

# TDU series

Touch Display Units

Connection guidelines



Improve  
Tomorrow



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# 1. About the Connection guidelines

## 1.1 Symbols and notation

### Symbols for general notes

**NOTE** This shows general information.



#### More information

This shows where you can find more information.



#### Example

This shows an example.



#### How to ...

This shows a link to a video for help and guidance.

## 1.2 Symbols for hazard statements



### DANGER!



#### This shows dangerous situations.

If the guidelines are not followed, these situations will result in death, serious personal injury, and equipment damage or destruction.



### WARNING



#### This shows potentially dangerous situations.

If the guidelines are not followed, these situations could result in death, serious personal injury, and equipment damage or destruction.



### CAUTION



#### This shows low level risk situation.

If the guidelines are not followed, these situations could result in minor or moderate injury.

### NOTICE



#### This shows an important notice

Make sure to read this information.

## 1.3 Intended users

These are the **Connection guidelines** for communication between the Touch Display Unit (TDU), and a variety of controllers.

The manual is for the designer who creates applications that use the TDU.



**More information**

See also [TDU 107 Core Installation Instruction](#) and [TDU 107 Extended Installation Instruction](#) for power supply connections and mounting of TDU units.



**More information**

See the [TDU Operator's Manual](#) for modes of operation, other functions, warnings and safety.

## 1.4 Legal information

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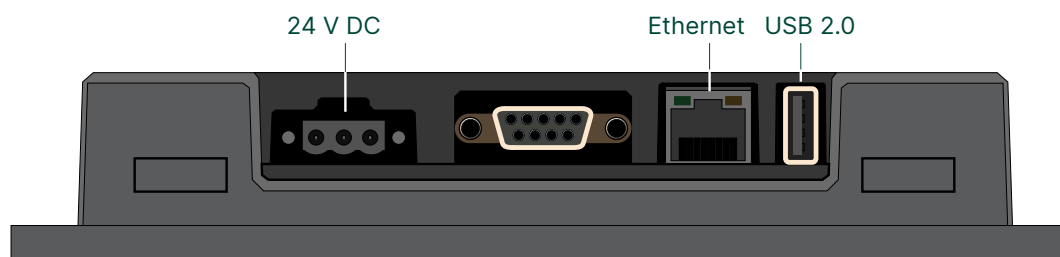
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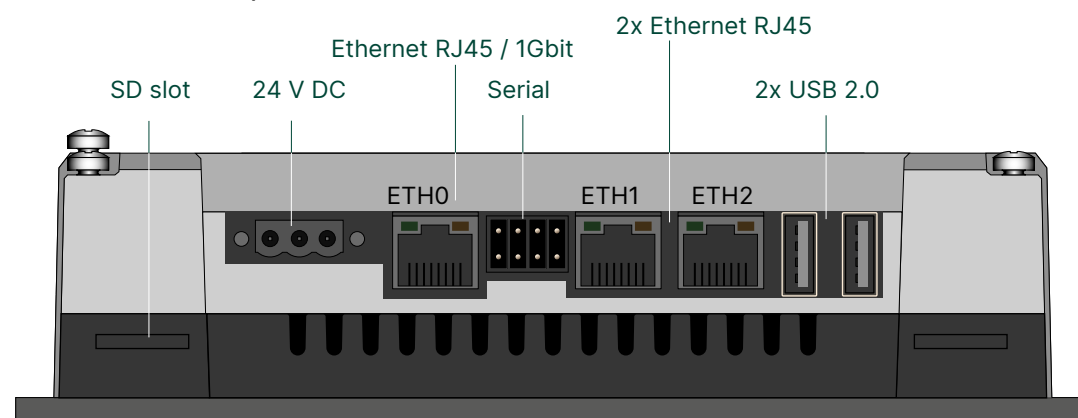
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## 2. Connections

### TDU 107 Core connections



### TDU 107 Extended, TDU 110 Extended and TDU 115 Extended connections



## 2.1 Ethernet cable requirements

The cables must not be longer than 100 metres from point-to-point.

The cable bend radius must not be tighter than the minimum bend radius specified by the cable manufacturers.

We recommend that you always follow the cable manufacturer's bend radius requirements and use velcro-strips (and not cable-ties) for the Ethernet cables.

## 2.2 Direct connection

Connect the TDU directly to the DEIF controller for automatic functionality.

TDU model	Number of Ethernet ports	Comments
Core	1	
Extended	2	Bridged ports (ETH0 and ETH1)

**NOTE** For dynamic host configuration protocol (DHCP) you must use TDU Extended and connect the controller to ETH2 on the TDU Extended.

Direct connection

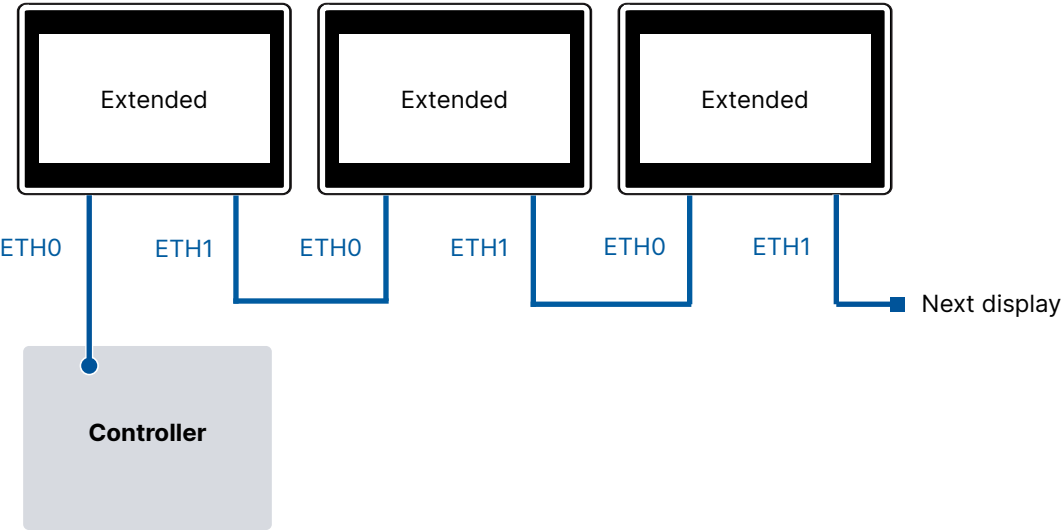


2.3 Multiple display connection

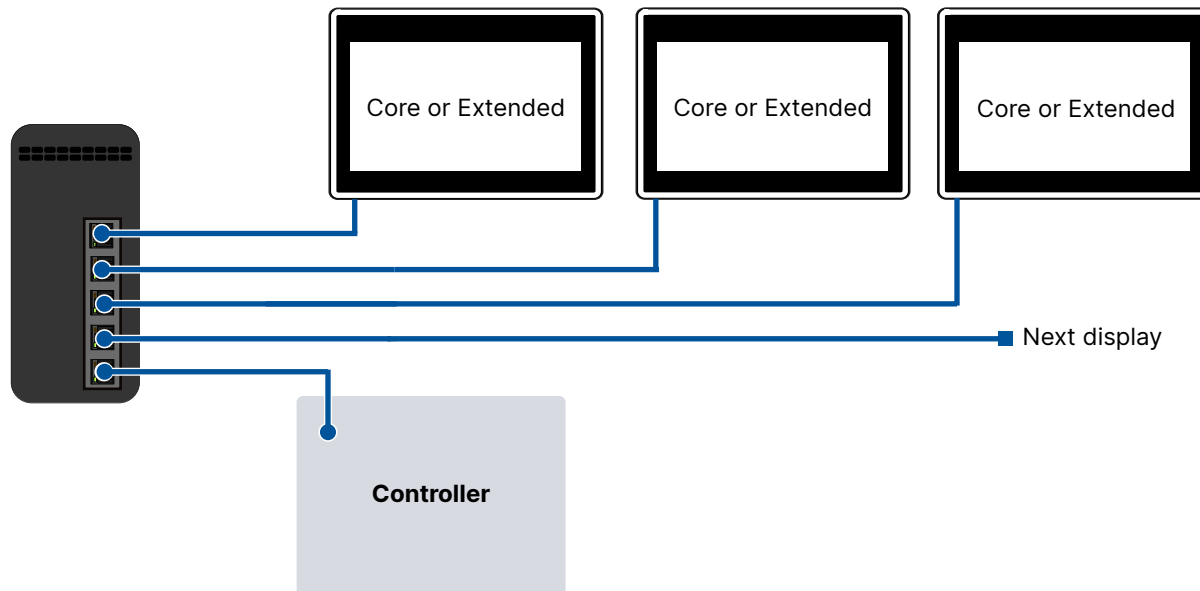
Up to 10 displays can be connected to a single controller.

Series connection

The series connection is only possible with TDU Extended models. All displays act as the primary (master) display.

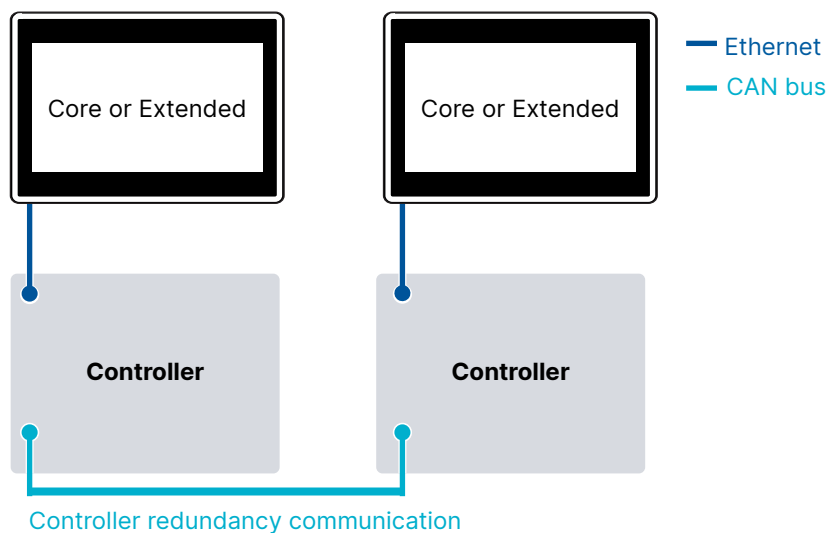


## Ethernet switch connection



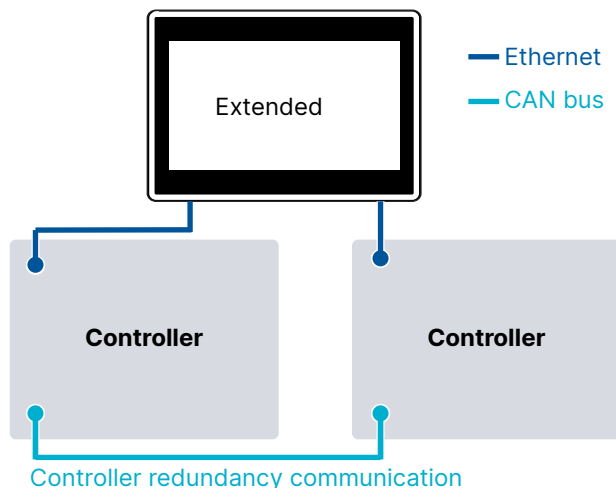
## 2.4 Multiple controller connection

### Redundant controller connection with two displays



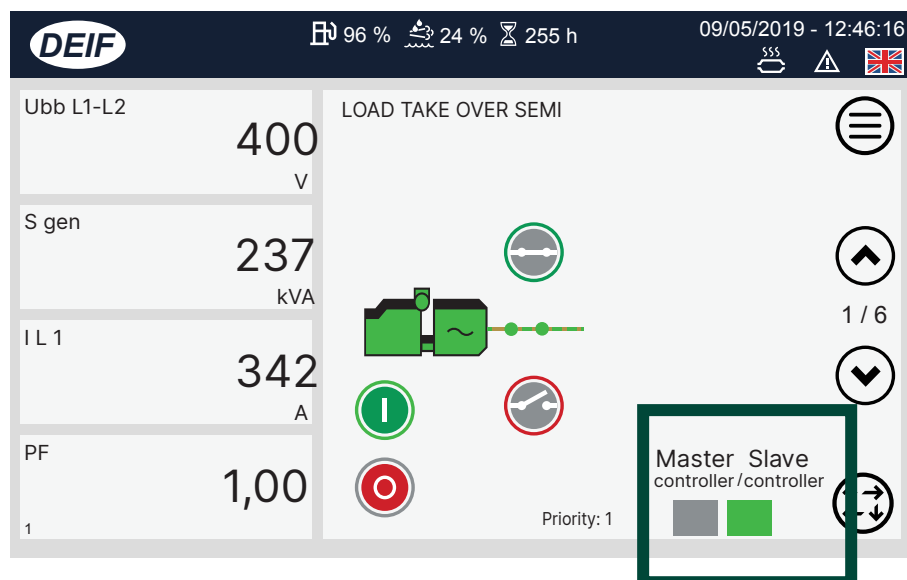
Each controller is connected to one TDU. No redundancy configuration is needed in the TDUs.

## Master and slave connection with one TDU Extended



You can connect one TDU to both the master (primary) and the redundant controller. Configure the IP addresses for the *Master* and *Slave* controllers in the *Communication settings* box (*Setup > Connect to controller*).

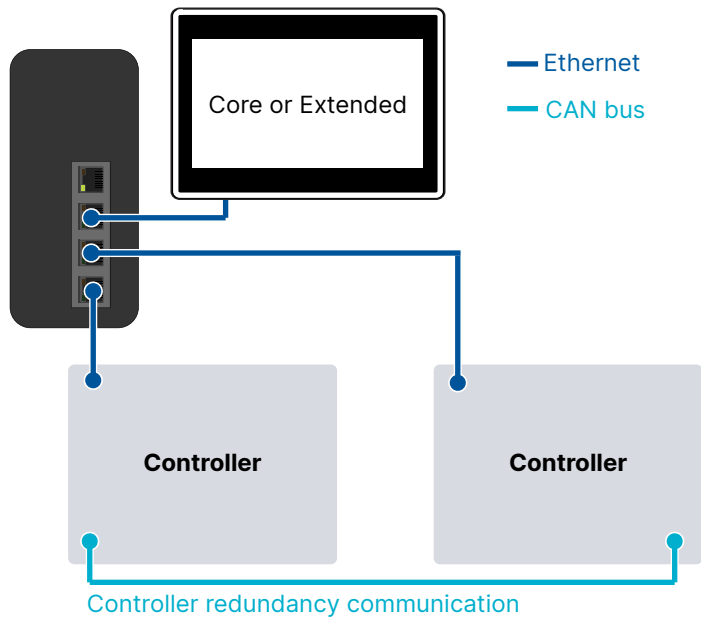
When the *Master/slave controller manual switch* is enabled, the TDU home screen has two buttons that show the active controller. You can use these buttons to change the active controller.



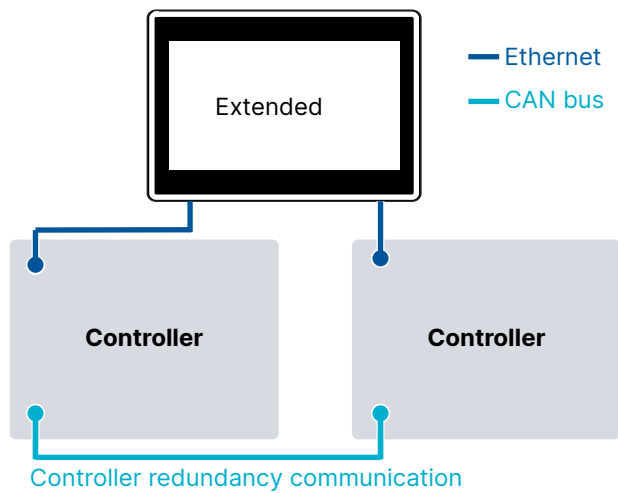
### More information

See *Control panel configuration settings* in the [TDU Operator's manual](#) for how to configure the Master/slave controller manual switch.

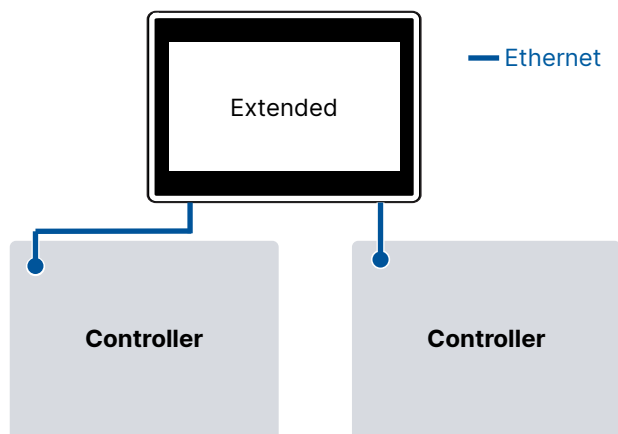
### Ethernet switch master and slave connection with one display



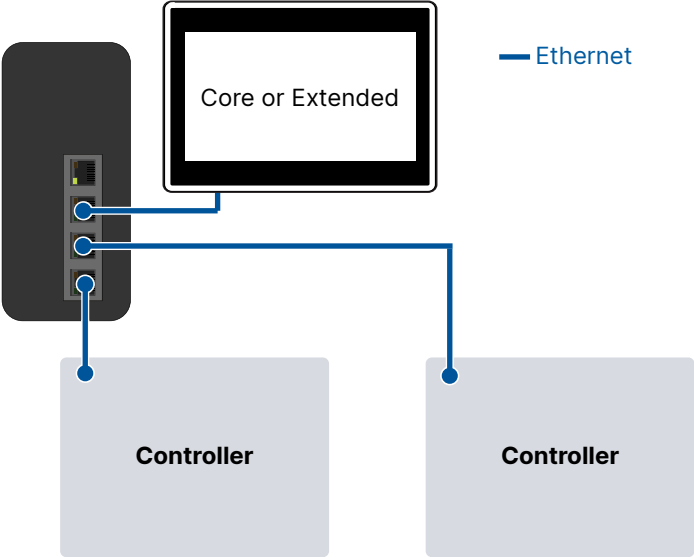
### Master and slave direct connection with one TDU Extended



### Two independent controllers with one TDU Extended



Ethernet switch connection with two or more independent controllers and one display

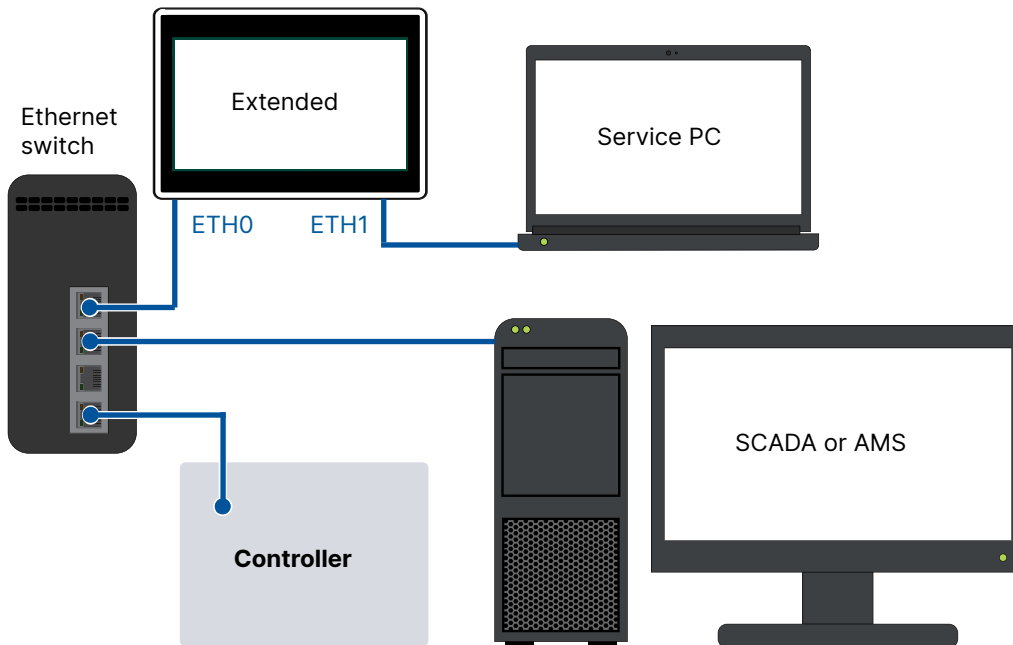


## 3. Data transfer loads

### 3.1 High data transfer loads

Connections that place a high data transfer load on the controller (for example, a SCADA system) should be connected to the controller through a switch.

#### Recommend wiring to connect a SCADA system to a controller



### 3.2 Low data transfer loads

For setups that place a low data transfer load on the controller, connect the TDU Extended model directly to the controller and a service PC.

