

# Support Error 7

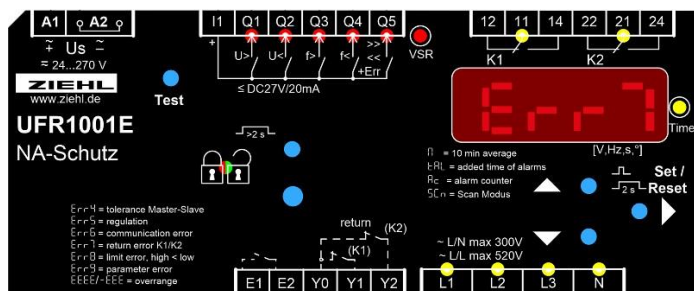
Version: 2023-08-10/KA  
 from firmware: 0-00



You can conveniently obtain detailed information and help for this product via the **QR code** or under **UFR1001E**.

Technical data sheets, detailed operating instructions, quick guides, connection diagrams, CAD data, firmware updates, extensive FAQs, operating and explanatory videos, certificates.

## Grid and plant protection UFR1001E – the device shows Err7 on the display.



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### 1 Cause and Signal

If a UFR1001E shows "Err7", there is an issue with the controlled coupling switch – the switch is not in the state specified by the N/A protection relay!

First of all, the UFR100... is almost never the cause of this error.

In programmes 1 and 2 (4105) and 15 (VSE/Switzerland), the device monitors the function of the connected coupling switches. It expects an edge change at the Y1 and Y2 inputs, where potential-free contacts from the coupling switch are connected. Or, to put it another way, within 5 seconds (trEL = 5.0) after K1 and K2 are switched on, the contacts connected to terminals Y1 and Y2 must change their state.

In all other programmes, the monitoring is deactivated by default (trEL = off). However, it can be activated, for example, if someone wanted to measure the response time of the coupling switch.

When switching off, this time is only 0.5 s. Err7 when switching off is very rare (contacts on the coupling switch welded). The error practically always occurs when switching on.

When and how often the Err7 occurred can be read in the alarm counter ([video](#)).

The error usually appears as follows:

After switching on the control voltage, a countdown starts, and at "0," relays K1 and K2 switch on (immediately after a reset), if all switching criteria are met (all red LEDs on Q1-Q5 are off).

After 5 seconds, the device detects that there is no change at the Y terminals and switches K1 and K2 off again. After 10 seconds, it tries to switch on again, possibly turning off K1 and K2 after another attempt and displaying "Err7". K1 or K2 flashes, depending on which feedback contact first detected an error.

**Note: Devices with firmware 0-02 do not make retry attempts.**

## 2 Useful Videos

[2-stage test](#) (from firmware 0-10)

[Disable code lock](#)

[Disable monitoring of feedback contacts](#) [Enable/disable sealing](#)

[Read alarm counter](#) (number of all alarms)

## 3 Notes on Cause and Remedy

**First Measure:** Press the Set/Reset button >3s and check if the system is ready for operation again. To be safe, read the alarm counter ([video](#)) to see if this alarm has occurred more frequently. WARNING! Other alarms may also be present here.

### 1. The system was newly installed

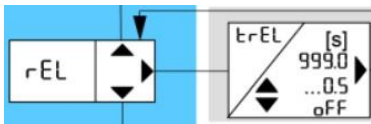
Solution: Please check if potential-free contacts (feedback contacts) of the coupling switches are connected to Y1 and Y2. If only one coupling switch is present, Y1-Y2 must be bridged.

Check if the coupling switches are connected correctly. They must switch on when K1 and K2 engage, and the yellow LEDs on the relays light up.

### 2. The system was newly installed, but no coupling switch is connected; instead, coupling switches in the inverter are controlled, and no feedback is coming from them.

With approved and appropriately certified inverters, this is possible, see [example connection diagrams](#).

Solution: Disable monitoring of feedback contacts (set trEL to 0, see [operating instructions](#) and this operating video).



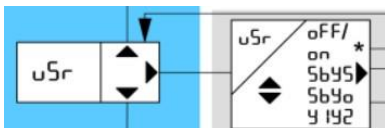
### 3. The system was already in operation without issues, but at least one coupling switch does not switch "ON".

Solution: Check the supply voltage; is it available (24-230V) for the switch? If the switch is connected to power and does not switch on, it may be defective. The switch should be replaced.

### 4. Coupling switches switch, and Y1 and Y2 are correctly connected, but the UFR1001E does not recognize this?

Solution: Measure if there is voltage at the feedback contacts (about 20 V / 0 V, see tips below).

**5. A foreign switch, such as a fire department switch or one connected in series with the ripple control receiver, has been connected, which shuts off the coupling switch.** Solution: Connect ripple control receiver to E1-E2. Use the fire department switch to turn off the control voltage. See [example connection diagrams](#).



If unavoidable, program vSR on Y1-Y2 (see [operating instructions](#)) and insert a bridge between Y1-Y2. Now it will only be recognized if the coupling switches do not turn off when K1 and K2 drop out.

### 6. The system was already in operation without issues, but at least one coupling switch does not switch "OFF".

(Check if the switch is without power. Theoretically, the relay in the UFR1001E could be stuck).

Solution: This is a serious error and should be detected by the feedback monitoring. The defective part MUST be replaced immediately.

### 7. Circuit breakers have an overcurrent release. If improperly set, this can cause the circuit breaker to shut off, possibly regularly under high feed-in conditions (see alarm counter, [video](#)).

Solution: Set the switch to the appropriate value after consulting the installer or replace it. Note: Many circuit breakers must be manually reset after a trip (Reset).

## 4 Additional Useful Tips

For devices that are sealed or protected by a code lock, you may need to disable the code lock ([video](#)) or remove the seal ([video](#)).

From firmware 0-10 (display side type plate or hold down Set), you can also switch on K1 and K2 with the test button when Err7 is present; K1 and K2 can then be tested individually ([video](#)).

Up to firmware 0-09, the test button only switches off both K1 and K2. To test in case of faulty feedback, feedback monitoring must first be disabled ([video](#)). Don't forget to turn it back on afterward.

When the feedback contact is open, a DC voltage of about 20 V can be measured between terminals Y0 – Y1 or Y0 – Y2. When the connected contacts are closed, this voltage must drop to 0 V.

**WARNING: Do not apply potential to the Y terminals.**

## 5 Important Notes



**WARNING!**

**Dangerous electrical voltage!**

**Can cause electric shock and burns.**

**Ensure the system and device are de-energized before starting any work.**

Subject to technical changes