

Manual ADE Project Explorer 2.7.0.0

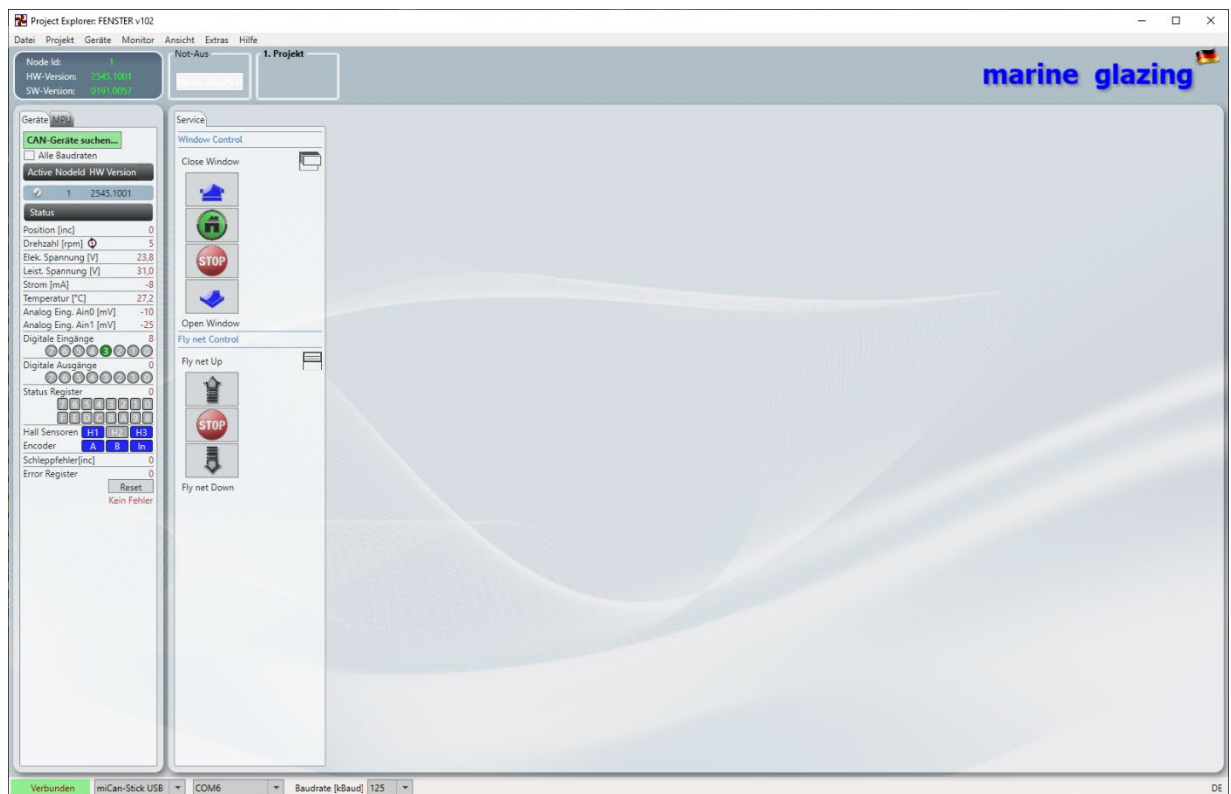
In the following, we describe how to use the ADE Project Explorer to test a window automatically and also how to control it manually via computer.

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Installation of Software and drivers:

- 1.) To use the Program, you need an USB Adapter (miCan Stick), a USB cable (micro USB to USB A), the zip file ADE Released v2.7.0.0 and a computer with Windows 7 or 10 installed
- 2.) Unzip the zip file to a place where you can find it easily on your local computer. Don't unzip it to any network folder.
- 3.) Open the unzipped folder, open the folder miCanStick-DriverInstaller 2.6.2.0, execute the DriverInstaller.exe file and wait until the driver is installed.
- 4.) Plug in the miCan Stick USB Adapter to your computer, it should automatically be recognized. Use the USB cable to connect the USB Adapter with your Window Controller. You find the USB Controller gets power from the power supply.
- 5.) Go one folder up and open the folder ADE Released v2.7.0.0. In this folder, you must execute the file ProjectExplorer.exe. Now, you should see a screen like this:



Please immediately check if you see a number behind HW-Version and SW-Version in the upper left corner, and also in the column below you should at least see numbers behind Elek. Spannung [V] and Leist. Spannung [V]. These should be about 24 and 42. If you only see empty fields there, please check if the Window Controller is powered and if the USB Adapter is connected to the controller. If everything looks good for you, continue with the next step.

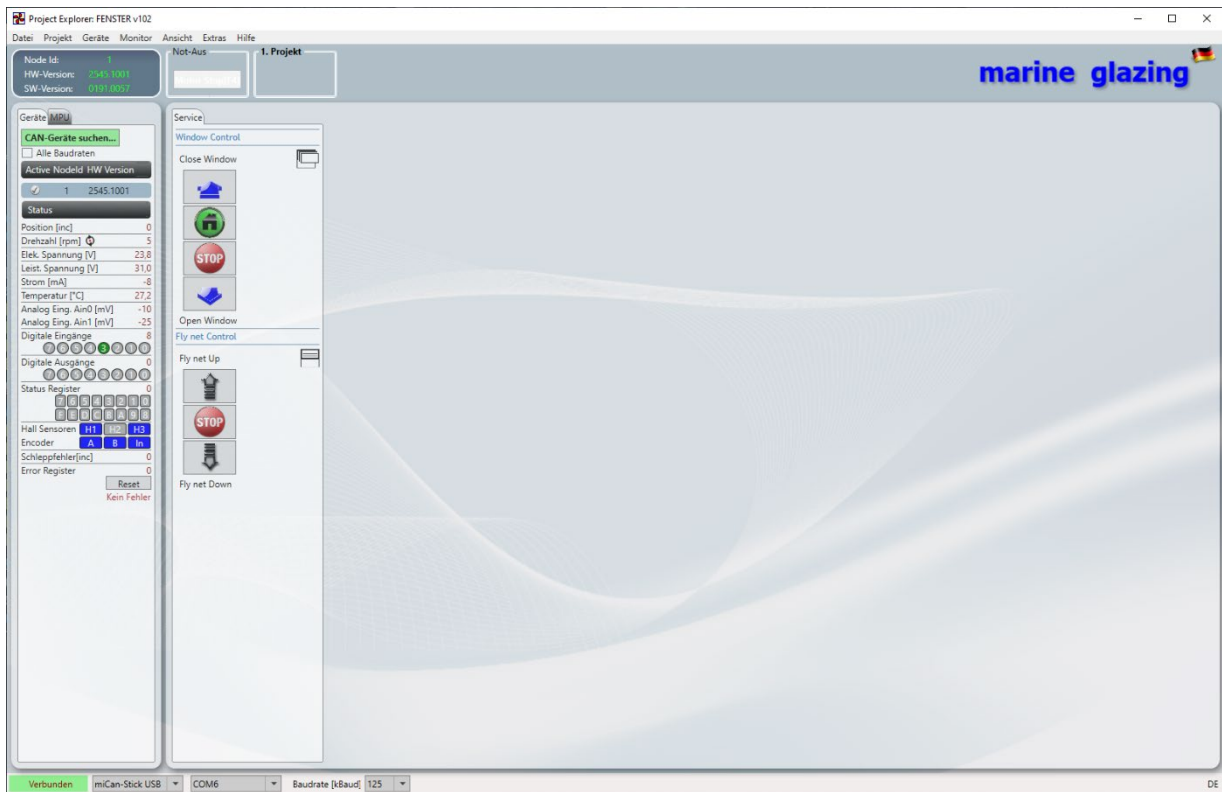
Using the ADE Project Explorer:

In case you must work on the window to replace a part or look for an error, it can be useful to move the window and the insect screen manually. To move the window or the fly net manually, you can use the Service tab which is always available, in default and in debug mode.

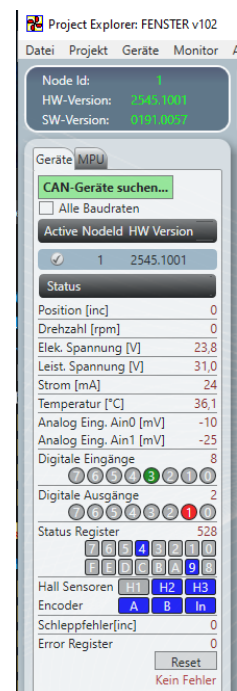
To control the window you have a button for CLOSE, OPEN, STOP and HOMING

To control the fly net you have a button for UP and DOWN and STOP

If you use this Software Buttons, be aware that they might react delayed, this depends on the computer / Software / other influences.



On the left side of the tool, you can see all details of the moving window in real time like position, speed (Drehzahl), electronic power voltage (Elek. Spannung [V]), power voltage (Leist. Spannung [V]), current (Strom), temperature (Temperatur), digital I/Os, digital outputs and finally the error code in case an error appeared.



MAINTENANCE / ERROR MANAGEMENT

The controller itself is a maintenance free system. Only proper instructed technicians are allowed to check the connectors in case of an error. Never open the controller case! If you open it, any warranty will be lost. Always switch of the power supply and also the 230V AC supply that is responsible for the related window.

At least the connector X.5 is connected to the 230V AC line! Never touch this area until you are sure that any power connections to the related window is switched off!

The window controller software contains an integrated error management which try to handle small, non-critical errors by itself. You can verify this with the ERROR / OPERATIONAL Signal output (X8.20 and X8.19). Before you start a detailed error search, you should switch the drive off and turn it on again after approx. 2 seconds. The drive performs a reference run once you push the open or close button. In most cases, the fault is thus eliminated and the drive is ready for operation again. If this is not the case, please proceed as described below.

The table below provides an overview of the most common faults and their remedies:

Error	Possible reason	Solution
Window open and close continuously	There must be a defect in the wirering itself or a button is damaged.	Switch off the system and check the cables and buttons
Window move only a short way and stop then immediately.	Sluggishness / blockage in mechanics.	Check the mechanics for damages / other issues that can result in sluggishness
Window do not open or close when you push the related button	One of the monitoring sensors is occupied (curtain, object, person ...) or one of the toothed belts is torn.	Check the entire detection area of the sensors for obstacles and free them. Check the LED's are lit red or green and do not flash, try again. In the case of a torn belt or broken belt sensor, the fault can only be acknowledged after the repair has been completed by switching the voltage off and on.

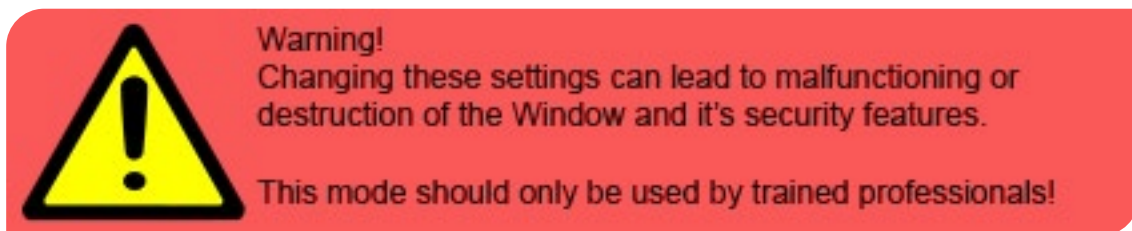
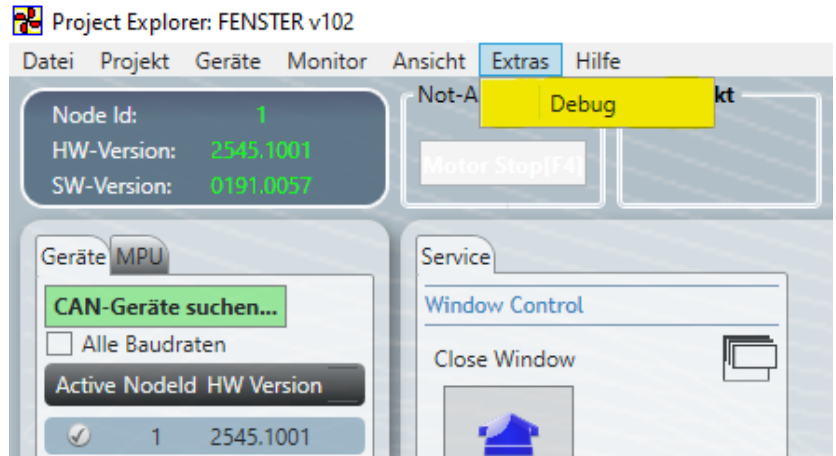
ERROR CODES

The following error codes are readable via the service plug. You need the specified software and the service adapter to read those errors, once they happen, and for deeper diagnostics. It is always possible to get additional support via TeamViewer if the connected computer has an internet connection.

Error Code	Error Description
1000	ERR_Low_FieldUnderVoltage (Voltage UP is to low)
1001	ERR_FieldOverVoltage (Voltage UP is to high)
1002	ERR_MainsUnderVoltage (Voltage UE is to low)
1003	ERR_MainsOverVoltage (Voltage UE is to high)
1021	ERR_HeatSinkOverTemperature (Controller is overheated)
1060	ERR_MotShortCircuit (shortcut in motor windings)
1061	ERR_MotOverCurrent (Motor use current which is over the max limit)
3010	ERR_Blockage (Motor was blocked unexpected)
4000	ERR_FollowingError (too much drift between command and real position)
7001	ERR_TimeDiagnose_Open (window needs to long to open)
7002	ERR_TimeDiagnose_Close (window needs to long to close)
7003	ERR_TimeDiagnose_Homing (window needs to long for homing)
7004	ERR_TimeDiagnose_HomingBlock (window is blocked in an unexpected way)
7005	ERR_TimeDiagnose_SecurityLevel (window needs to long for security feedback)
7011	ERR_BeltLeft (left belt sensor doesn't work / left belt is cracked)
7012	ERR_BeltRight (right belt sensor doesn't work / right belt is cracked)
7021	ERR_DiagnoseSensorLow (window sensor test failed at falling edge)
7022	ERR_DiagnoseSensorHigh (windows sensor test failed at rising edge)

Debug Mode / Testing Mode

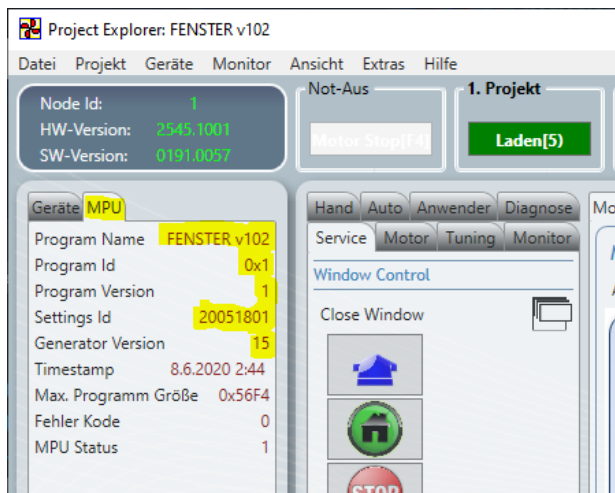
You can activate the Debug Mode in your menu bar, by clicking on “Extras” and Selecting “Debug”. Now you will see a lot more available settings. It is advisable to resize the setting window!



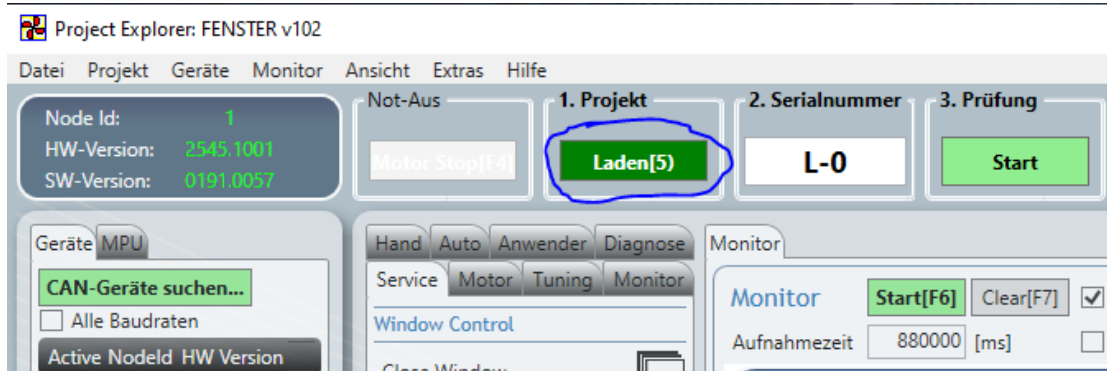
You have several options to use this tool. It provides you with an automated test routine to open and close the window 10 times and save the result. You can also open and close the insect screen and the window manually. Finally, some diagnostics to determine errors can be done and new software can be flashed to the controller in case of a replacement or if new software was provided to you by the manufacturer. Now, we describe all those functions step by step.

1.) Checking if the right software is already on the controller:

To check this, just click on the upper left side on the index tab „MPU“ and check if what you see fits to what you see here in the screenshot:

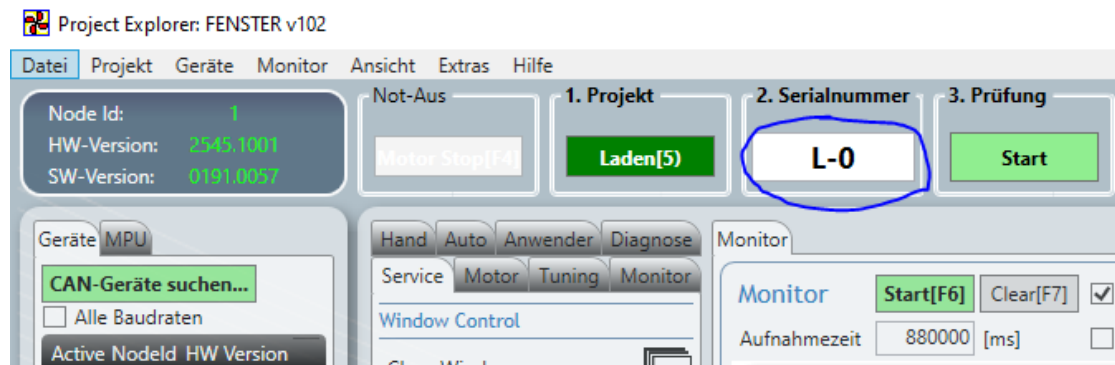


If all numbers marked in yellow are similar, you can continue with the next step. If not, you must flash the right software first. You can do this easily by using the F5 key on your keyboard or by clicking on the green „Laden“ button you see in the tool. Once the flashing has finished, a popup window appears that says „Das Projekt Fenster v23 wurde erfolgreich geladen“.



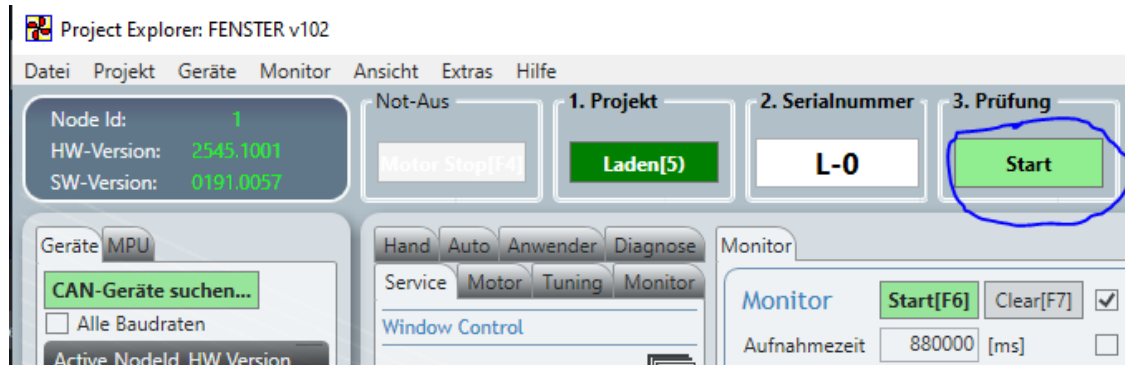
2.) Entering the Serial Number:

Besides the „Laden“ button you see a field „Seriennummer“, where you must enter the serial number of the window. The number always starts with L - which is automatically given. Then, you must type a number between 001 and 999. If you miss one digit, an error message appears once you try to continue.

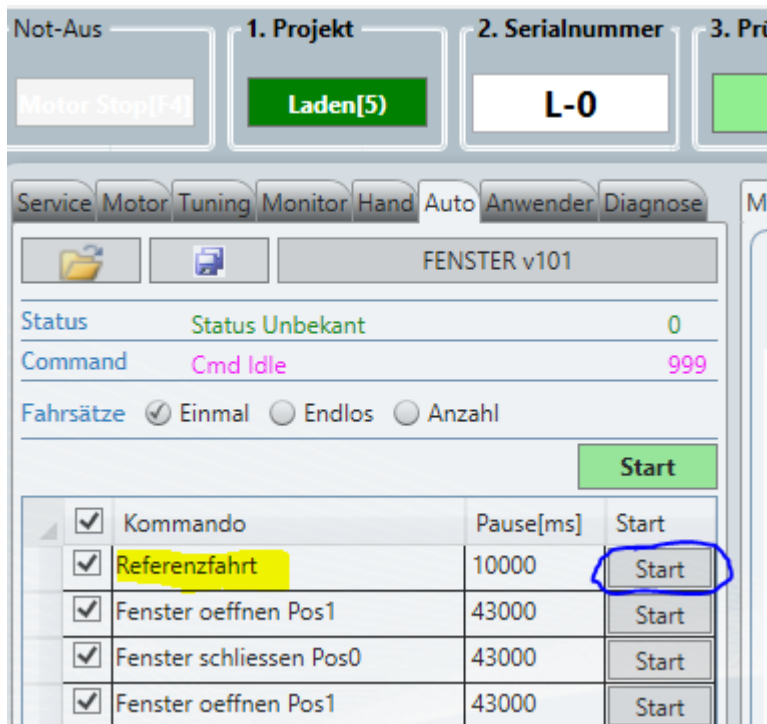


3.) Starting the Test Mode:

If the window is already closed, you can immediately start the test routine by clicking the button „Start“.

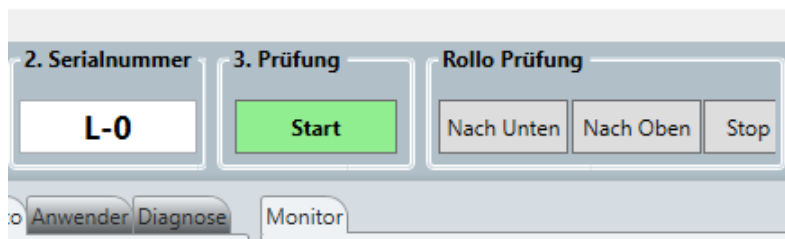


Once the window is open, you first have to initialize a reference move (Referenzfahrt). To do this, you have to click on the index tab „Auto“, which you find below the „Laden“ button.



You should then see this screen where you must click on the „Start“ button on the right side of the line „Referenzfahrt“ as marked on the screenshot. Ensure that the window is freely movable, no person is working on the window and that the window sensors are free. Once you push the start button, the window starts to close at a slow speed. If it stops before it reaches the “closed” position, push the start button again. When that process is done, the window should be

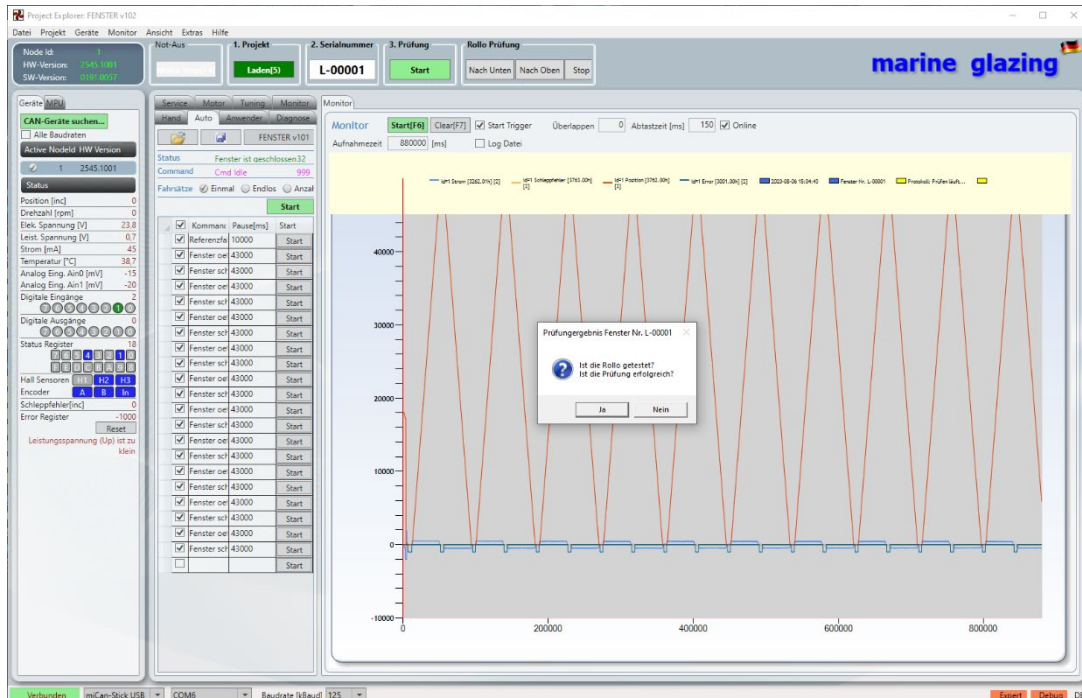
completely closed and you can continue by just clicking on the upper green „Start“ button as described above.



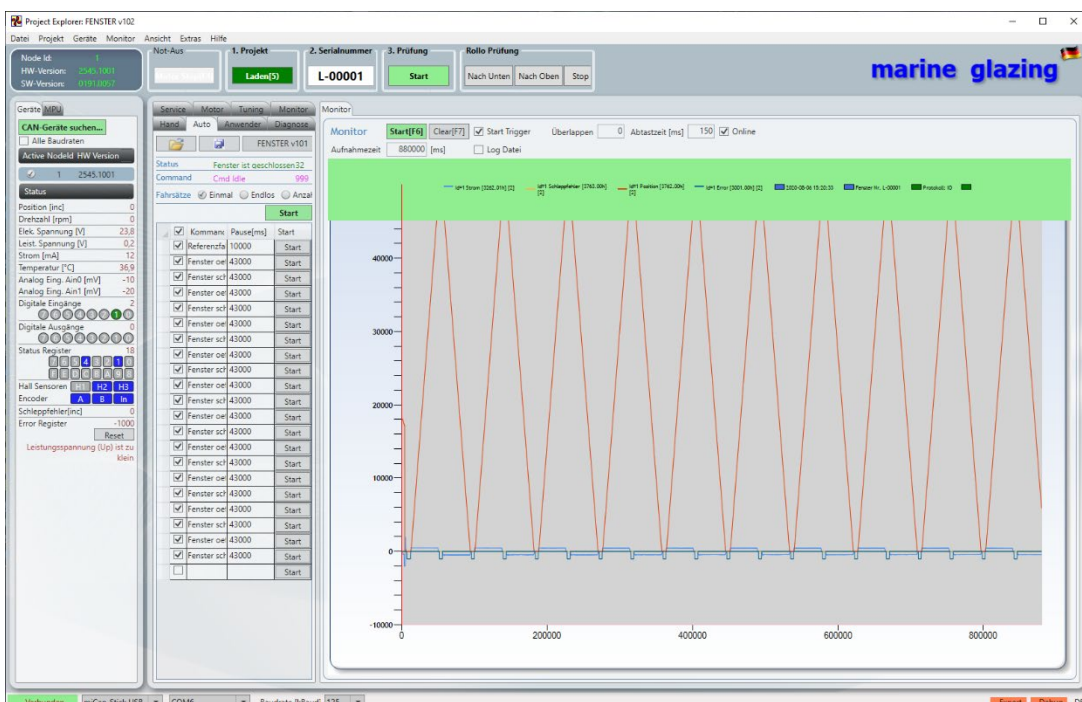
Once you start the test mode, the window opens and closes 10 times automatically. While the test is running, you can also start to move the insect screen manually by using the buttons

„Nach Unten“ (open) and „Nach oben“ (close) to test the function of the insect screen.

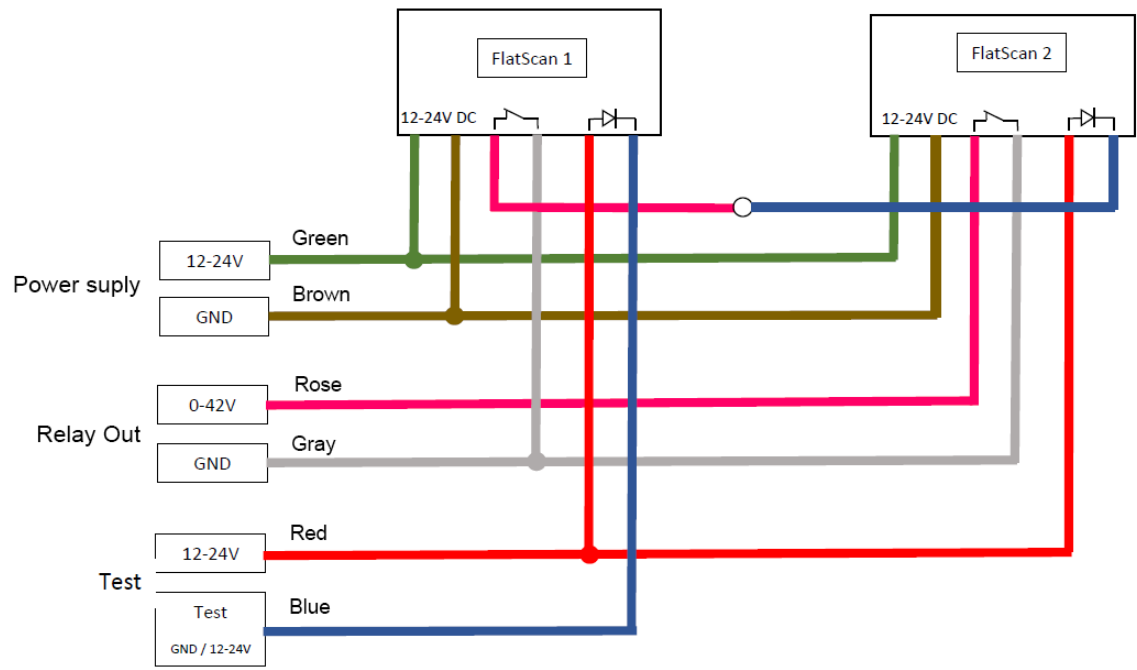
Once the test mode has finished the 10 opening and closing movements without any error, a window appears that asks you if the insect screen is working properly (Ist die Rollo getestet? / Ist die Prüfung erfolgreich?), and if you confirm (by pressing the “Ja” Button), the test result will be saved automatically in the folder „Protokolle“ which is located in the same folder where you start the ADE Project Explorer.



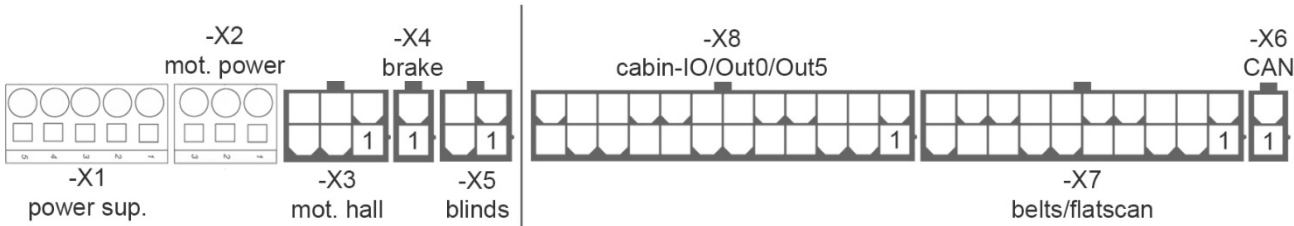
In case the test fails, you get a different popup window that asks you “Prüfung ist Fehlerhaft! Fehlercode = XXXX – Protokoll speichern?” If you press “Ja”, the error protocol will be saved, if you press “Nein”, you can start over and nothing will be saved. You can also always see the “Fehlercode”, which means error code, on the left side as the last point under “Error Register”. At the end of this manual, you find the error code list which describes all errors you may find while testing the window



SENSOR WIRING



TERMINAL ASSIGNMENT



X1		
1	+ 48V DC	40V DC from power supply (UP)
2	GND	
3	24V DC	24V DC from power supply (UE)
4	GND	
5	PE	PE

X2		
1	MA	Phase A
2	MB	Phase B
3	MC	Phase C

X3			X3		
1	H1	Hall Sensor 1	4	+5V DC	Powersupply, Hall Sensors
2	H2	Hall Sensor 2	5	GND	
3	H3	Hall Sensor 3	6	-	nc

X4		
1	+24V DC	Brake
2	GND	

X5			X5		
1	NO	230V AC rollo close	3	NO	230V AC rollo open
2	COM		4	COM	

X6			X6		
1	CAN H	CANopen	2	CAN L	CANopen

X7			X7		
1	GND	GND	11	GND	GND
2	+24V	Flatscan	12	In1	Relay Reopen NC
3	GND	Flatscan	13	In3	Relay Reopen
4	GND	Test GND	14	Out8	Test
5	+24V	Signal Reopen +24V	15	In3	Signal Reopen
6	+24V	Flatscan	16	GND	Flatscan
7	+24V	Belt Sensor right	17	GND	Belt Sensor right
8	+24V	Belt Sensor right	18	In5	Belt Sensor right
9	+24V	Belt Sensor left	19	GND	Belt Sensor left
10	+24V	Belt Sensor left	20	In7	Belt Sensor left

X8			X8		
1	+24V	Kabin Control	13	In6	Open Window
2	+24V	Kabin control	14	In4	Close Window
3	+24V	Kabin Control	15	In2	Open Rollo
4	+24V	Kabin Control	16	In0	Close Rollo
5	+24V	Kabin Control	17	AIIn0	Sensor alert
6	GND	Kabin Control	18	Out6	Window Lock
7	GND	Kabin Control	19	Out4	OPERATIONAL
8	GND	Kabin Control	20	Out3	ERROR
9	GND	Kabin Control	21	Out0	Window state
10	COM	not Used	22	COM	Floating W. State
11	NO	not Used	23	NO	Floating W. State
12	NC	not Used	24	NC	Floating W. State