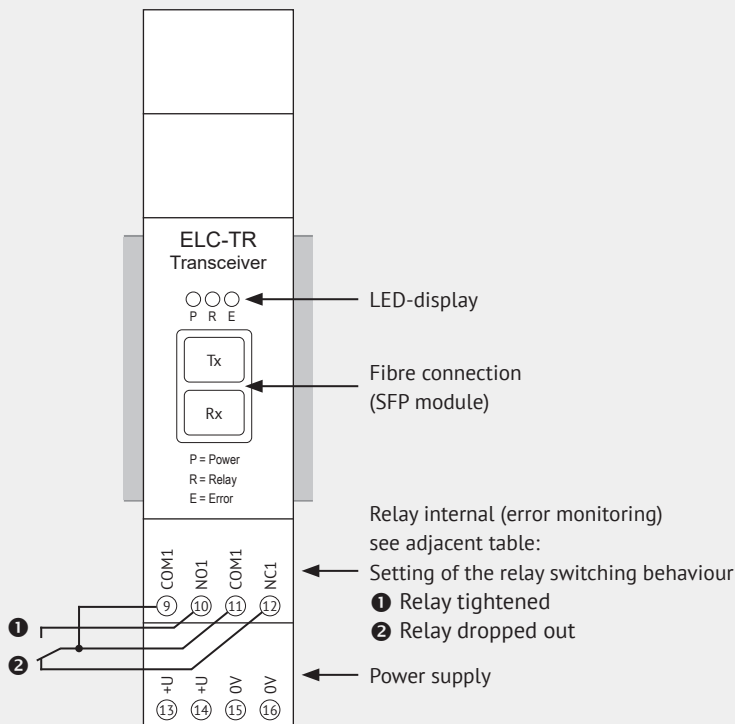


Transceiver ELC-TR-F



Safety Instructions



- Only connect or disconnect devices at the bus in a power-off state!
- Installation and commissioning may only be carried out by specialist companies or suitably qualified personnel and in accordance with the guidelines and recognised rules of technology!
- For settings on the device, it must first be disconnected from the power supply!
- Ensure that suitable ESD protection measures (auxiliary equipment, earthing, etc.) are in place!
- Use suitable tools!

Setting of the relay switching behaviour

Jumper position	N	Er
No error	1	2
Error	2	1

Installation Notes



The maximum number of extension units is defined by jumpers on the ELC-TR-F transceiver. The jumper settings must be adjusted accordingly if the system is subsequently expanded.

**Both transceivers (transmitter and receiver station) must be configured identically. Please note that the configuration affects the signal transmission (more information in the datasheet).**

When opening the housing to change the jumper positions, it is essential to ensure ESD protection and take appropriate measures!

Grip the jumper with insulated tweezers or flat nose pliers.

Extension units are attached to the side of the transceiver:

- Transmitter extensions (TX-Ext.) on the **left** side of the transceiver
- Receiver extensions (RX-Ext.) to the **right** side of the transceiver

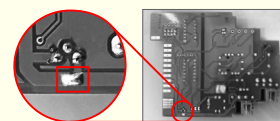
When attaching the extension units, make sure that compatible units are attached in the same position. The type of device at position no. „n“ to the left of the transceiver (transmitter station) must therefore be compatible with the type at position no. „n“ to the right of the transceiver (receiver station).

The compatibility of the extensions can be seen in the adjacent matrix.

If one (or more) extension unit(s) with integrated power supply IRM (e.g. ELC-SD4AC-IRMx or ELC-ED4K-IRMx) is (are) subsequently installed at a station, for the ELC-TR-F transceiver the shown solder bridge on the bottom side of the circuit board must be **opened**. Therefore you will need a soldering iron.

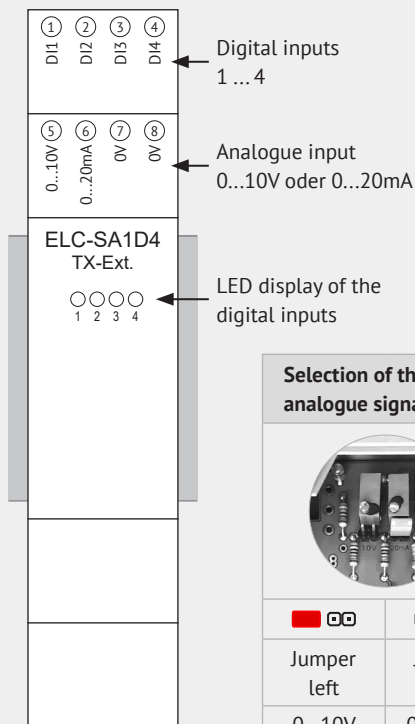
Max. number of extensions	2	4	8	16

	EA1D4	ED16	ED4K	ED4S02
SA1D4	•			
SD16		•		
SD4AC			•	
SD4DC			•	
SD4S02				•

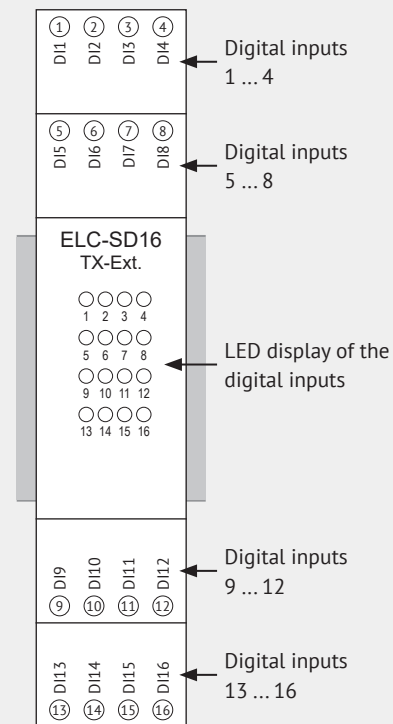


The maximum recommended number of extension units depends on the power consumption. This applies in particular to the ELC-ED16 expansion units if the outputs are subjected to a higher load (e.g. control of coupling relays) or if several ELC-ED4K are connected. Please refer to the data sheet.

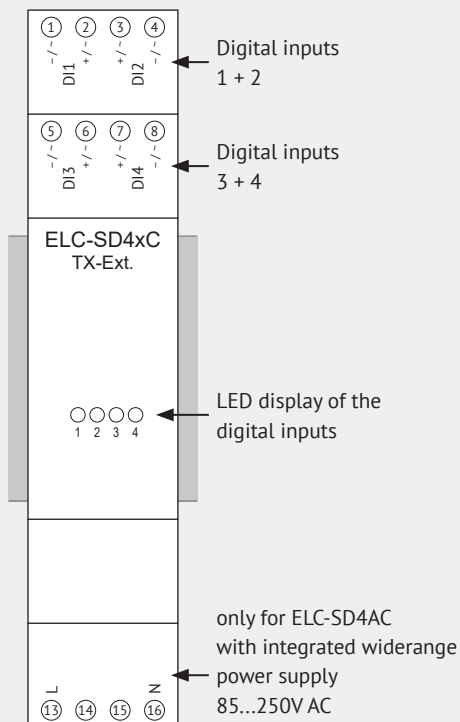
**Transmitter Extensions ELC-SA1D4**



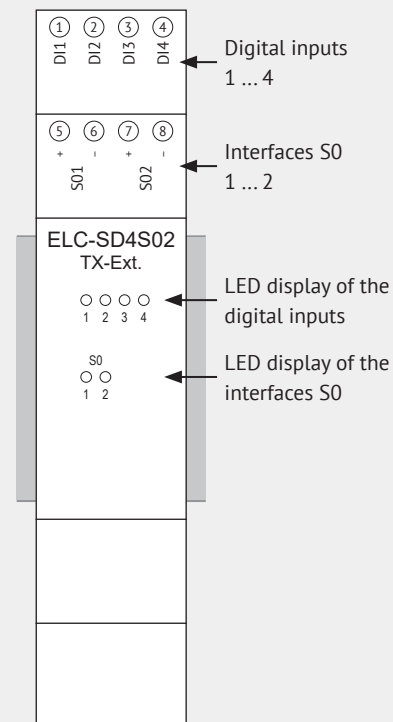
**Transmitter Extensions ELC-SD16**



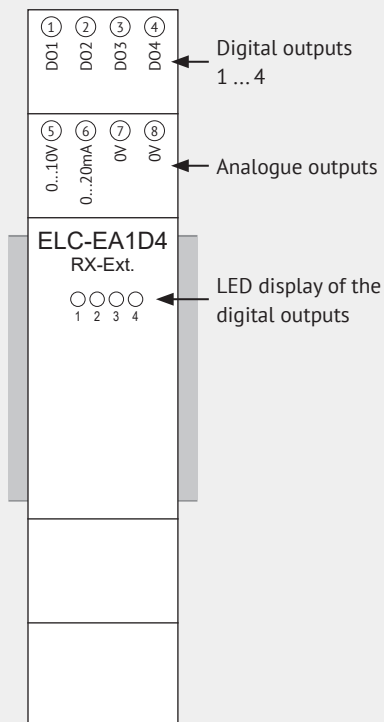
**Transmitter Extensions ELC-SD4AC / ELC-SD4DC**



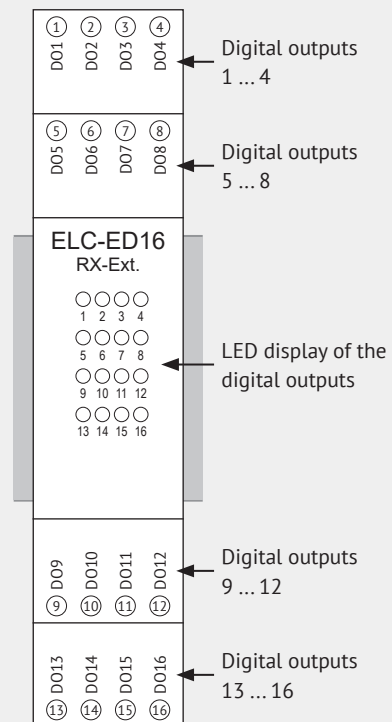
**Transmitter Extensions ELC-SD4S02**



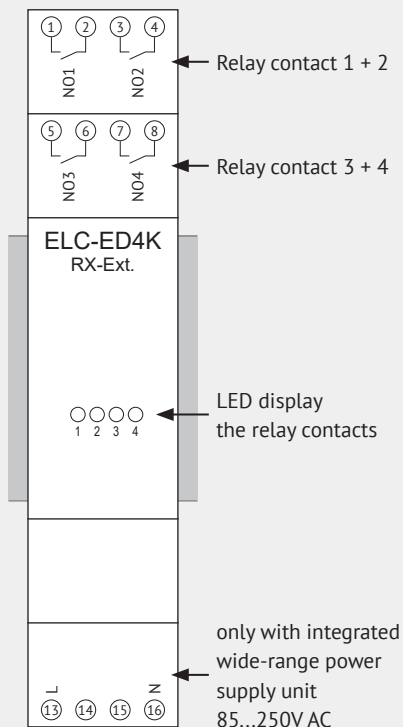
Receiver Extensions ELC-EA1D4



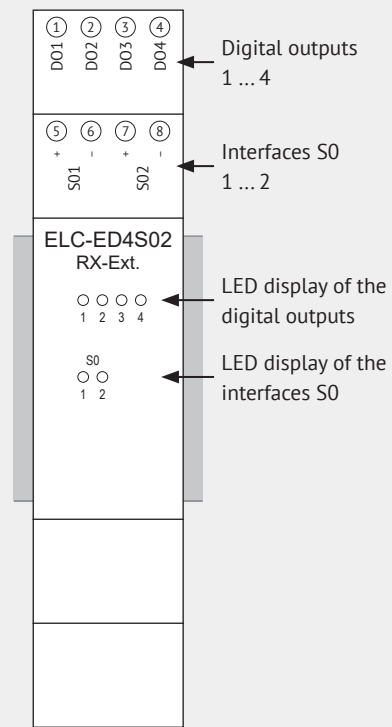
Receiver Extensions ELC-ED16



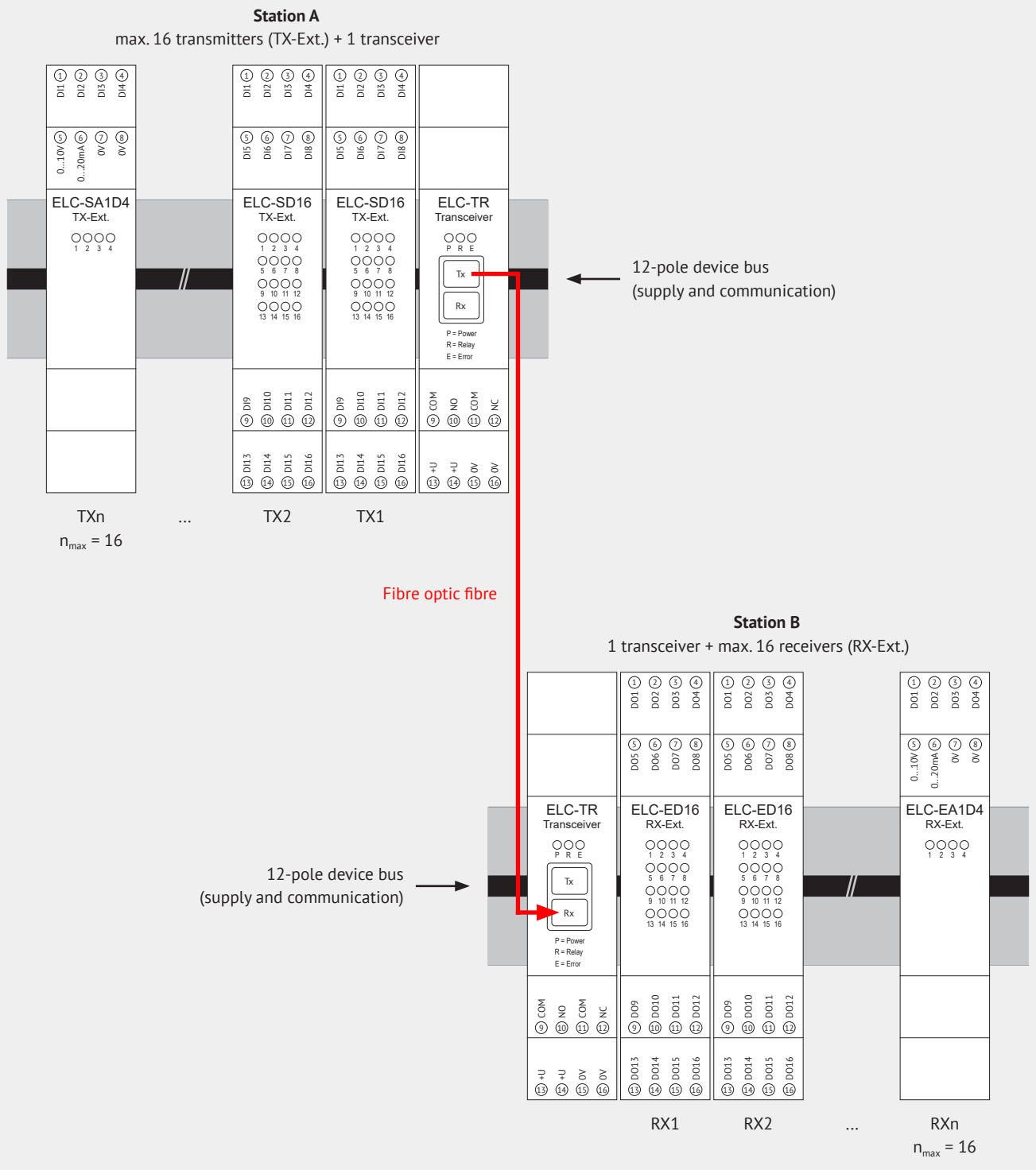
Receiver Extensions ELC-ED4K



Receiver Extensions ELC-ED4S02



Unidirectional point-to-point transmission



**i** Example of a correct installation ✓

TX1 = ELC-SD16 ⇨ RX1 = ELC-ED16

TX2 = ELC-SD16 ⇨ RX2 = ELC-ED16

TXn = ELC-SA1D4 ⇨ RXn = ELC-EA1D4

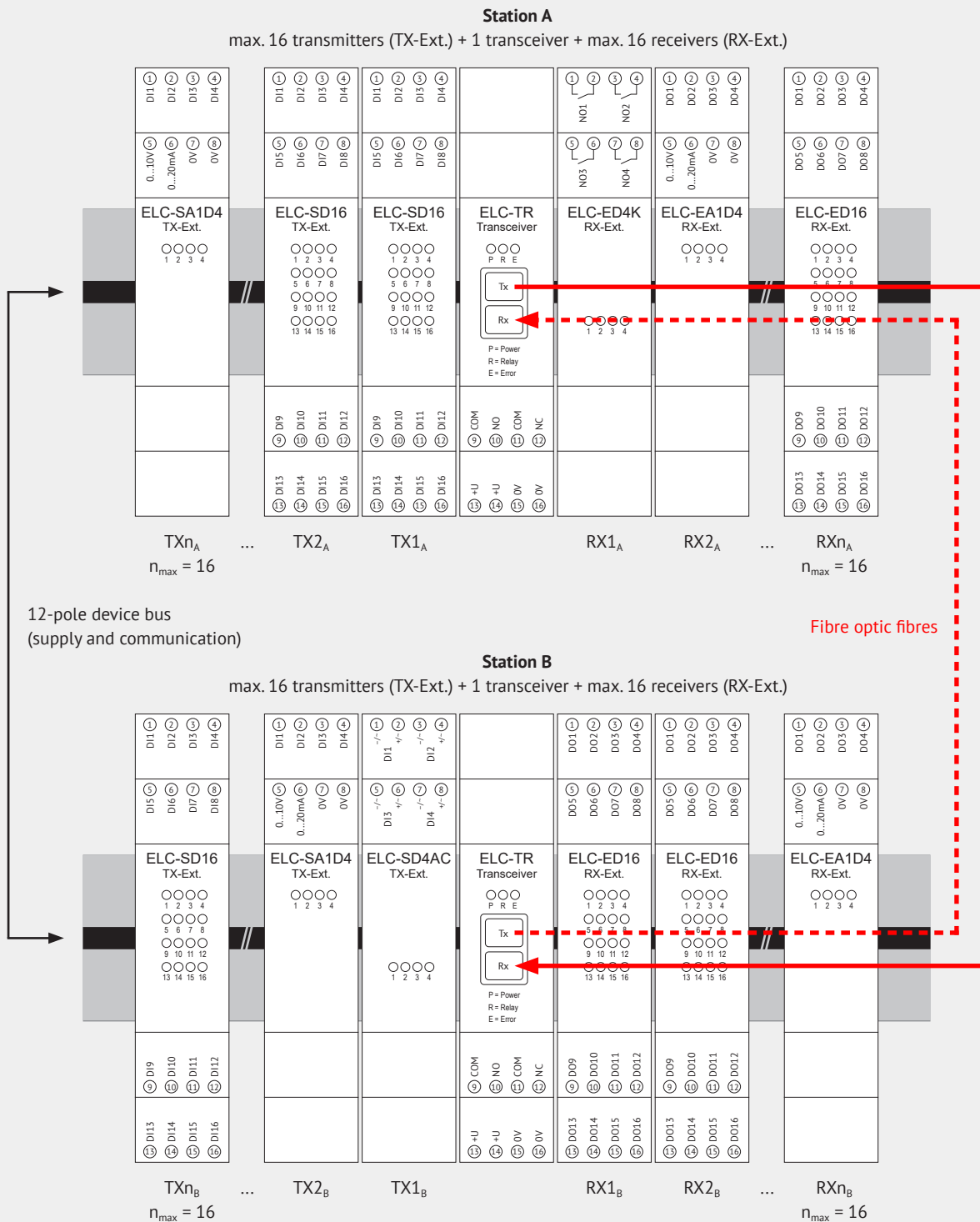
Example of a wrong installation ✗

TX1 = ELC-SD16 ⇨ RX1 = ELC-ED16 ✓

TX2 = ELC-SD16 ⇨ RX2 = ELC-EA1D4 ✗

TXn = ELC-SA1D4 ⇨ RXn = ELC-ED16 ✗

**Bidirectional point-to-point transmission with 2 optical fibres**



- Example of a correct installation ✓**
- TX<sub>1A</sub> = ELC-SD16    ⇨    RX<sub>1B</sub> = ELC-ED16
  - TX<sub>2A</sub> = ELC-SD16    ⇨    RX<sub>2B</sub> = ELC-ED16
  - TX<sub>nA</sub> = ELC-SA1D4    ⇨    RX<sub>nB</sub> = ELC-EA1D4
  - TX<sub>1B</sub> = ELC-SD4AC    ⇨    RX<sub>1A</sub> = ELC-ED4K
  - TX<sub>2B</sub> = ELC-SA1D4    ⇨    RX<sub>2A</sub> = ELC-EA1D4
  - TX<sub>nB</sub> = ELC-SD16    ⇨    RX<sub>nA</sub> = ELC-ED16

- Example of a wrong installation ✗**
- TX<sub>1A</sub> = ELC-SD16    ⇨    RX<sub>1B</sub> = ELC-ED16    ✓
  - TX<sub>2A</sub> = ELC-SD16    ⇨    RX<sub>2B</sub> = ELC-EA1D4    ✗
  - TX<sub>nA</sub> = ELC-SA1D4    ⇨    RX<sub>nB</sub> = ELC-ED16    ✗
  - TX<sub>1B</sub> = ELC-SD4AC    ⇨    RX<sub>1A</sub> = ELC-ED4K    ✓
  - TX<sub>2B</sub> = ELC-SA1D4    ⇨    RX<sub>2A</sub> = ELC-ED16    ✗
  - TX<sub>nB</sub> = ELC-SD16    ⇨    RX<sub>nA</sub> = ELC-EA1D4    ✗