# Application examples
## C579

## Applications

You can use the C 579 expansion unit in combination with all
the C 57x basic units. It extends the number of release circuits. Depending on
the external connection, category 4 as per
DIN EN 954-1 is achievable with this device.

## Functions and connections

The C 579 expansion unit has four release circuits (safety circuits) configured as
NO circuits.
Two LEDs indicate operating state and function. The device is controlled via any
release circuit of the safety relays C 57x.
When the EMERGENCY STOP pushbutton or the limit switch is unlocked and
the ON button is pressed, the internal circuit of the safety relay and the external
contactors are checked for correct functioning.

## 7 Terminal marking

| Supply voltage | A1 | L/+ |
| --- | --- | --- |
| | A2 | N/- |
| Outputs | 13, 14 | Safety output 1 (n/o contact) |
| | 23, 24 | Safety output 2 (n/o contact) |
| | 33, 34 | Safety output 3 (n/o contact) |
| | 43, 44 | Safety output 4 (n/o contact) |
| Feedback loop | 51, 52 | Monitoring of the extension unit |

## Operation

| LEDs | | Operation | |
| --- | --- | --- | --- |
| Channel 1 | Channel 2 | PS | Safety output of C 57x safety relays |
| ☼ | ☼ | ON | closed |
| ○ | ○ | | open |
| | | **Faults** | |
| ○ | ☼ | | Relay fusion-welded |
| ☼ | ○ | | Defect in electronics |
| ○ | ○ | | Motor contactor fusion welded |

**Fault clearance**
1. Switch supply voltage off.
2. Clear fault or replace device.
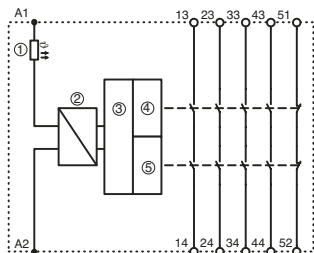3. Switch supply voltage back on.

**Cable length**

For 2 x 1.5mm$^2$ max. 1000m total cable length for 150nF/km sensors and power
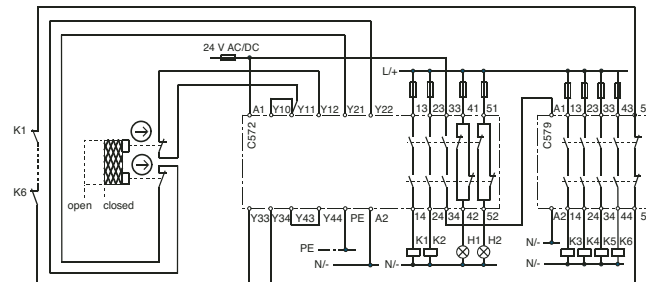supply lines.

## Internal circuit



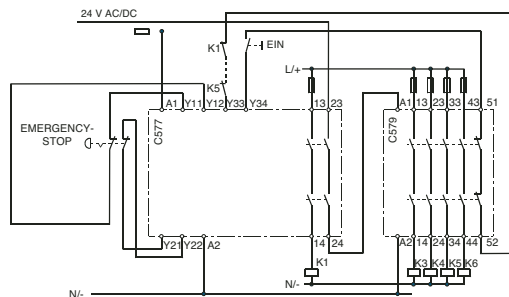## Safety gate monitoring
Safety category 4 acc. to EN 954-1



## EMERGENCY STOP
Safety category 4 acc. to EN 954-1



## EMERGENCY STOP with time delay