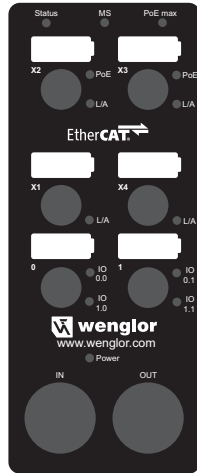
Sockets that are not used must be provided with caps, which are included in the scope of supply. Otherwise, the protection class IP67 cannot be guaranteed.

7.7. Diagnosis

Assignment example:



ZAC50CN01



ZAC50CN02

7.7.1 LED Display EtherCAT Device (ZAC50CN0x)



The status displays for the communication are marked on the junction with status and MS.

Designation	Condition	Function
Status	Green off	ESM state: Initialisation
	Green flashing	ESM state: PRE - Operational
	Flashing green once	ESM state: SAFE - Operational
	Green on	ESM state: Operational
	Red off	No Error
	Red on	Application controller failure
	Flashing red once	Local Error
	Flashing red twice	Process Data Watchdog Timeout/ EtherCAT Watchdog Timeout
	Red flashing	Red blinking Invalid Configuration
MS (Module Status)	Off	—
	Green	Operate Status
	Red	Device Error
	Red flashing	—
PoE max	Red	Maximum PoE performance reached
	Red flashing	PoE performance monitoring was junctioned off

The LED display on the M12 sockets displays the diagnosis for the corresponding socket.

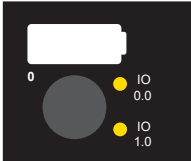


Designation	Condition	Function
PoE	Yellow	PoE in operation
	Yellow flashing	PoE function junctioned off
L/A	Off	No Ethernet device is connected to the port
	Green	An Ethernet device is connected to the port
	Green flashing	An Ethernet device which is currently communicating is connected to the port

The LED display on the M12 sockets displays the diagnosis for the corresponding socket.



Designation	Condition	Function
L/A	Off	No Ethernet device is connected to the port
	Green	An Ethernet device is connected to the port
	Green flashing	An Ethernet device which is currently communicating is connected to the port



Designation	Condition	Function	
IO 0.0/IO 1.0	Yellow	Input	UB at Pin 2/4
		Output	Junctioning output at UB Pin 2/4
	Red	Output	Short circuit at Pin 2/4

7.8. Operation on a Controller

If you want to commission the device when connected to a control system, please perform the following steps:

- Connect the branch to the supply voltage and to the control system via the EtherCAT in port (x1). You will find the matching connection equipment on the wenglor homepage.
- You will need the EtherCAT XML Device Description File (ESI-File EtherCAT Slave Information) which is available at **www.wenglor.com** › **Product World** › **Product search** (Order number) › **Download** › **Product Description Files**.
- The files should always be stored in the ESI directory of the respective master. If the Twin-CAT software is used, it should be stored in the folder "...\\IO\\EtherCAT\\" in the installation folder.
- The following example shows the steps that have to be carried out (example based on the TwinCat System Manager by Beckhoff):
- First, the list "Echtzeit Ethernet kompatible Geräte" (list of all real-time Ethernet-compatible devices) must be requested.
- Once the correct network card has been installed, new slave devices can be searched for in "E/A Geräte" (I/O devices). If all configurations are correct, the slave devices are now listed in the TwinCAT tree.
- The assemblies can now be switched into "Free Run" mode so that the local cycle runs independently of the pre-set master cycle.
- In the next step, the process data of the individual devices can be configured.

For a more detailed description of the different control systems and the installation of files or the network design, please refer to the help files of the corresponding control system.

8. Detailed description of the object directory for EtherCAT

8.1 I/O Direction Register (0x2010)

Index	Name	Default Value
0x2010:00	Highest sub-index supported	1
0x2010:01	I/O Direction	0x00

0x2010:01 Value range 1 Byte												
Bit	7	6	5	4	3		2		1		0	
Port	–	–	–	–	1, Pin 4		0, Pin 4		1, Pin 2		0, Pin 2	
Bit value	–	–	–	–	0	1	0	1	0	1	0	1
Event	–	–	–	–	Input	Output	Input	Output	Input	Output	Input	Output
Bit 4-7 invalid = „0“												

8.2 I/O Status Register (0x2020)

Index	Name	Default Value
0x2020:00	Highest sub-index supported	2
0x2020:01	I/O Error Status	0x00
0x2020:02	I/O Error Info	0x00

0x2020:01 Value range 1 Byte												
Bit	7	6	5	4	3		2		1		0	
Port	–	–	–	–	1, Pin 4		0, Pin 4		1, Pin 2		0, Pin 2	
Bit value	–	–	–	–	0	1	0	1	0	1	0	1
Event	–	–	–	–	no error	error	no error	error	no error	error	no error	error
Bit 4-7 invalid = „0“												

0x2020:02 Value range 1 Byte												
Bit	7	6	5	4	3		2		1		0	
Port	–	–	–	–	1, Pin 4		0, Pin 4		1, Pin 2		0, Pin 2	
Bit value	–	–	–	–	0	1	0	1	0	1	0	1
Event	–	–	–	–	Short-circuit to GND	Short-circuit to VCC	Short-circuit to GND	Short-circuit to VCC	Short-circuit to GND	Short-circuit to VCC	Short-circuit to GND	Short-circuit to VCC
Bit 4-7 invalid = „0“												

8.3 PoE Control (0x2030)

Index	Name	Default Value
0x2030:00	Highest sub-index supported	2
0x2030:01	Power Monitoring Control	FALSE (enabled)
0x2030:02	PoE Port Control	0x1f (ZAC50CN01) bzw. 0x03 (ZAC50CN02)

0x2020:01 Value range 1 Byte									
Bit	7	6	5	4	3	2	1	0	
Monitoring	–	–	–	–	–	–	–	on/off	
Bit value	–	–	–	–	–	–	–	0	1
Event	–	–	–	–	–	–	–	on	off
Bit 1-7 invalid = „0“									

0x2030:02 Value range 1 Byte													
Bit	7	6	5	4		3		2		1		0	
PoE-Port	–	–	–	X6		X5		X4		X3		X2	
Bit value	–	–	–	0	1	0	1	0	1	0	1	0	1
Event	–	–	–	off	on	off	on	off	on	off	on	off	on
Bit 5-7 invalid = „0“													

8.4 Webserver Access Control (0x2040)

Index	Name	Default Value
0x2040:00	Highest sub-index supported	1
0x2040:01	Highest sub-index supported	FALSE (enabled)

0x2040:01 Value range 1 Byte									
Bit	7	6	5	4	3	2	1	0	
Monitoring	–	–	–	–	–	–	–	lock/unlock	
Bit value	–	–	–	–	–	–	–	0	1
Event	–	–	–	–	–	–	–	unlock	lock
Bit 1-7 invalid = „0“									

9. Web-based Configuration

The Junction is equipped with a web-based set-up interface which operates independent of the operating system. Parameterizing of the Junction can conveniently be done using a standard web browser. The web server allows control-independent monitoring or creation of a test environment. The web server allows control-independent monitoring or a test environment to be set up. It is not needed for normal operation on the controller.

NOTE!

Communication via EoE (Ethernet over EtherCAT) is required in order to be able to access the integrated webserver's website. This is only possible via the mailbox communication of a PLC or a PC-based controller software such as TwinCAT®. All website settings can be made, if the product is in Pre-OP mode. For information on how to configure the network parameters please refer to the instructions "Start-Up-EtherCAT-Device"

(www.wenglor.com › **Product World** › **Product search** (Order number) › **Download** › **General instructions**) in the chapter "Displaying and working with the integrated web server". All further steps require an active mailbox and network communication.

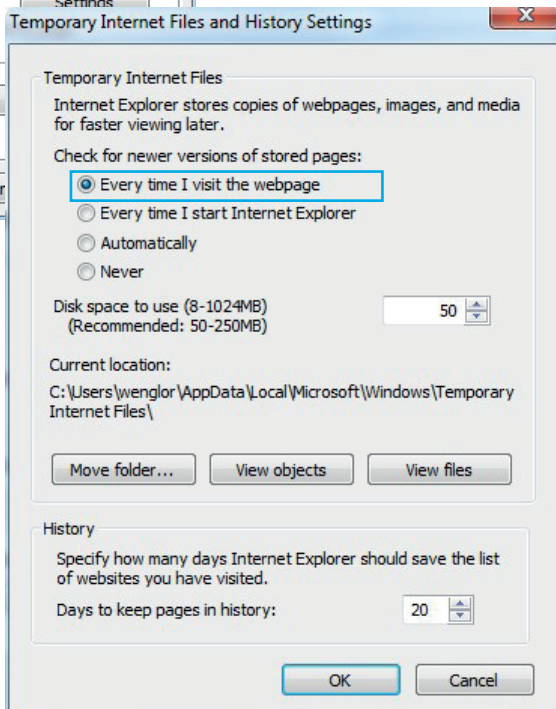
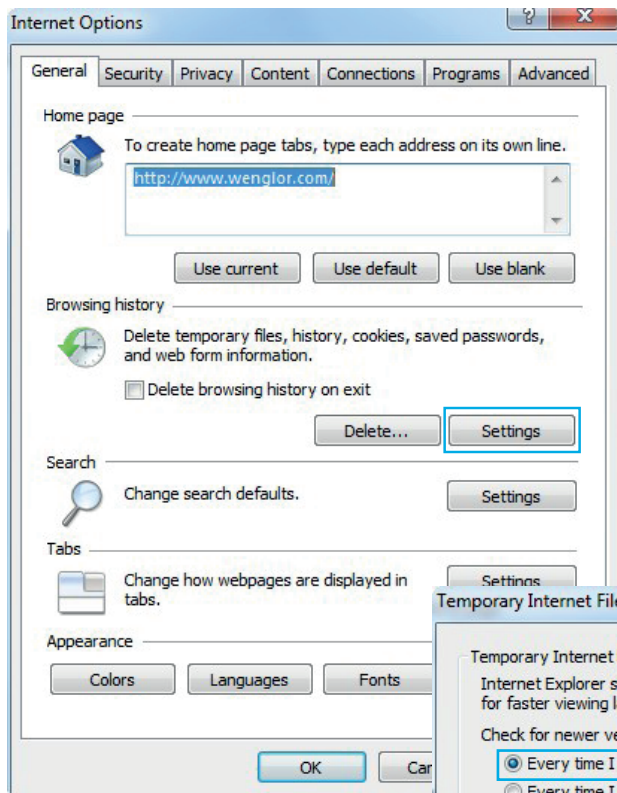
When operated with a controller, settings which have been changed via the website are overwritten by the controller or changes are only possible in the pre-op mode.



9.1. Call up the Administration Interface

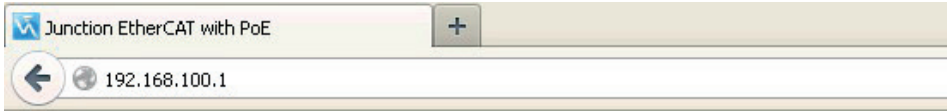
Launch a web browser. Enter the preset IP address of the Junction in the address bar of your browser and press enter To ensure that the browser displays the current website settings, the website in question must always be refreshed automatically in case of change. This setting must be changed browser-specific and is demonstrated here by means of Internet Explorer as an example. Under **Extras** → **Internet Options** → **Browsing history** → **Settings** the selection should be set to **Every time I visit the webpage**. Otherwise, any changes to the homepage might be displayed incorrectly.





In order to now be able to open the website of the Junction (in the example ZAC50CN01), the IP address must be entered in the address bar of the browser as described

Example: 192.168.100.1 (IP address set, for example, via TwinCAT® in the area EoE of the Junction)



The overview page **Device General** is not password-protected. If the pages of the device or port settings are accessed, a password prompt appears.

The following user data are preset in the delivery state:


User name: admin
Password: admin

The password can be changed on the page **Device Settings**.

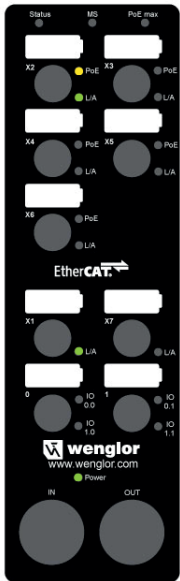
9.2. Overview page

- › General device
- › Device settings
- › Industrial Ethernet ports
- › Digital I/O ports

General device



Part number	ZAC50CN01
Product version	V1.1.0
Producer	wenglor sensoric GmbH
Description	Junction EtherCAT with PoE
Serial number	000100003
Realtime Ethernet Status	online
Device Type	0x00030191



© wenglor sensoric GmbH | [Impressum](#)

After the connection has been established, the overview page of the Junction is displayed.

Through the language selection, the website can be changed from English (delivery state) to German, Italian, French or Spanish.

9.3. Device settings

» General device

» Device settings

» Industrial Ethernet ports

» Digital I/O ports

Device settings

Network settings:-

IP-Adresse:

192.168.100.1

Subnet mask:

255.255.255.0

Standard gateway

192.168.100.21

Max. PoE Performance

30W

Currently reserved PoE performance

4 W

PoE Performance currently indicated

2.438 W

PoE Performance Supervision

ON

Password

Change

Reset

Reset

Status

MD

PoE max

X2

PoE

X3

L/A

PoE

L/A

X4

PoE

X5

L/A

PoE

L/A

X6

PoE

L/A

EtherCAT

X1

X7

L/A

L/A

0

1

IO 0.0

IO 0.1

IO 1.0

IO 1.1

wenglor

www.wenglor.com

Power



IN

OUT

© wenglor sensoric GmbH | Impressum

Display of the network settings and PoE parameters

PoE information (ZAC50CN01):

Max. PoE Performance Switch	30W 
PoE Performance currently	4 W
PoE Performance currently indicated	2.438 W
PoE Performance Supervision	ON 

The Junction continuously monitors the current PoE performance consumption. The website displays the maximum available PoE performance of the Junction and the currently reserved and outgoing PoE performance. Every PoE device registers in a specific PoE performance class when starting. This performance is then reserved in the Junction. Mostly, the maximum reserved performance is not demanded, however. By deactivating the PoE performance monitoring it is possible to optimally utilize the maximum PoE performance of the Junction.

If the PoE performance monitoring is deactivated, this can cause performance impairments of the device. In this case, the maximum PoE output performance must not exceed the maximum PoE performance of the Junction. If the performance monitoring is deactivated, this is displayed on the Junction by means of the PoE max-LED flashing red. During operation, the performance monitoring can be changed from inactive to active. Here, all PoE devices are restarted automatically in order to save the reserved performance of the individual ports.

Change password:

<input type="password"/>	<input type="button" value="Change"/>
--------------------------	---------------------------------------

An additional window opens, in which the new password can be entered.

Please note: If the password has been forgotten, the delivery state of the Junction can only be restored by means of a reset at the controller using the object “Restore Default Parameter 0x1011”.

Reset:

<input type="button" value="Reset"/>	<input type="button" value="Reset"/>
--------------------------------------	--------------------------------------

The following settings can be reset to the delivery state by pressing the “Reset” button.

- Parameter of the digital I/O ports: All digital I/O ports are switched to input
- Parameter PoE: PoE monitoring is switched to one and on all ports
the PoE power supply is activated
- The password is reset to the delivery state (“admin”)

Please note: The network settings are not reset hereby! They are still specified via the controller (EoE).

9.4. Industrial Ethernet Ports Settings

General device

Device settings

Industrial Ethernet ports

Digital I/O ports

Industrial Ethernet ports

PoE Port X2	PoE Port X3	PoE Port X4	PoE Port X5	PoE Port X6
Port X1	Port X7			

Status

MS

PoE max

X2

X3

X4

X5

X6

X7

X8

X9

X10

X11

X12

X13

X14

X15

X16

X17

X18

X19

X20

X21

X22

X23

X24

X25

X26

X27

X28

X29

X30

X31

X32

X33

X34

X35

X36

X37

X38

X39

X40

X41

X42

X43

X44

X45

X46

X47

X48

X49

X50

X51

X52

X53

X54

X55

X56

X57

X58

X59

X60

X61

X62

X63

X64

X65

X66

X67

X68

X69

X70

X71

X72

X73

X74

X75

X76

X77

X78

X79

X80

X81

X82

X83

X84

X85

X86

X87

X88

X89

X90

X91

X92

X93

X94

X95

X96

X97

X98

X99

X100

EtherCAT

wenglor

www.wenglor.com

Power

IN

OUT

© wenglor sensoric GmbH | Impressum

The page **Port Settings/Industrial Ethernet Ports** provides an overview of the individual ports of the Junction. You can switch between the individual ports using the tab on the uppermost level. The Industrial Ethernet ports contain information on the EtherCAT Port status and invalid frames as well as an error counter of the EtherCAT input frames.

PoE Port X2 settings

PoE Port X2	PoE Port X3	PoE Port X4	PoE Port X5	PoE Port X6
Port X1	Port X7			

EtherCAT port state

Invalid frames

RX Error Counter

PoE in service

Declared power

Performance currently displayed

ON

In addition to the information on packages, it is possible to activate or deactivate the PoE power supply individually for each PoE port. On the webpage, the amount of PoE performance registered and actual outgoing performance is also documented for each PoE port.

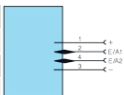
9.5. Digital I/O Ports Settings

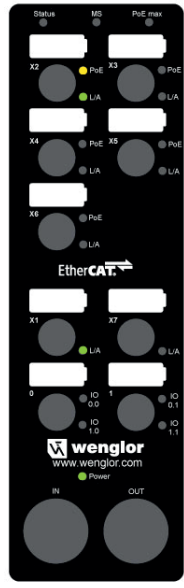
The Junction has 2 ports with two digital inputs/outputs each. The digital inputs/outputs are parameterized via the page **Digital I/O Ports**.

- › General device
- › Device settings
- › Industrial Ethernet ports
- › Digital I/O ports

Port 0 settings
Port 0 Port 1

Configuration Pin2:	IN	<input type="checkbox"/>		
Configuration Pin4:	IN	<input type="checkbox"/>		
Switching Status Pin2:	0V	<input type="checkbox"/>		
Switching Status Pin4:	0V	<input type="checkbox"/>		





© wenglor sensoric GmbH | Impressum

Please note: Parameterization of the inputs/outputs is only possible with the device in Pre-Op mode.

Pin 2 and pin 4 can each be configured as input or output. If the pin is configured as output, the pin can be set manually to 0 V or UB. A red flashing LED indicates a short-circuit on the respective pin.

10. Maintenance Instructions

This wenglor junction is maintenance-free.

Do not use any solvents or cleaning agents that could damage the device when cleaning the junction.

The following gives a brief overview:

- Always use clean water for cleaning by using neutral detergents together with a soft, non-scratch, non-abrasive and non-fibrous cloth – strong pressure or rubbing must be avoided.
- Coarse soiling of greasy, oily or sooty surfaces and the removal of adhesive residues can be cleaned using aromatic-free white spirit or isopropyl alcohol (IPA).
- Use cleaning agent at a maximum of 25 °C.
- Never use steam cleaners.
- Never use solvents with aromatic compounds, alcohol, ketones, ester, glycol ether or halogenated hydrocarbons for cleaning.
- When cleaning with liquids, all open ports must be locked with the protective caps provided.

11. Proper Disposal

wenglor sensoric gmbh does not accept the return of unusable or irreparable products. Respectively valid national waste disposal regulations apply to product disposal.

12. EU Declaration of Conformity

The EU declaration of conformity can be found on our website at www.wenglor.com in download area.

The wenglor sensoric gmbh, hereafter called wenglor for short, points out that notes and information in this operating manual may be subject to constant development and technical changes and are therefore only published under reservation.

This operating manual does not represent a promise by wenglor with regard to the described processes or specific product characteristics. wenglor does not assume liability for printing errors or textual errors. wenglor shall only assume liability if it can be proved that wenglor had knowledge about for the errors in question at the time of creating the operating manual. This operating manual is only a general description of technical processes whose implementation does not apply to every individual application. If you have specific questions regarding this, you can always contact our technical support.

The information in this operating manual can be changed without advance announcement. No part of this document or extracts from it may be copied, reproduced or translated into another language without the prior written permission of wenglor sensoric gmbh.

© wenglor sensoric GmbH
www.wenglor.com

EtherCAT® is registered trademark and patented technology, licenced by Beckhoff Automation GmbH, Germany.