

# PQDXXA-Z10

# PQDXXA-PROFINET-Z10

## Quick Guide for start-up

## English



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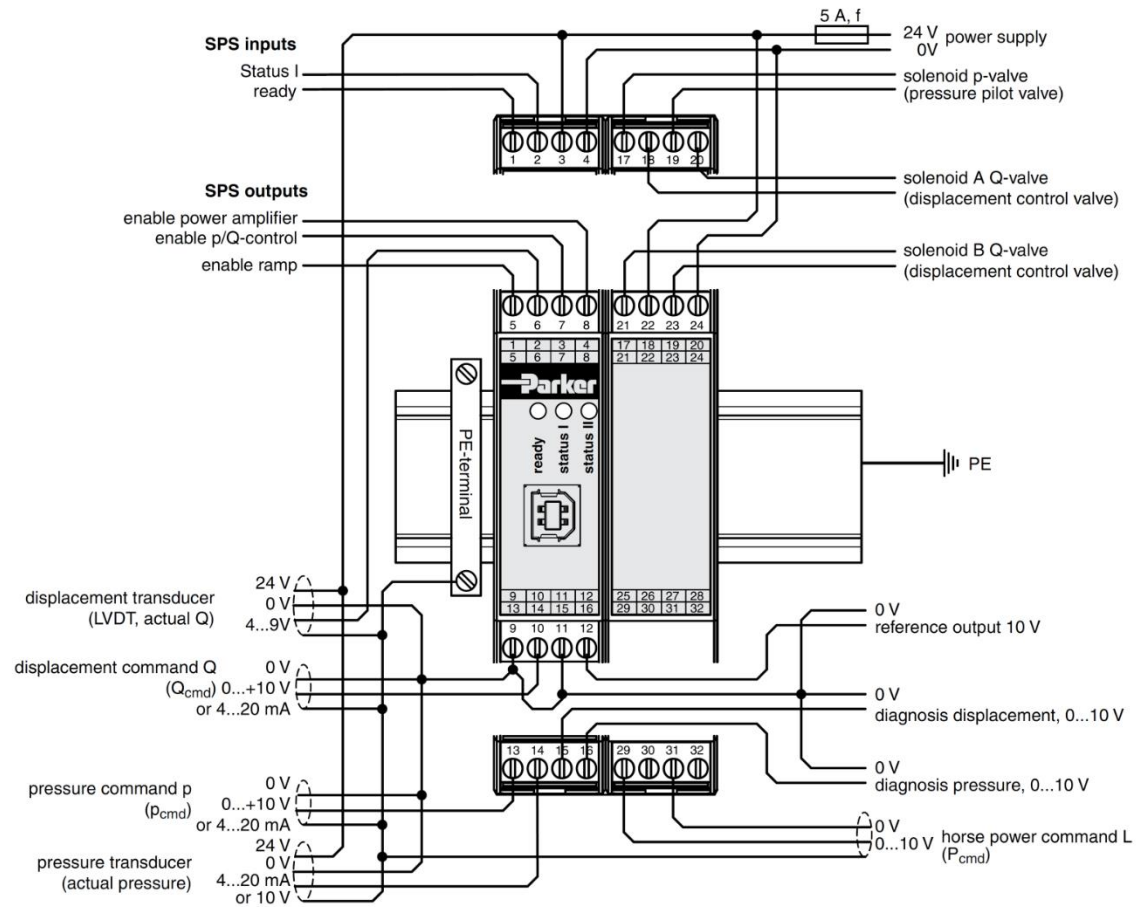
Effective: July 1<sup>st</sup> 2021

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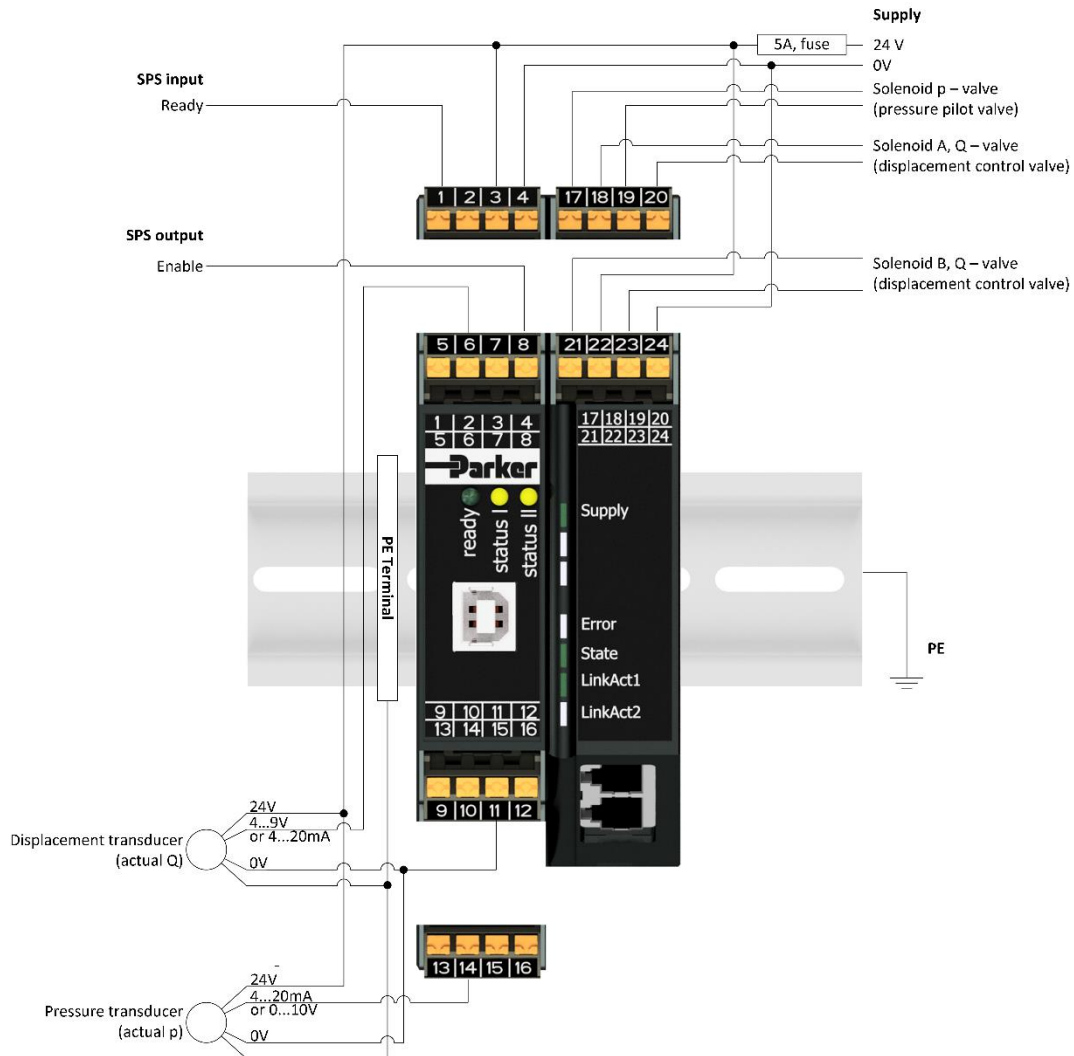
# Electrical wiring

## PQDXXA-Z10



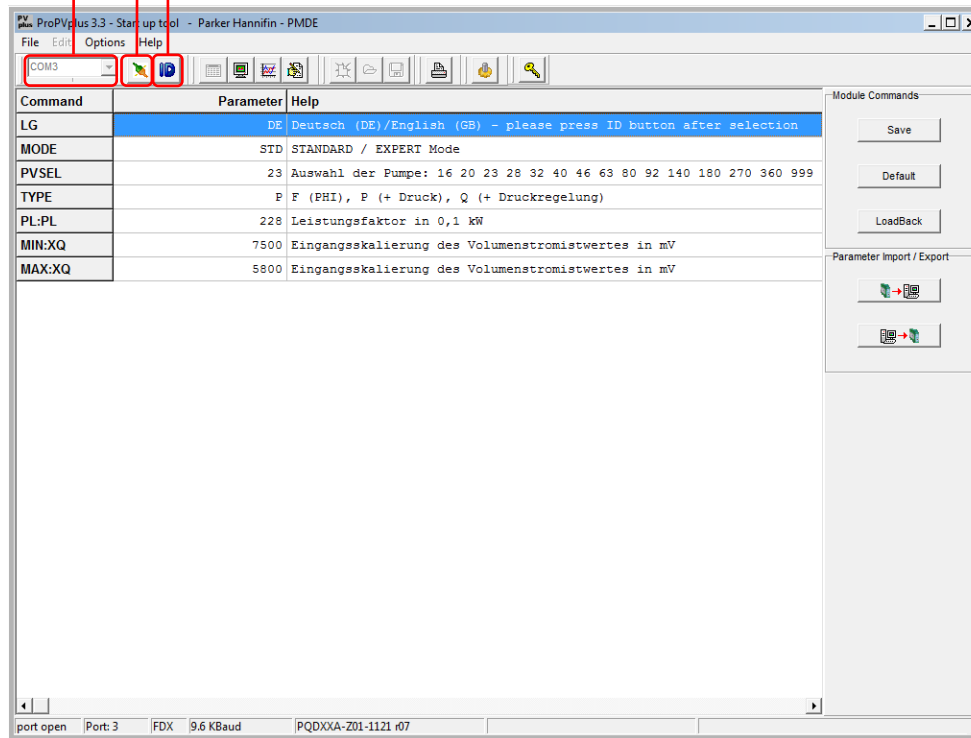
# Electrical wiring

## PQDXXA-PROFINET-Z10



# Connection ProPVplus → Module

1. Interface Selection COM – Port
2. Connection to the module
3. Module identification – parameter set loads



Prerequisite: Installation of ProPVPlus3.x software and connection of the programming cable PQDXXA-ZXX-Kabel to the module. Base parameter sets for all displacement types are preinstalled on the module.

Software download: [www.parker.com/pmde](http://www.parker.com/pmde)

# Basic settings of a parameter set

## 1. LG – Language Selection

DE German  
EN English

## 2. MODE – Selection of the security level

STD Standard, All parameters for a first start up are shown.  
EXP Expert, Parameter for further settings and the control system optimization are shown additionally to the standard parameter list.

## 3. PVSEL – Selection of the pump displacement

## 4. TYPE – Selection of the control type

F Swivel angle control  
P Swivel angle control and open loop pressure control  
Q Swivel angle control and closed loop pressure control  
→ The horsepower control is active since a pressure sensor is installed

## 5. DS:P\_VALVE – Design Series of the pressure R/V

11 Design series 11 (16V / 1320mA)  
12 Design series 12 (12V / 2200mA)  
→ Please refer to pressure R/Vs the type plate!

## 6. PL:PL – Horsepower control

→ Standard setting = Maximum according to the chosen pump displacement

## 7. MIN:XQ / MAX:XQ – Displacement sensor adjustment

→ standard adjustment = voltage signal (LVDT)  
→ special adjustment = current signal (CIP-sensor)  
MODE „EXP“ → AIN:XQ = „C“ → MIN:CXQ / MAX:CXQ

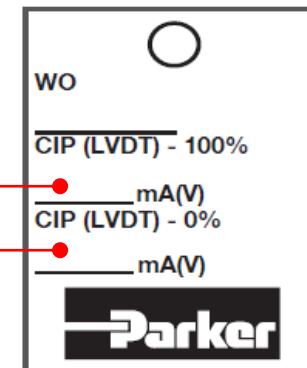
\*Pumps in design series 7 are equipped with CIP-sensor

Command	Parameter	Help
LG	EN	Deutsch (DE)/English (EN) - Bitte ID Button nach der Änderung drücken
MODE	STD	STANDARD / EXPERT Mode
CO	FD*/UD*	Selection of control option: FP*/UP*, FD*/UD*
PVSEL	16	Pump displacement selection [cm³/rev]: 16 20 23 28 32 40 46 63 80 92 140 180 270 360 CUS
TYPE	F	F (swivel angle ctrl.), P (+ open loop pressure ctrl.), Q (+ closed loop pressure ctrl.)
DS:P_VALVE	11	Pressure valve design series
PL:PL	178	Power limitation in 0,1 kW (always activ if pressure sensor installed)
MIN:XQ	7500	Input scaling of the swivel angle sensor signal in mV
MAX:XQ	6340	Input scaling of the swivel angle sensor signal in mV

Please review the Installation Manual for further parameter information.

LVDT → MAX:XQ x 1000 or  
CIP → MAX:CXQ x 100

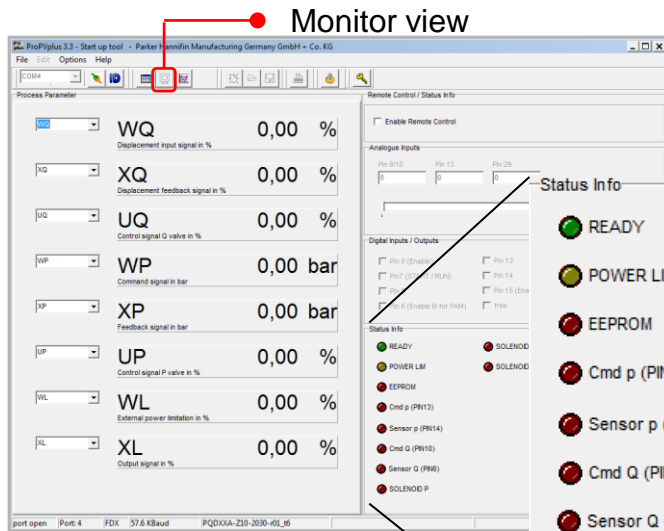
LVDT → MIN:XQ x 1000 or  
CIP → MIN:CXQ x 100



Enclosed in the delivery content



# Online error diagnosis ...with ProPVplus



On → no Error, module ready for use  
 Flashing → Error, module not ready to use.  
 Please review the points below for diagnosis.

Power limitation active

Error, Swivel Angle Valve Solenoid A/B  
 (lead fracture or inappropriate connection)

Memory error

Error, command signal p  
 (lead fracture, only for current signals)

Error, pressure sensor  
 (lead fracture or sensor malfunction)

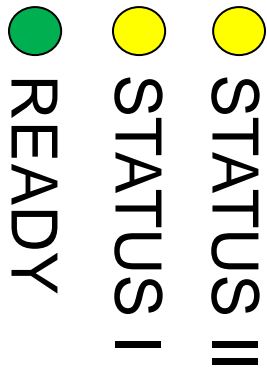
Error, command signal Q  
 (lead fracture, only for current signals)

Error, Swivel angle sensor  
 (sensor malfunction or missing/wrong sensor scaling)

Error, pressure valve solenoid  
 (lead fracture or inappropriate connection)

# Offline error diagnosis

## ...control unit



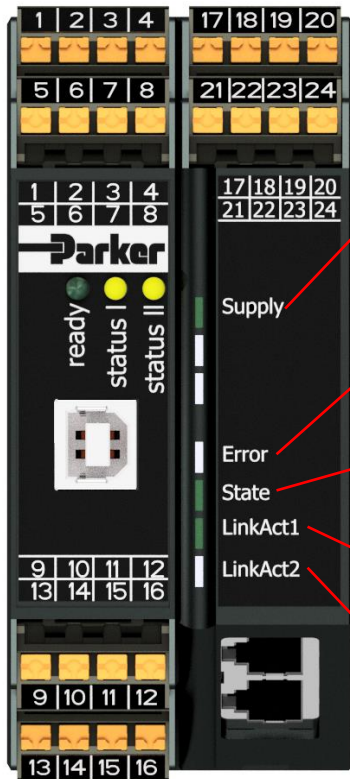
Error Category	Error Description	STATUS I	STATUS II
EEPROM	Memory Error		
Command Signal*	Command Signal Pressure*		
Command Signal*	Command Signal Swivel Angle*		
Sensor	Pressure Sensor		
Sensor	Swivel Angle Sensor		
Solenoid	Pressure Valve		
Solenoid	Swivel Angle Valve (Solenoid A)		
Solenoid	[Swivel Angle Valve (Solenoid B)]		

The power limitation is active if READY is not flashing and both STATUS I and STATUS II is on.



# Offline error diagnosis

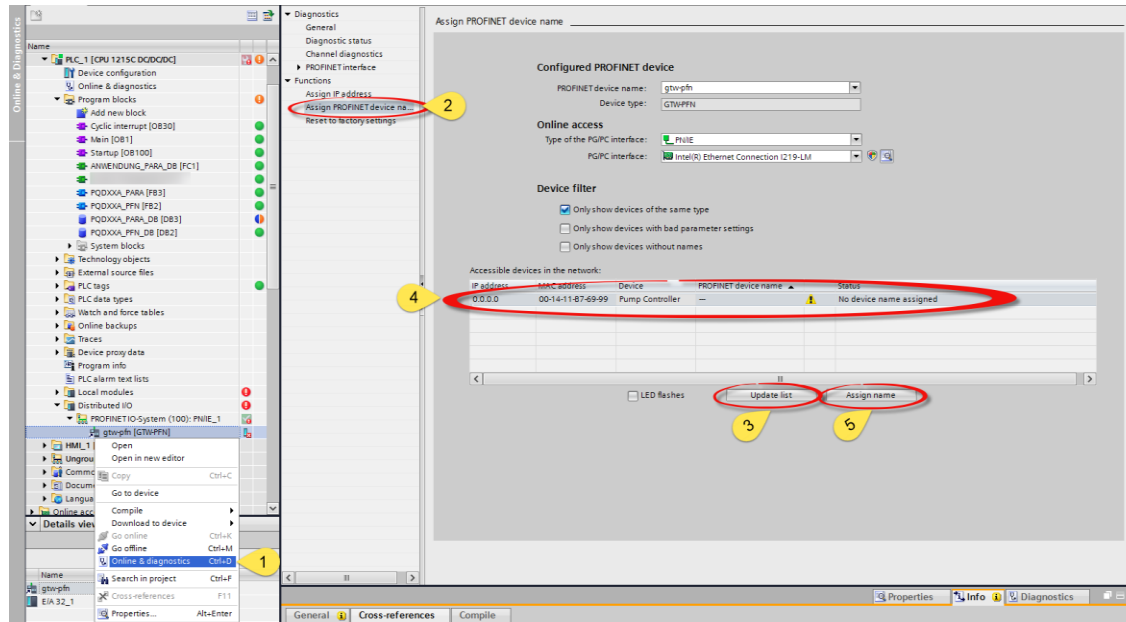
## ...fieldbus unit



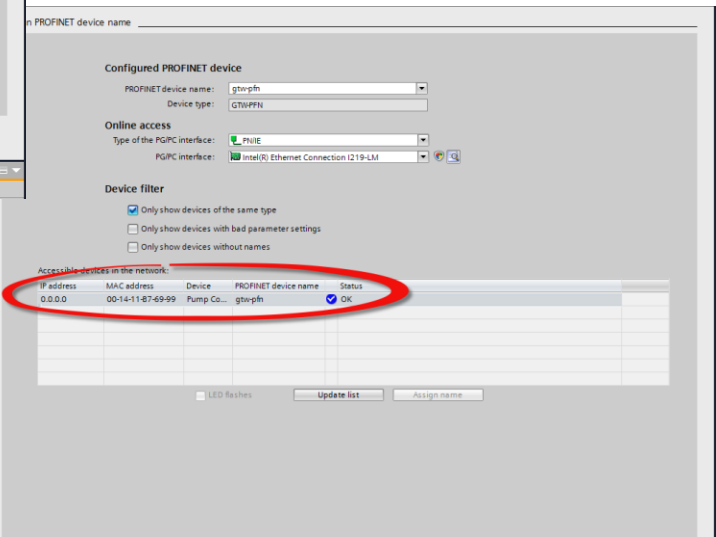
LEDs	LED-Function of the system
GREEN	Supply: <b>OFF:</b> No power supply on the field bus note. <b>ON:</b> 3,3V system supply.
LEDs	LED-Function of the field bus
RED	Error: <b>OFF:</b> No field bus error. <b>ON:</b> Error on field bus communication. <b>FLASHING:</b> Field device flash test on PROFINET.
GREEN	State: <b>OFF:</b> Bus not started. <b>ON:</b> Connection. <b>FLASHING 2Hz:</b> Configuration mode (Bus started, waiting for connection). <b>FLASHING 10Hz:</b> Error condition.
GREEN	LinkAct1: <b>OFF:</b> No Connection on port 1 available. <b>ON (pulsing):</b> Working network connected to port 1. <b>FLICKERING:</b> Data transfer with the network on port1.
GREEN	LinkAct2: <b>OFF:</b> No Connection on port 2 available. <b>ON (pulsing):</b> Working network connected to port 2. <b>FLICKERING:</b> Data transfer with the network on port2.

# Start-up Fieldbus Module

## Assign Profinet device name



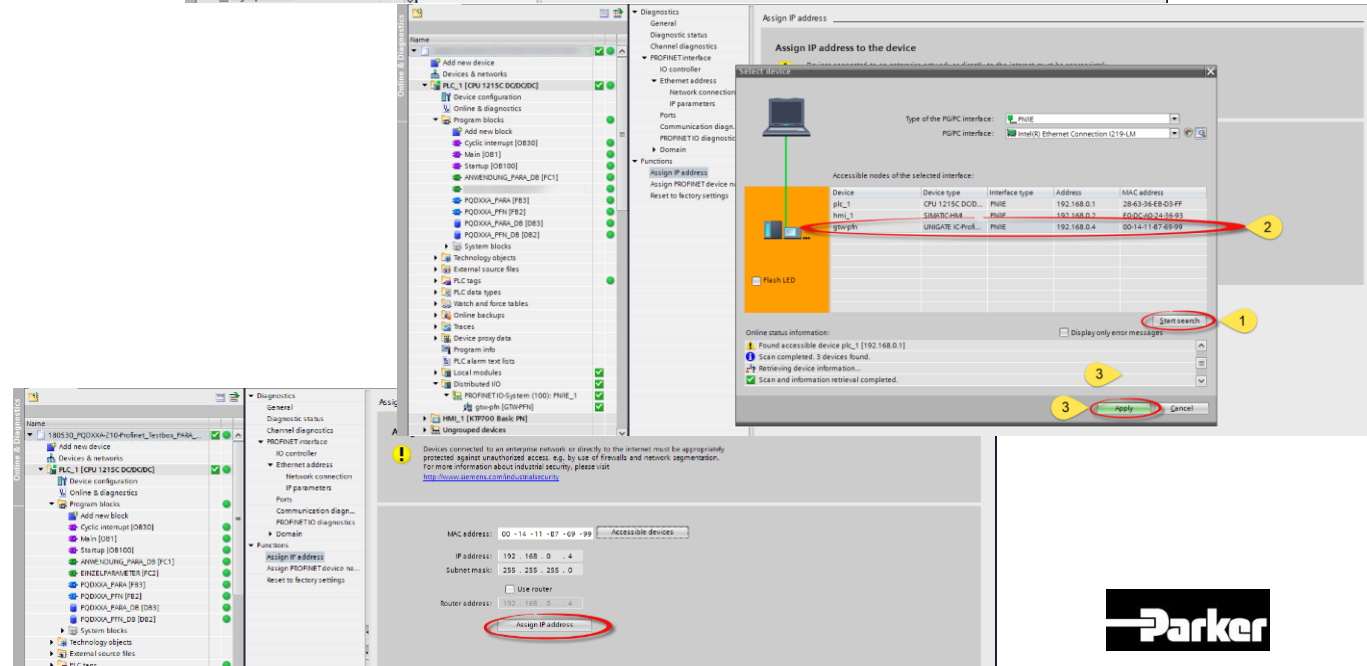
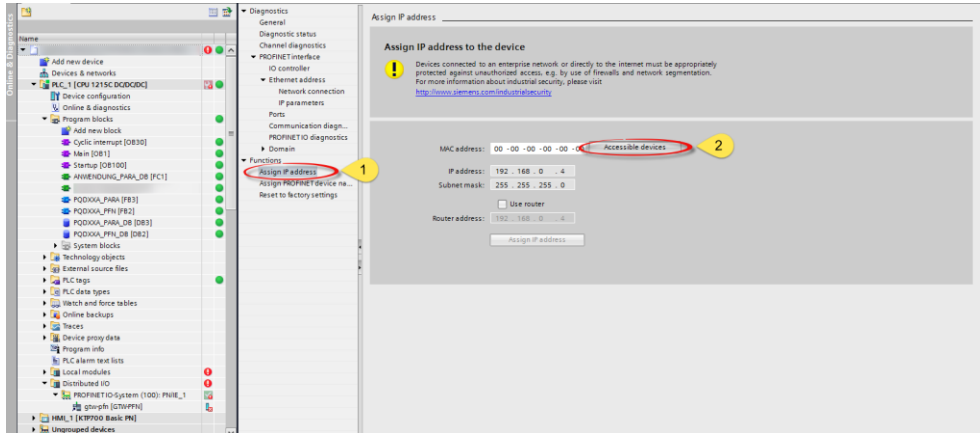
1. Online & diagnostics
2. Tab: Functions → Assign PROFINET device name
3. Update List
4. Select Module
5. Assign Name



# Start-up Fieldbus Module

## Assign IP address

1. Online & diagnostics
2. Tab: Functions → Assign IP address
3. Accessible devices
4. Search & Select
5. Assign IP



# FAQs

Why is no Connection to the module possible?	Module has not been recognised by computer. Reinstallion of the USB Driver
No function at the swivel angle control. Pump does not up stroke	Wrong scaling of the swivel angle sensor. Re-scale of the sensor, when necessary with voltmeter.
Actual Value – Swivel angle higher than 100%	Wrong scaling of the swivel angle sensor. Re-scale of the sensor, when necessary with voltmeter.
Pump is not down stroking	Pump is below the minimum controllable pressure. Installation of a preload valve or pressure rising in the circuit.
Pressure function (TYPE = P) inaccurate	<ul style="list-style-type: none"> <li>• Fine tuning of CP:MINV (response threshold) and CP:MAXV (nominal current)</li> <li>• Fine tuning of the linearization (CC)</li> </ul>
When is a changed parameter active?	Immediately after input
Are the base parameter sets deleted with changes at the parameter?	Load back of the original base parameter set with „Default“.
When is the power limitation active?	The power limitation is active since a pressure reducer is installed and connected. With PL:EXT controls a external or internal (PL:PL) command signal.
How to limit the pressure function (systems maximum pressure)	The Parameter MAX:WP is used to limit the maximum pressure.
Is a switch of the ENABLE signal needed after each detected error?	<p>SENS = AUTO → The module gets automatically reset after the failure or the defect is corrected.</p> <p>SENS = ON → Sensor monitoring is activated. Reset has to be done manually.</p>
Does the module detect a change of p- and Q-Solenoid cables?	This error can't be detected by the module.
Does the module detect a change of Q-Solenoid cables?	This error can't be detected by the module.

# Contact

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