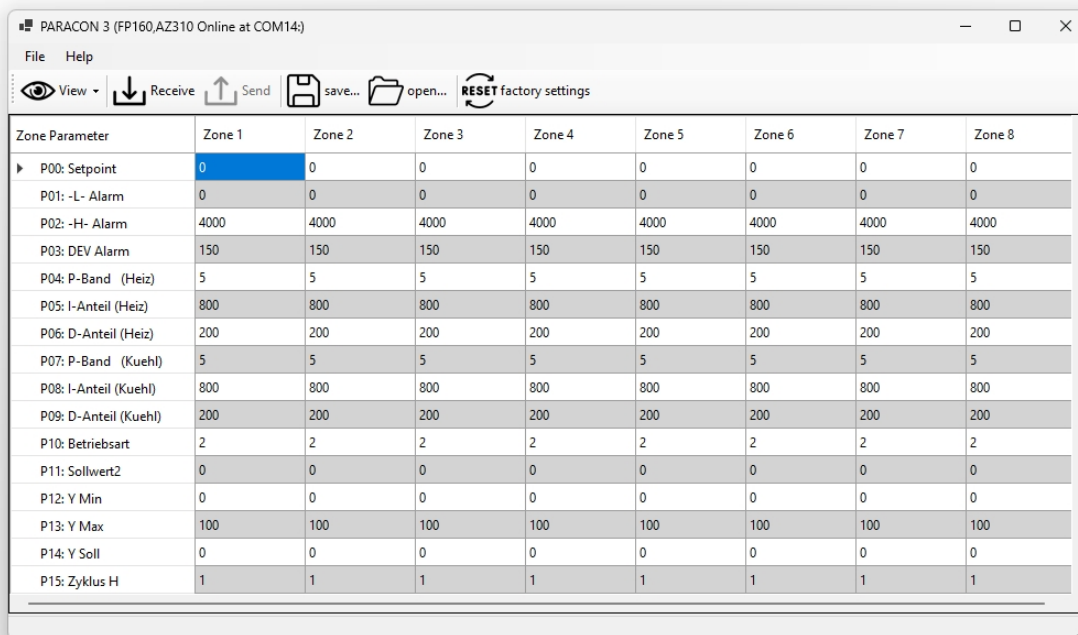


## PARACON 3

The parameterization software for all controllers with FE3 protocol



PARACON 3 (FP160,AZ310 Online at COM14)

File Help

View Receive Send save... open... RESET factory settings

Zone Parameter	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	Zone 6	Zone 7	Zone 8
P00: Setpoint	0	0	0	0	0	0	0	0
P01: -L- Alarm	0	0	0	0	0	0	0	0
P02: -H- Alarm	4000	4000	4000	4000	4000	4000	4000	4000
P03: DEV Alarm	150	150	150	150	150	150	150	150
P04: P-Band (Heiz)	5	5	5	5	5	5	5	5
P05: I-Anteil (Heiz)	800	800	800	800	800	800	800	800
P06: D-Anteil (Heiz)	200	200	200	200	200	200	200	200
P07: P-Band (Kuehl)	5	5	5	5	5	5	5	5
P08: I-Anteil (Kuehl)	800	800	800	800	800	800	800	800
P09: D-Anteil (Kuehl)	200	200	200	200	200	200	200	200
P10: Betriebsart	2	2	2	2	2	2	2	2
P11: Sollwert2	0	0	0	0	0	0	0	0
P12: Y Min	0	0	0	0	0	0	0	0
P13: Y Max	100	100	100	100	100	100	100	100
P14: Y Soll	0	0	0	0	0	0	0	0
P15: Zyklus H	1	1	1	1	1	1	1	1

## Overview

Most Feller Engineering devices are equipped with a serial RS485 data interface with FE3 protocol, which can be used to make device settings and query process values.

PARACON3 is a software program that uses this interface. The program displays all the controller settings in a clear table and allows them to be changed. This is particularly important for devices without their own user interface (FP16, FP160, FP1600...). The values can also be saved and loaded as a file.

An interface converter USB -> RS485 is required to operate the program. We recommend the use of the isolated transducer type "SI13u" from Feller Engineering.

## Installation

The program consists of a single EXE file and a subdirectory "DRIVER", in which device-specific drivers are stored. Installation is therefore not required. .NET6 is required for operation; the program prompts you to install it if necessary.

### RS485 > USB interface converter

We recommend the use of the isolated interface converter type "SI13u". When plugged into a free USB port, this converter is automatically recognized by Windows as a serial COM port. As a PC can generally manage several COM ports, Windows assigns a number to the port. For example COM1: or COM12:



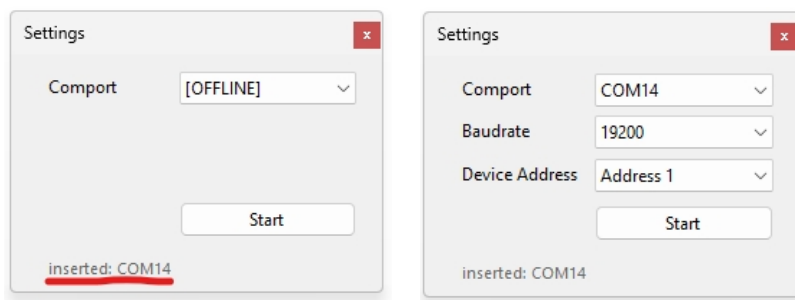
The RS485 interface of the converter is led out via a 9-pin. DSUB socket on pins 2 and 3. The connection to Feller temperature controllers with RS485 via DSUB socket can be easily established using an **AU067** cable.

For controllers that do not lead out the RS485 via a DSUB socket (e.g. FP160), a corresponding adapter cable must be made.

In principle, other RS485 converters can also be used. In this case, the correct pin assignment and bus termination must be ensured.

## Start of the program

After starting PARACON, the correct COM port number of the interface converter must first be selected. The program automatically lists all available COM ports. If it is unclear which port has been assigned to the converter, the converter can be briefly unplugged and plugged in again. The last recognized port is then displayed in a status bar.

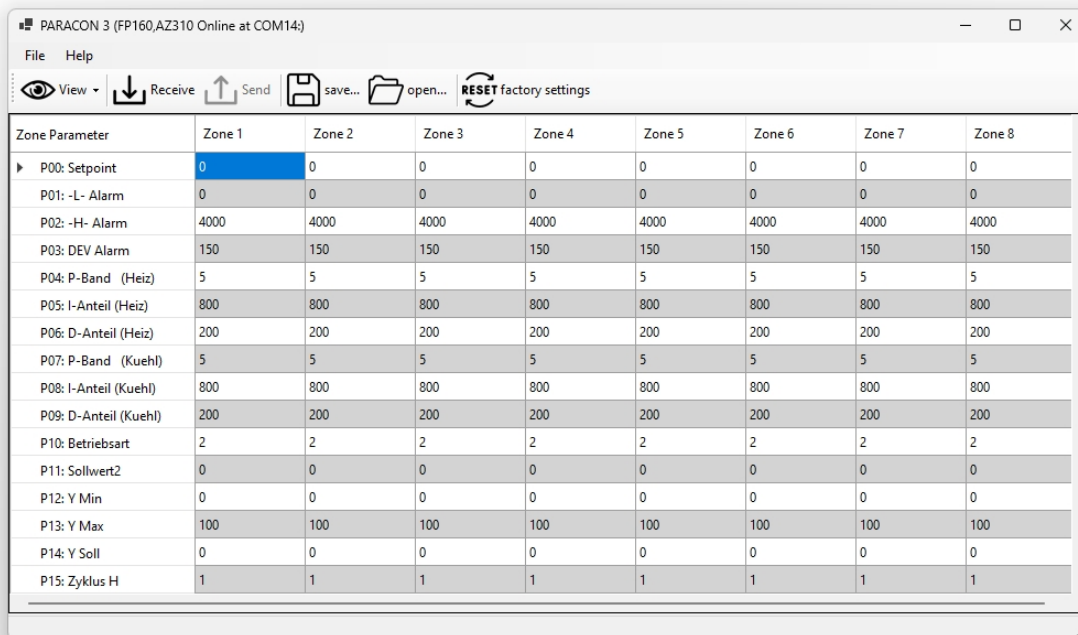


After selecting the correct COM port, the baud rate set on the controller and the BUS address of the controller must be selected. Communication begins with the Start button and all settings are read out on the controller.

## Operation

The program is operated via a series of function buttons, which are arranged next to each other in the upper menu band.

Below this, the setting values transmitted via the interface are displayed in tabular form. The values can be edited within the permissible setting limits and are transferred to the controller immediately after being changed. Values shown in **blue** can only be read but not changed.



Zone Parameter	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	Zone 6	Zone 7	Zone 8
P00: Setpoint	0	0	0	0	0	0	0	0
P01: -L- Alarm	0	0	0	0	0	0	0	0
P02: -H- Alarm	4000	4000	4000	4000	4000	4000	4000	4000
P03: DEV Alarm	150	150	150	150	150	150	150	150
P04: P-Band (Heiz)	5	5	5	5	5	5	5	5
P05: I-Anteil (Heiz)	800	800	800	800	800	800	800	800
P06: D-Anteil (Heiz)	200	200	200	200	200	200	200	200
P07: P-Band (Kuehl)	5	5	5	5	5	5	5	5
P08: I-Anteil (Kuehl)	800	800	800	800	800	800	800	800
P09: D-Anteil (Kuehl)	200	200	200	200	200	200	200	200
P10: Betriebsart	2	2	2	2	2	2	2	2
P11: Sollwert2	0	0	0	0	0	0	0	0
P12: Y Min	0	0	0	0	0	0	0	0
P13: Y Max	100	100	100	100	100	100	100	100
P14: Y Soll	0	0	0	0	0	0	0	0
P15: Zyklus H	1	1	1	1	1	1	1	1

## View



One of three different tables can be selected via the "View" button. become:

- Zone parameters**  
 The table in which all zones of the controller are displayed with their respective parameters.
- Device parameters**  
 The table in which all device-specific parameters are displayed.
- Process Values**  
 The table with the read-out process values. These are the actual value, the output power and the status of all zones. These values are updated continuously and cannot be changed.


### Receive



This is used to read in the controller parameter values again

### Send



This function is required if a parameter file with the OPEN function  has been loaded and the new values are to be transferred to the controller.


### Save...



This is used to save all parameter values in a file. The suggested file name is made up of the device type, its serial number and the current date/time. The file can be transferred back to the controller at a later date or used for diagnostic purposes.

### Open.



Enables previously saved parameter files to be loaded. If the loaded parameter values differ from the current values, they are shown in **yellow** in the table. is stored. Only the **Send** function  finally transfers the loaded values to the controller.

### Factory Settings



Resets the controller to the factory settings after consultation.

## Start offline

The program can also be started offline. To do this, under COM port, select "[OFFLINE]" should be set. This makes particular sense if only parameter files should be loaded and viewed.

In offline mode, the buttons **Receive** , **Send**  and **Factory Settings**  from the ribbon are deactivated.

## Debug

A debug terminal is available in the **Help -> Debug** menu. With appropriate knowledge of the structure of FE3 protocols, all commands can be executed manually here. The program automatically takes over the complete checksum handling so that these do not have to be entered.

