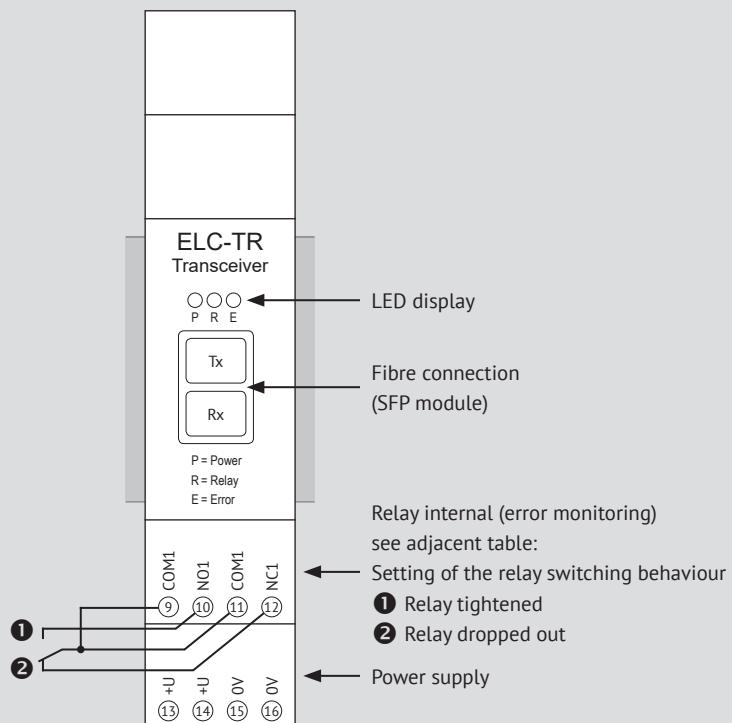


**Transceiver ELC-TR-ME22****Safety instructions**

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 (earthing, auxiliary equipment, etc.) are in place! Use suitable tools!

**Setting of the relay switching behaviour**

Jumper position	N	Er
intrinsically safe (factory setting)		
No error	①	②
Error	②	①

**Installation instructions**

The maximum number of extension units is defined by jumpers on the ELC-TR 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 (see data sheet).**

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.

Max. number of extensions	2	4	8	16

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

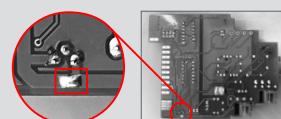
When attaching the extension units, make sure that compatible units are attached in the same position. The type of device at position no. „n“ to the left of the transceiver (transmitter station) must therefore be compatible with the type at position no. „n“ to the right of the transceiver (receiver station).

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

	SD16	SA1D4	SD4AC	SD4DC
ED16	●			
EA1D4		●		
ED4K			●	●

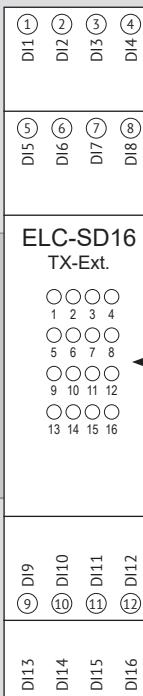
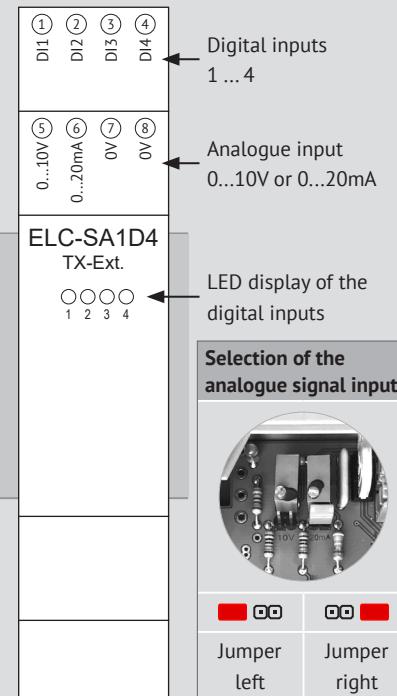
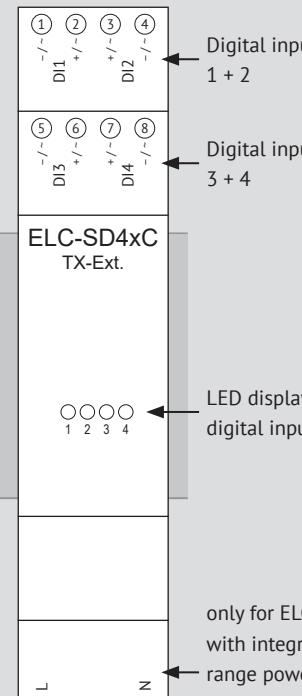
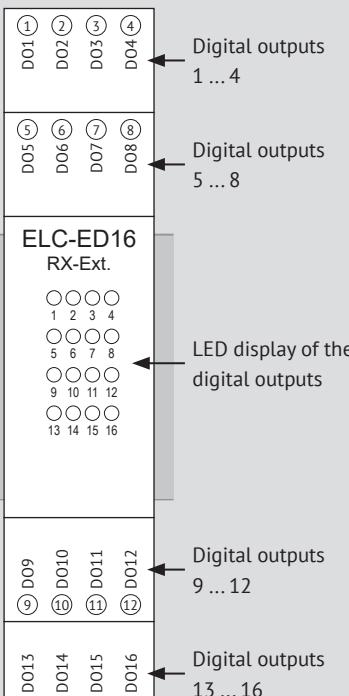
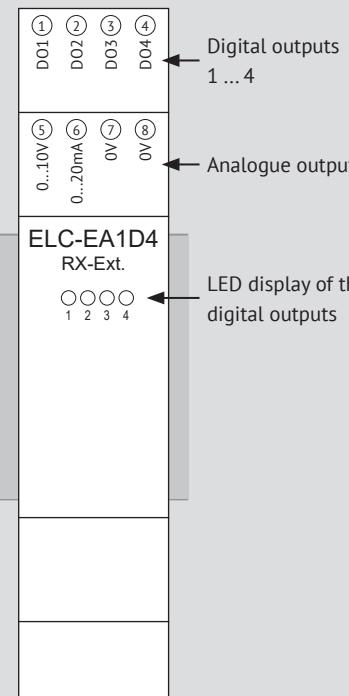
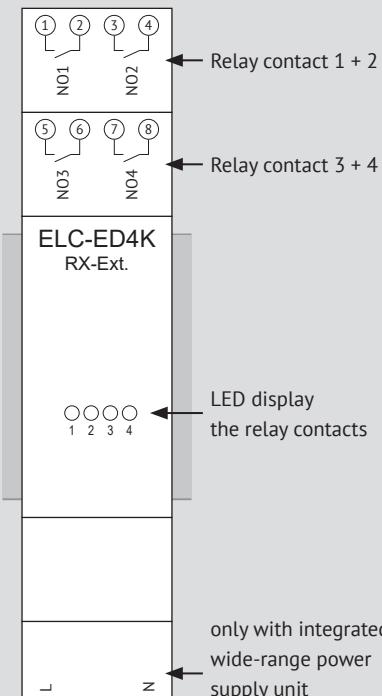
If one (or more) extension unit(s) with integrated power supply IRM (e.g. ELC-SD4AC-IRMx or ELC-ED4K-IRMx) is (are) subsequently installed at a station, for the ELC-TR transceiver the shown solder bridge on the bottom side of the circuit board must be **opened**.

Therefor you will need a soldering iron.



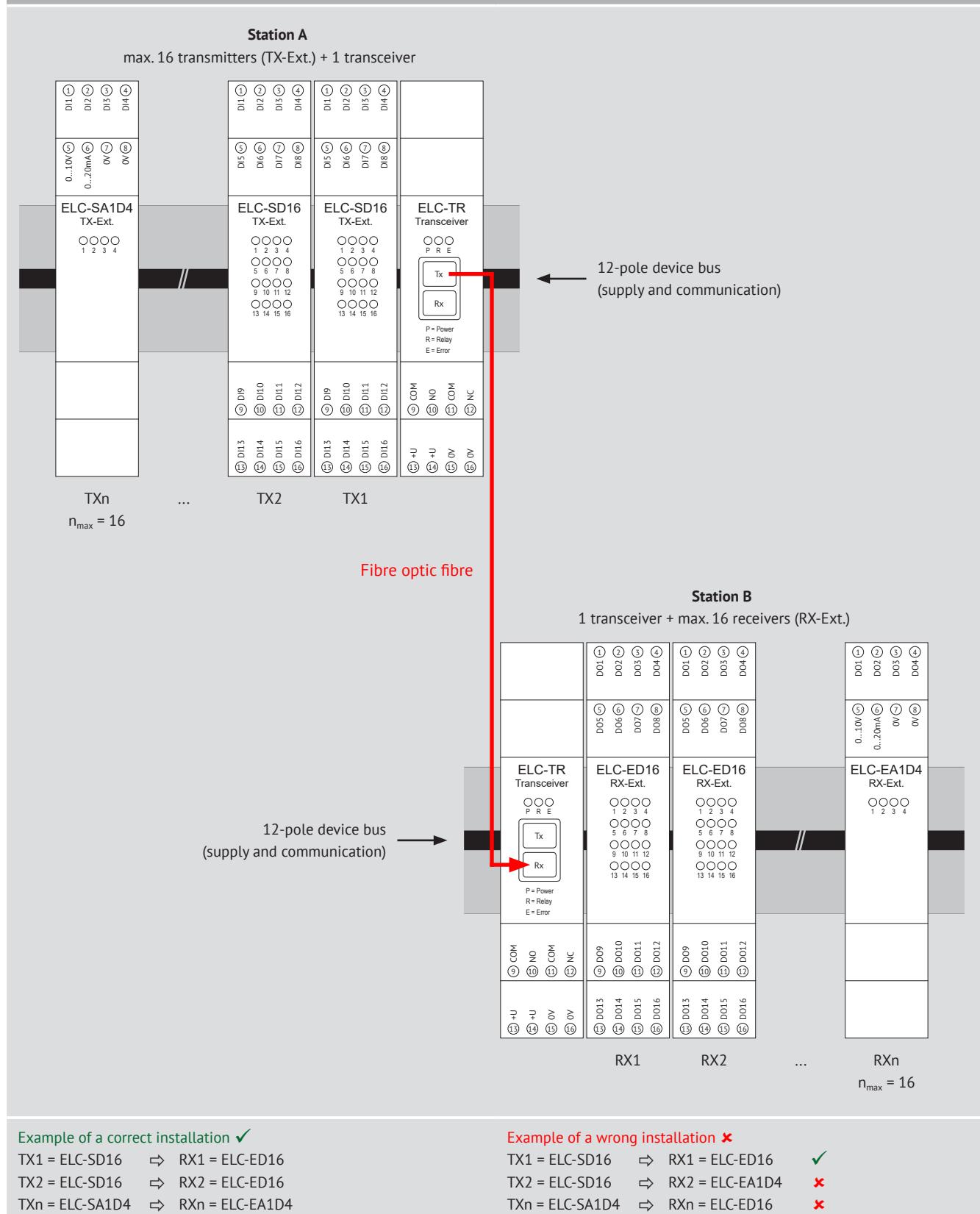
The maximum recommended number of extension units depends on the power consumption. This applies in particular to the ELC-ED16 expansion units if the outputs are subjected to a higher load (e.g. control of coupling relays) or if several ELC-ED4K are connected.

Please refer to the data sheet.

Transmitter extensions		
ELC-SD16-ME22	ELC-SA1D4-ME22	ELC-SD4AC / ELC-SD4DC
 <p>Digital inputs 1 ... 4 Digital inputs 5 ... 8 Digital inputs 9 ... 12 Digital inputs 13 ... 16 LED display of the digital inputs</p>	 <p>Digital inputs 1 ... 4 Analogue input 0...10V or 0...20mA LED display of the digital inputs <b>Selection of the analogue signal input</b> Jumper left Jumper right 0...10V 0...20mA</p>	 <p>Digital inputs 1 + 2 Digital inputs 3 + 4 LED display of the digital inputs only for ELC-SD4AC with integrated wide-range power supply 85...250V AC</p>
Receiver extensions		
ELC-ED16-ME22	ELC-EA1D4-ME22	ELC-ED4K-ME22
 <p>Digital outputs 1 ... 4 Digital outputs 5 ... 8 Digital outputs 9 ... 12 Digital outputs 13 ... 16 LED display of the digital outputs</p>	 <p>Digital outputs 1 ... 4 Analogue outputs 0...10V or 0...20mA LED display of the digital outputs</p>	 <p>Relay contact 1 + 2 Relay contact 3 + 4 LED display the relay contacts only with integrated wide-range power supply unit 85...250V AC</p>

# System architecture of an unidirectional system

### Unidirectional transmission



Example of a correct installation ✓

- 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 ✗

- Example of a wrong installation:   
TX1 = ELC-SD16   ⇒  RX1 = ELC-ED16  
TX2 = ELC-SD16   ⇒  RX2 = ELC-EA1D4  
TXn = ELC-SA1D4   ⇒  RXn = ELC-ED16

## System architecture of a bidirectional system

## Bidirectional transmission

