

# Central Processing Units xCPU 201-TW

## Safety Information and Instructions

### IMPORTANT

To avoid personal injury and device damage, the following instructions must be followed.

- Please read the Module Manual carefully before using the product. The Manual and all corresponding documents can be downloaded from the Selectron Information Platform Symphony Suite. For registration and download, visit <http://cockpit.selectron.ch/download>.
- Allow only appropriately trained personnel to handle the devices and pay attention to the ESD protection measures.
- Usage restriction: The designated product may only be used in an industrial environment (Class A product) in accordance with specifications in the manuals.
- To ensure a ground connection, a metallic top hat rail must be used. Due to the grounding function of the top hat rail, it must neither be plastic-coated nor anodized. In addition, the top hat rail must be grounded with a large surface area and low-impedance connection.
- To avoid the risk of destroying a module, it must never be mounted or removed under live voltage.
- Before supplying any voltage, make sure that the power supply connector is connected in order to follow the EMC standards.
- For M12 Ethernet connections, the cables and the connection plugs must be shielded.

## General Information

This document is applicable for the following Selectron products:



**CPU 201-TW** (Art. No. 44410001) Central Processing Unit



**SCPU 201-TW** (Art. No. 44410004) SIL Central Processing Unit

### Manufacturer

Selectron Systems AG | Bernstrasse 70 | 3250 Lyss | Switzerland | [www.selectron.ch](http://www.selectron.ch)

### Package Content

The package contains:

| Article                          | Number |
|----------------------------------|--------|
| Device CPU 201-TW or SCPU 201-TW | 1      |

Available Accessories see [Page 6](#).

### State of Delivery

In the state of delivery, the xCPU has no fixed IP Address assigned to it. The xCPU is delivered with an initial Maintenance System installed. Please refer to the Module Manual for further information.

# Central Processing Units xCPU 201-TW

## Technical Data

| Environmental conditions                                             |                  |
|----------------------------------------------------------------------|------------------|
| Degree of Protection (IP Code according to IEC 60529)                | IP20             |
| Operating temperature according EN50155                              | -40...+70 °C     |
| Storage temperature                                                  | -50...+85 °C     |
| Dry Heat test, extended Temperature Range (10 Minutes); EN50155:2021 | +95 °C           |
| Operation altitude (max. with derating)                              | 5000 m. a. s. l. |
| Operation altitude (no derating)                                     | 2000 m. a. s. l. |

| Power Supply US                                   |                   |
|---------------------------------------------------|-------------------|
| Nominal Supply Voltage (US)                       | 24 ... 110 V DC   |
| Limit Values (UN * 0.7) - (UN * 1.25)             | 16.8 ... 138 V DC |
| Limit Values (UN * 0.6) - (UN * 1.4) < 1s         | 14.4 ... 154 V DC |
| Reverse polarity protection                       | yes               |
| Power dissipation (typical, standalone operation) | 6 W               |
| Power dissipation (max., standalone operation)    | 10 W              |

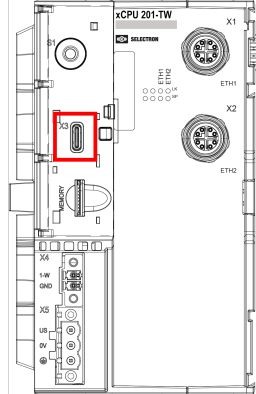
## Power Supply

**WARNING**



Dangerous voltage (direct voltages above 70 V DC)  
**Risk of death by electric shock**

- Always disconnect the device from the power source before servicing.
- Do not operate the device with damaged cables or plugs.
- Ensure the power supply matches the voltage rating indicated on the device label.
- Only qualified personnel should perform maintenance or installation.
- Keep the device away from water or moisture to prevent electrical hazards.



|                     |                                               |  |
|---------------------|-----------------------------------------------|--|
| Purpose/Features    | Supply voltage of 24...110 V DC to the module |  |
| Labeling on device  | X3                                            |  |
| Socket Type / Pitch | 3-pin / 5.08 mm                               |  |
| Connector/Plug Type | TBA 250/PS                                    |  |
| Fixation            | 2 × Screw M2.5                                |  |
| Torque              | 0.25 Nm ... 0.3 Nm                            |  |

| Pin | Signal   | Description                  |
|-----|----------|------------------------------|
| 1   | US       | Supply Voltage 24...110 V DC |
| 2   | 0V       | Reference point              |
| 3   | Earthing | Protective ground            |

### Grounding

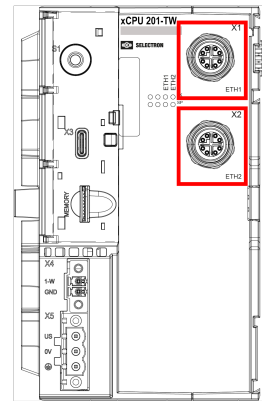
Functional grounding is provided through the device housing. The earth connection at the power supply connector serves exclusively as protective grounding.

### Power Consumption

The typical power consumption of the module is typically 6 W (max. 10 W).

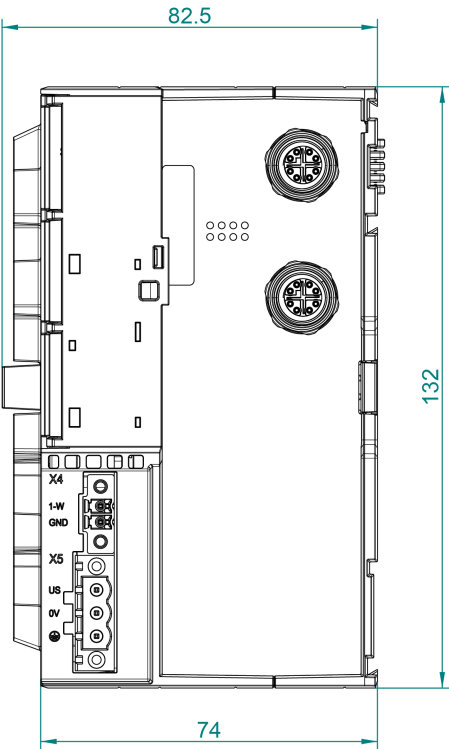
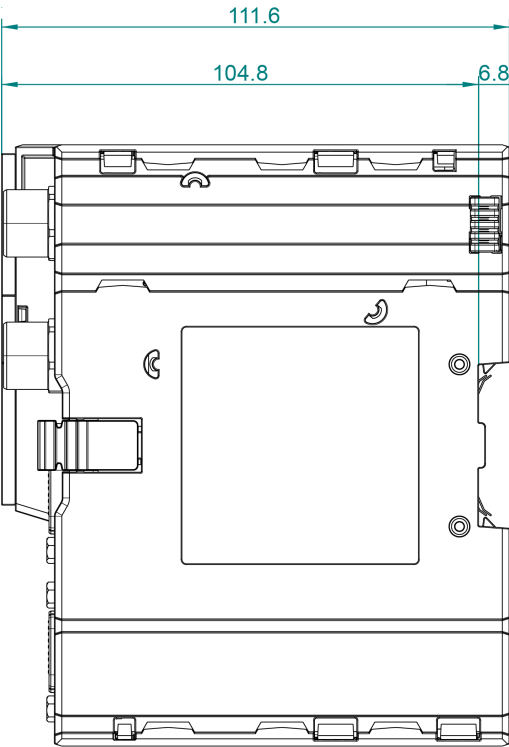
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## Ethernet Interfaces X1/X2



|                           |                                                                |
|---------------------------|----------------------------------------------------------------|
| Purpose/Features          | Programming + Data Interface, 1 Gb-Ethernet (Gigabit Ethernet) |
| Implementation / Labeling | X1: Ethernet Interface 1 / X2: Ethernet Interface 2            |
| Socket Type               | Push-Pull (M12 Screw compatible), X-coded                      |
| Connector/Plug Type       | CAM 201 / CAM 202                                              |
| Fixation                  | Push-Pull tool-free fast locking                               |

## Dimensions



# Central Processing Units xCPU 201-TW

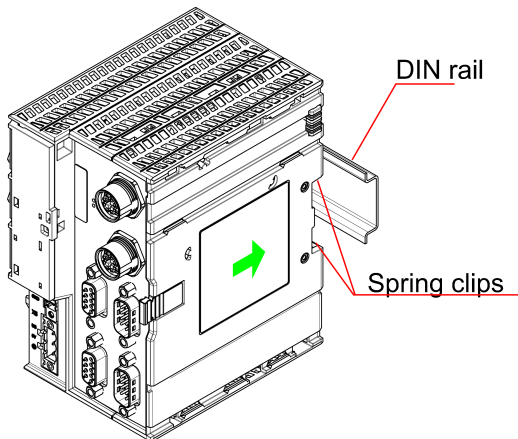
## Installation / Mounting

### Required tools and accessories:

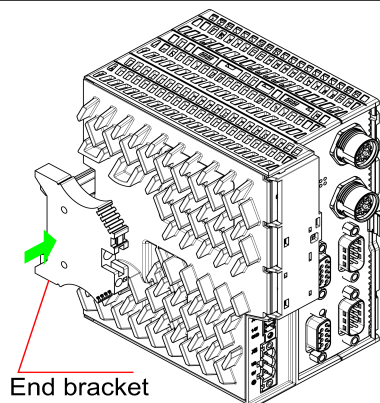
- Slotted screwdriver (3.0 × 100) for the fixation of the end bracket.
- End bracket EBS 270/TS for the fixation on the left side of the module.

#### **i** NOTE

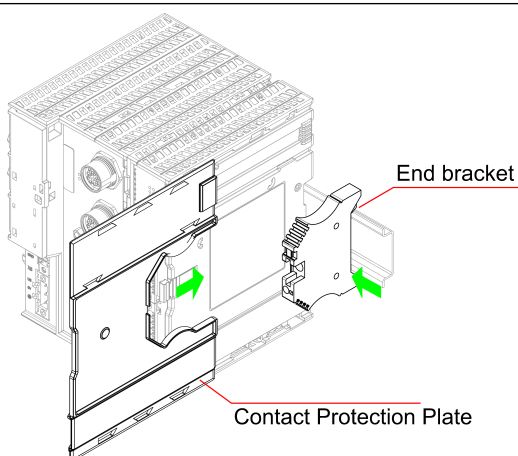
For the wiring it is recommended to temporarily place a flat plate on the upper ventilation slots as protection against the ingress of foreign materials (e. g. insulation residues). After wiring, the plate must be removed again for proper operation (air passage must be free during operation).



Hook the module with the upper spring clip (on the backside) on the DIN rail. Slightly push the lower part of the module until the lower spring clip snaps onto the DIN rail.



From the left side, mount the end bracket on the DIN rail and move it to fully touch the housing of the module. Use a slotted screwdriver (3.0 × 100) to tighten the fixation screw of the end bracket.



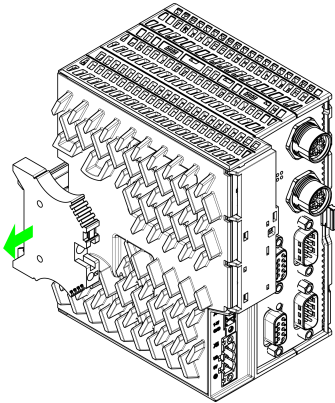
In case the xCPU is operated in standalone mode, mount the Contact Protection Plate on the right side of the xCPU.

#### **i** NOTE

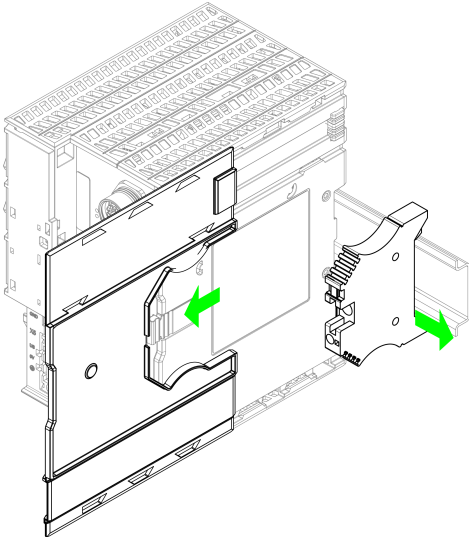
Please refer to Module Manual for complete and detailed installation instructions.

## Central Processing Units xCPU 201-TW

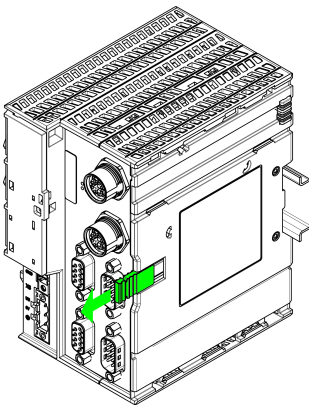
### Deinstallation



Turn off the Power Supply of the module to ensure absence of voltage remove the power supply connector.  
Remove all Ethernet connectors from the module.  
Remove the end bracket on the left side of the module.



Remove the end bracket and Contact Protection Plate on the right side of the module.



Pull the Lock/Unlock Lever and remove the module from from its DIN rail.

#### **i** NOTE

Please refer to Module Manual for complete and detailed installation instructions.

# Central Processing Units xCPU 201-TW

## Storage and Disposal

### Storage of the Equipment

The rooms in which the **packaged** equipment is stored must have the following properties:

- well ventilated and vibration free
- Protection against moisture, frost, heat, dust, and sand (for temperature values, see the Technical Data chapter)
- Protection from vermin, rodents, termites, etc.
- the relative humidity must not fall below 20% and must not exceed 75%
- the relative humidity must not change by more than 15% within 24 hours

### Decommissioning and Disposal

At the end of their service life, the corresponding modules must be replaced with new ones in a professional manner and the old ones disposed of according to local, regional and national regulations.

The modules and components comply with EU Directive 2011/65/EU RoHS.

Electronic waste must be disposed of according to the current legal regulations of the respective countries. In addition, it is possible to send old equipment to Selectron Systems AG for disposal.

## Available Accessories

| Product Name | Art. No. | Description                                                                                                                               |
|--------------|----------|-------------------------------------------------------------------------------------------------------------------------------------------|
| TBA 250/PS   | 44470009 | Connection terminal block with 3 positions for Power Supply, Push-in spring connection, Screw locking mechanism                           |
| TBA 260/1-W  | 44470010 | Connection terminal block with 2 positions to be used for Place-bound Coding (1-wire), Push-in spring connection, Screw locking mechanism |
| EBS 270/TS   | 44470011 | End bracket for Horizontal Fixation                                                                                                       |
| CAM 201      | 44470016 | Ethernet Connector M12 (X-coded) Push-Pull/Screw, straight                                                                                |
| CAM 202      | 44470017 | Ethernet Connector M12 (X-coded) Push-Pull/Screw, angled                                                                                  |
| CAM 806-T    | 44130179 | Ethernet Connector M12 ( X-coded), rapid interlock, straight                                                                              |
| ECA 803-T    | 44130178 | Ethernet adapter cable, M12/RJ45, X-coded, 2 m                                                                                            |
| CBA 201      | 44470015 | Cable Bundling Aid                                                                                                                        |
| CPP 201      | 44470012 | Contact Protection Plate                                                                                                                  |
| SKT 201-T    | 44470020 | Sealing Kit                                                                                                                               |