SUPPLEMENTARY INFORMATION

EN

Translation of the Original

XPT 200 PN | CCT 36X PN | CCT 37X PN

DigiLine gauge with Profinet interface

PFEIFFER VACUUM

Dear Customer,

Thank you for choosing a Pfeiffer Vacuum product. Your new gauge is designed to support you in your individual application with maximum performance and without malfunctions. The name Pfeiffer Vacuum stands for high-quality vacuum technology, a comprehensive and complete range of top-quality products and first-class service. From this extensive, practical experience we have gained a large volume of information that can contribute to efficient deployment and to your personal safety.

In the knowledge that our product must avoid consuming work output, we trust that our product can offer you a solution that supports you in the effective and trouble-free implementation of your individual application.

Please read these operating instructions before putting your product into operation for the first time. If you have any questions or suggestions, please feel free to contact info@pfeiffer-vacuum.de.

Further operating instructions from Pfeiffer Vacuum can be found in the Download Center on our website.

Disclaimer of liability

These operating instructions describe all models and variants of your product. Note that your product may not be equipped with all features described in this document. Pfeiffer Vacuum constantly adapts its products to the latest state of the art without prior notice. Please take into account that online operating instructions can deviate from the printed operating instructions supplied with your product.

Furthermore, Pfeiffer Vacuum assumes no responsibility or liability for damage resulting from the use of the product that contradicts its proper use or is explicitly defined as foreseeable misuse.

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1 About this manual

IMPORTANT
Read carefully before use.
Keep the manual for future consultation.

1.1 Validity

This supplementary information describes important deviations from the standard product and is valid only in conjunction with the valid operating instructions.

1.1.1 Applicable documents

Designation	Document
Operating instructions for "Digital capacitive gauge" CCT 36x	BG 6011
Operating instructions for "Digital capacitive gauge" CCT 37x	BG 6012
Operating instructions for "Digital piezo-resistive gauge" CPT 200	PG 0021
Operating instructions for "Digital Pirani gauge" PPT 200	PG 0022
Operating instructions for "Digital piezo/Pirani gauge" RPT 200	PG 0023
Operating instructions for "Digital Pirani/Bayard Alpert gauge" HPT 200	PG 0024
Operating instructions for "Digital Pirani/cold cathode gauge" MPT 200	PG 0025
Declaration of conformity	A component of these instructions

Tbl. 1: Applicable documents

You can find these documents in the Pfeiffer Vacuum Download Center.

1.1.2 Variants

This document applies to the following products:

- **DigiLine gauge with Profinet interface**

The part number is found on the rating plate of the product.

Pfeiffer Vacuum reserves the right to make technical changes without prior notification.

Information that relates to only one of the products is indicated accordingly.

The figures in this document are not to scale.

The figures show the product with a DN 16 ISO-KF vacuum connection, however, they also apply to the other vacuum connections where applicable.

Dimensions are in mm unless stated otherwise.

1.2 Conventions

1.2.1 Abbreviations

Abbreviation	Explanation
ATM	Atmosphere
dec	Decimal
DHCP	Communication protocol for assigning the network configuration (dynamic host communication protocol)
EEPROM	Electrically erasable programmable read-only memory
GCF	Gas correction factor
GSD	Generic station description
GSDML	Generic station description markup language

Abbreviation	Explanation
hex	Hexadecimal
HV	High vacuum
I&M 5	Identification and maintenance data set 5
ID	Identification
IDM	Module identifier
IDS	Submodule identifier
IEEE	Institute of Electrical and Electronics Engineers
IEEE 754	IEEE 754 standard for binary floating-point arithmetic for microprocessor systems
IO	Input/output
IP	Internet protocol
L/A	Link/activity
LED	Light-emitting diode
P	Port
PN	Profinet (process field network)
Profinet	Open industrial Ethernet standard for automation (process field network)
SP	Switch-point
SPI	Standard for a synchronous serial data bus (serial peripheral interface)
TIA Portal	Totally integrated automation portal
USI	User structure identifier

Tbl. 2: Abbreviations used

1.3 Trademark proof

- Profinet® and Profibus® are trademarks of Profibus Nutzerorganisation e.V.
- Binder® is a trademark of Franz Binder GmbH + Co. Elektrische Bauelemente KG.
- TIA Portal® is a trademark of Siemens Aktiengesellschaft.

2 Product description

2.1 Function

The electrically insulated Profinet interface is set up with a 2-port switch and supports 100-Mbit/s full-duplex communication. The gauge has 2 connections for connecting to a Profinet system. The "RS-485" provides a voltage supply.

Serial interface "RS-485"

Information on the "RS-485" connection can be found in the corresponding operating instructions of the gauge, standard version.

Correction factor for gas type dependent gauges

You can write the correction factors into the memory of the gauge via the serial interface. Information can be found in the corresponding operating instructions of the gauge standard version.

2.1.1 Structure of the CCT gauge

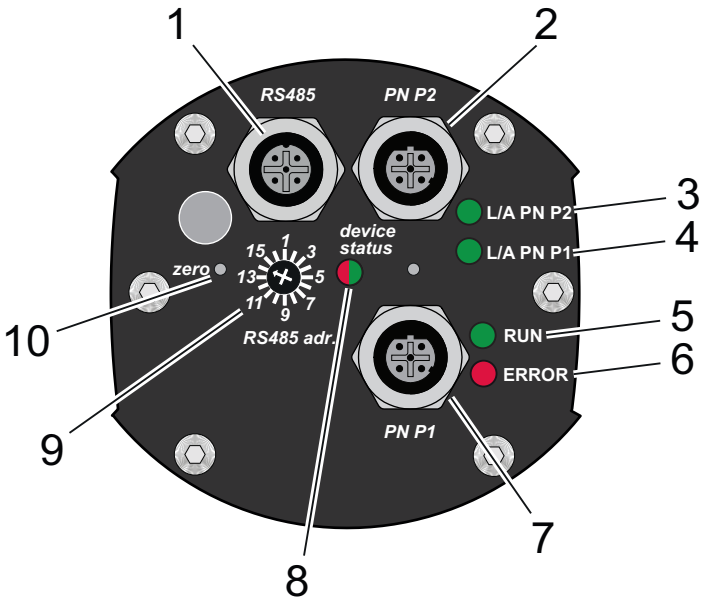

Fig. 1: Structure of the CCT gauge

1 "RS-485" connector
2 Profinet port 2
3 LED Profinet status on port 2
4 LED Profinet status on port 1
5 LED communication status
6 LED Profinet error
7 Profinet port 1
8 Status LED for the gauge
9 RS-485 address selector switch
10 "Zero" button (calibration)

2.1.2 Structure of the xPT gauge

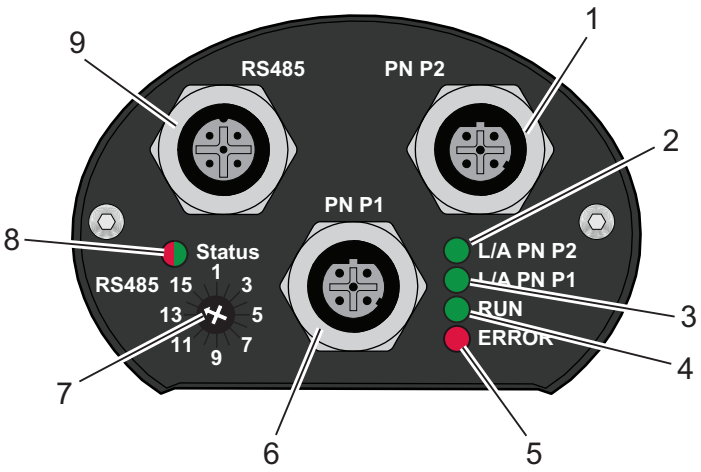

Fig. 2: Structure of the xPT gauge

1 Profinet port 2
2 LED Profinet status on port 2
3 LED Profinet status on port 1
4 LED communication status
5 LED Profinet error
6 Profinet port 1
7 RS-485 address selector switch
8 Status LED for the gauge
9 "RS-485" connector

2.2 "Profinet" connection

The "Profinet" connections each consist of a 4-pin M12 socket (female, D-coded) with threaded coupling.

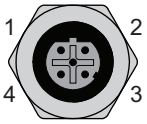

Fig. 3: "Profinet" connection assignment

1 Transmission data (Tx+)
2 Reception data (Rx+)
3 Transmission data (Tx-)
4 Reception data (Rx-)

3 Installation

⚠ DANGER

Danger to life due to dangerous contact voltage

Voltages above 30 V (AC) or 60 V (DC) are considered dangerous in accordance with IEC 61010. If you come into contact with dangerous contact voltage, this can result in injury through electric shocks or even death.

- ► Only apply protected extra-low voltage (PELV).

NOTICE

Damage from connecting while energized

You will damage the gauge if you connect it while energized.

- ► Disconnect the voltage supply before installing the gauge.
- ► Attach the connection cable only when in zero potential state.

NOTICE

Data transmission error due to simultaneous operation on both interfaces

If you attempt to operate the gauge simultaneously via the RS-485 and Profinet interfaces, this will result in incorrect data and interference with the data transmission.

- ► Operate the gauge via only one of the two interfaces.
- ► Only use the RS-485 connector in Profinet operation to supply voltage to the gauge.

Vacuum connection

You can obtain information on the vacuum connection in the corresponding operating instructions of the standard version of the gauge.

3.1 Establishing electric connection

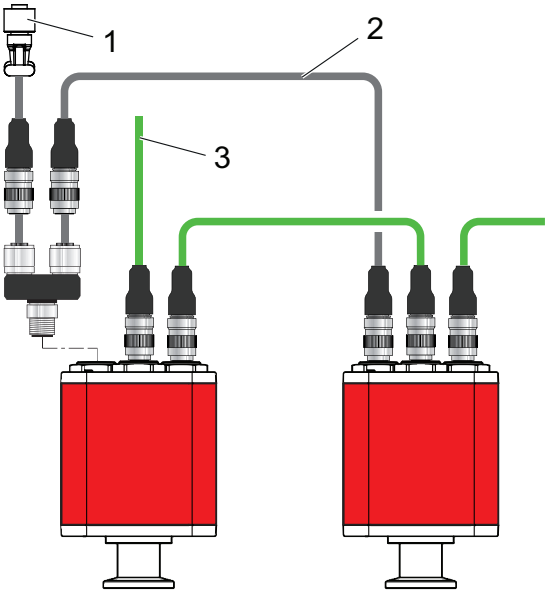

Fig. 4: Connection to Profinet and the voltage supply

1 Voltage source 24 V DC
2 Voltage supply via RS-485 connection
3 Connection to Profinet Controller

Connecting Profinet and voltage supply

- ► Use connection cables from the DigiLine accessories range.
- ► Connect the voltage supply in accordance with the gauge's standard instructions.

3.2 Configuring Profinet connection for CCT gauges

Profinet configuration tools

There are various suppliers of configuration tools for Profinet configuration. The configuration procedure is identical. The figures show the Siemens TIA portal by way of an example.

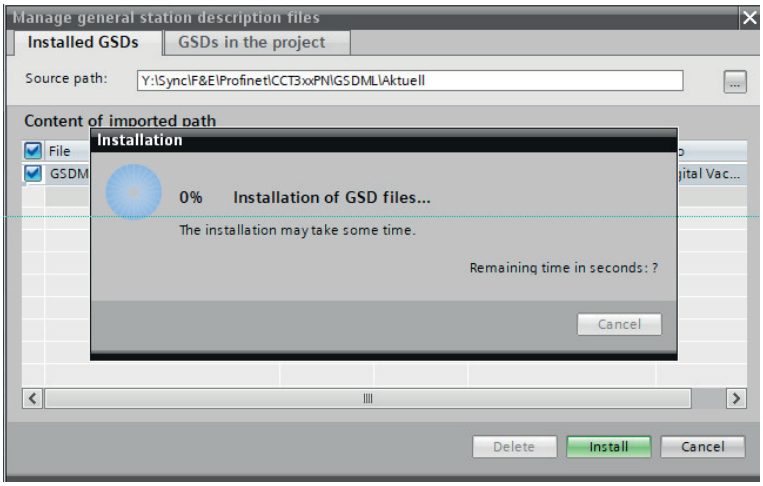

Fig. 5: Importing GSDML file

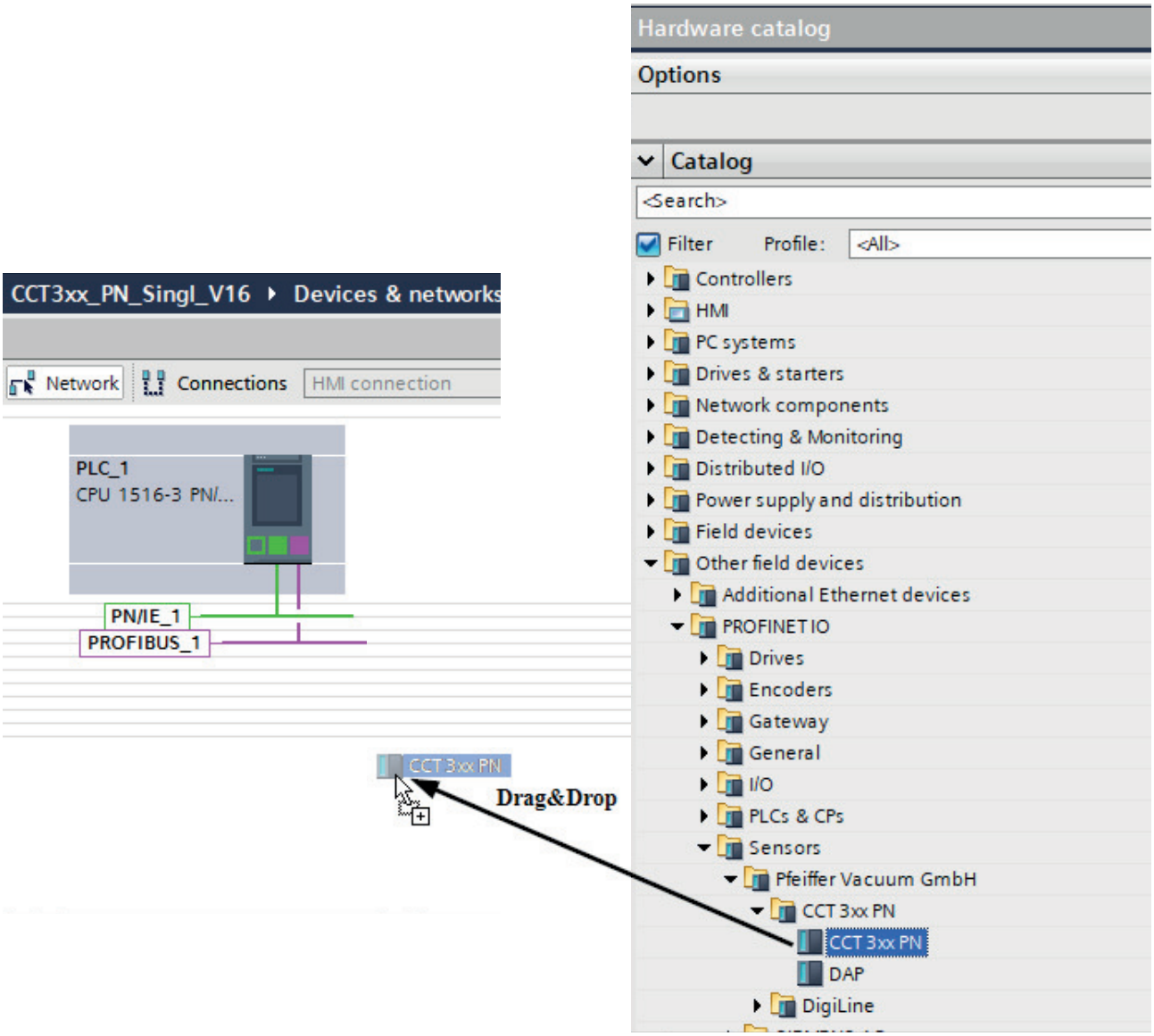

Fig. 6: Dragging and dropping CCT gauge into network area

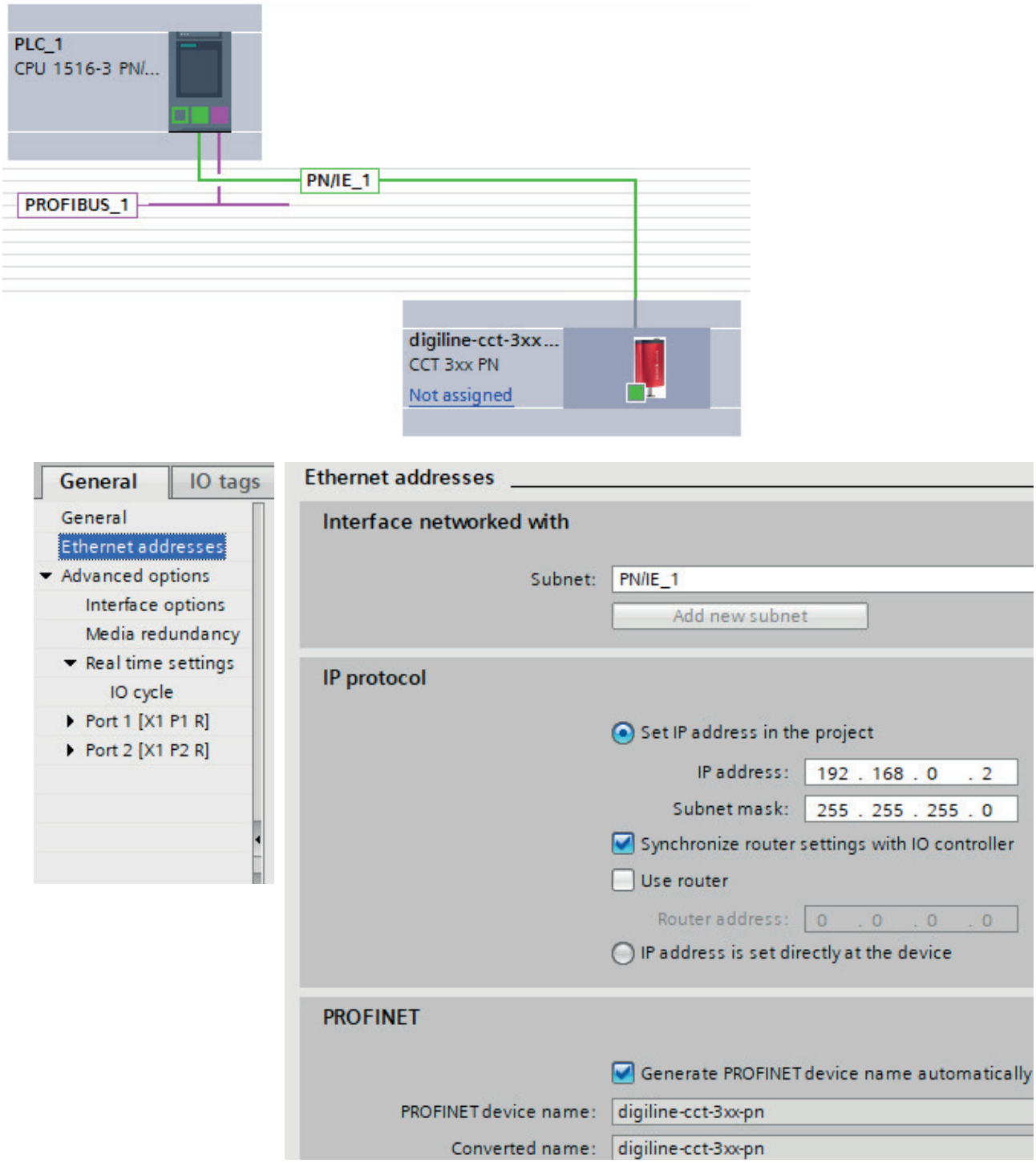

Fig. 7: Integration and preparation

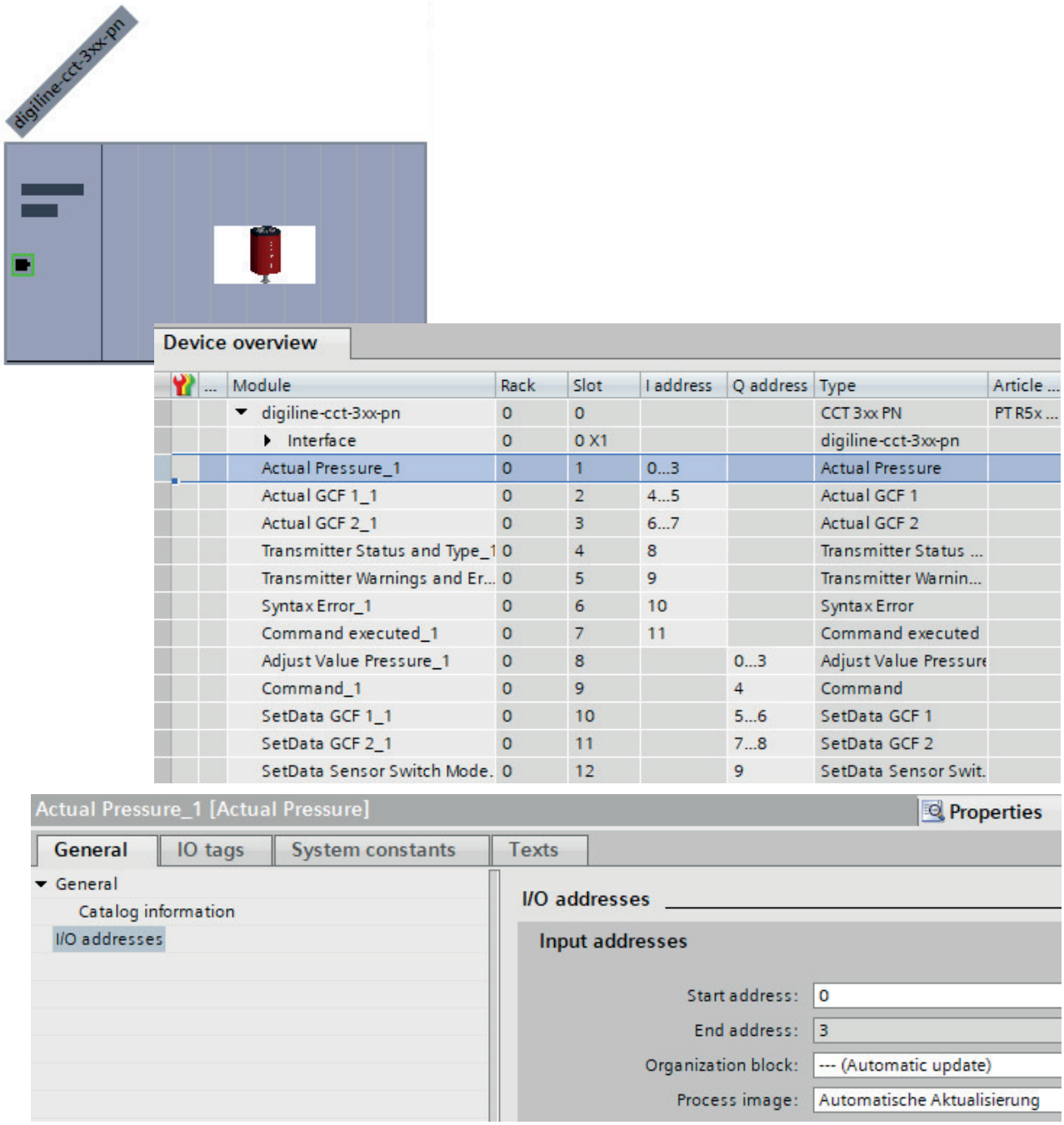

Fig. 8: Integrating input and output modules

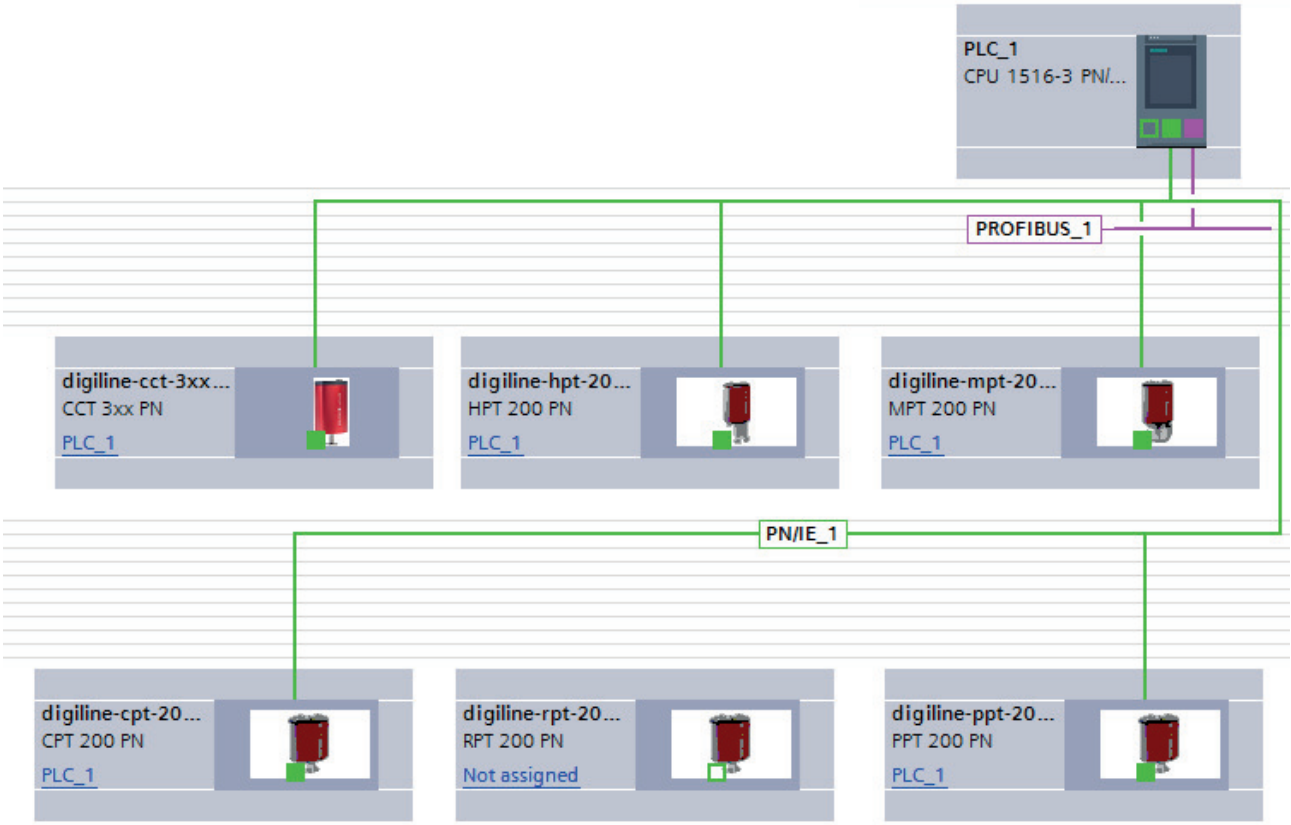

Fig. 9: View after correct configuration

Procedure

1. Download the gauge's GSDML file from the Pfeiffer Vacuum Download Center.
2. Open the configuration tool.
3. Import the unzipped files (GSDML file and image) into the process control.
   – You will find the CCT gauge in the path PROFINET IO/Sensors/Pfeiffer Vacuum GmbH/CCT 3xx PN.
4. Drag and drop CCT 3xx PN into the configuration tool's network area and integrate CCT 3xx PN there.
5. Select the input and output modules for the gauges you are using and then drag and drop all catalog objects from "Actual Pressure" to "Set Correction Factor BA" into the active area.
6. Change the input and output addresses if necessary.
7. Compile the entries.
8. Check the correct function of the entries online.

3.3 Configuring Profinet connection for xPT gauges

Profinet configuration tools

There are various suppliers of configuration tools for Profinet configuration. The configuration procedure is identical. The figures show the Siemens TIA portal by way of an example.

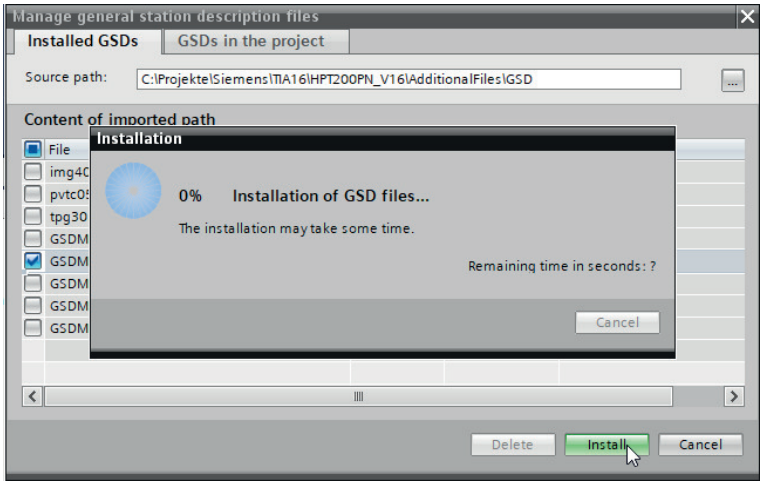

Fig. 10: Importing GSDML file

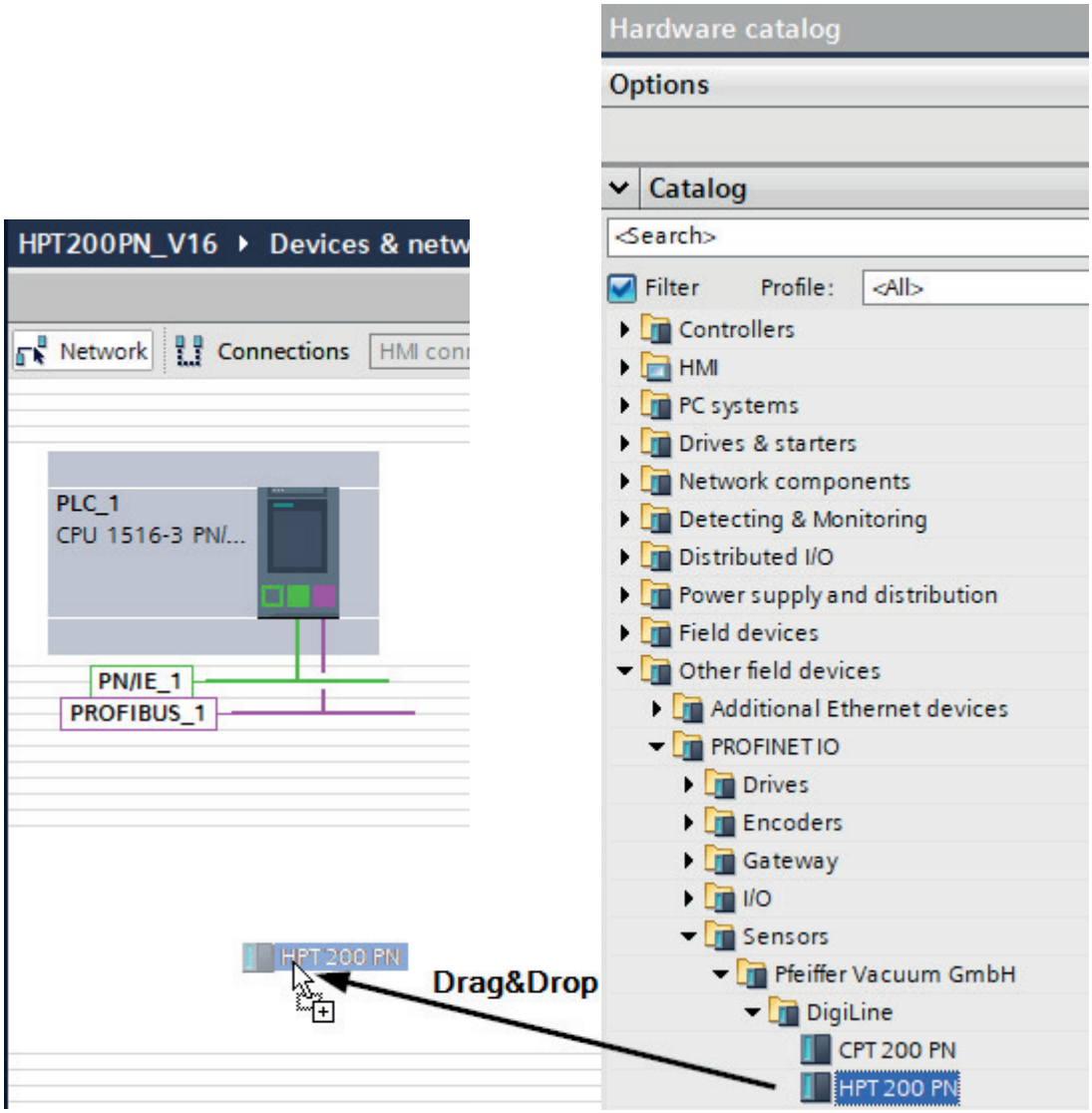

Fig. 11: Dragging and dropping the xPT gauge into the network area

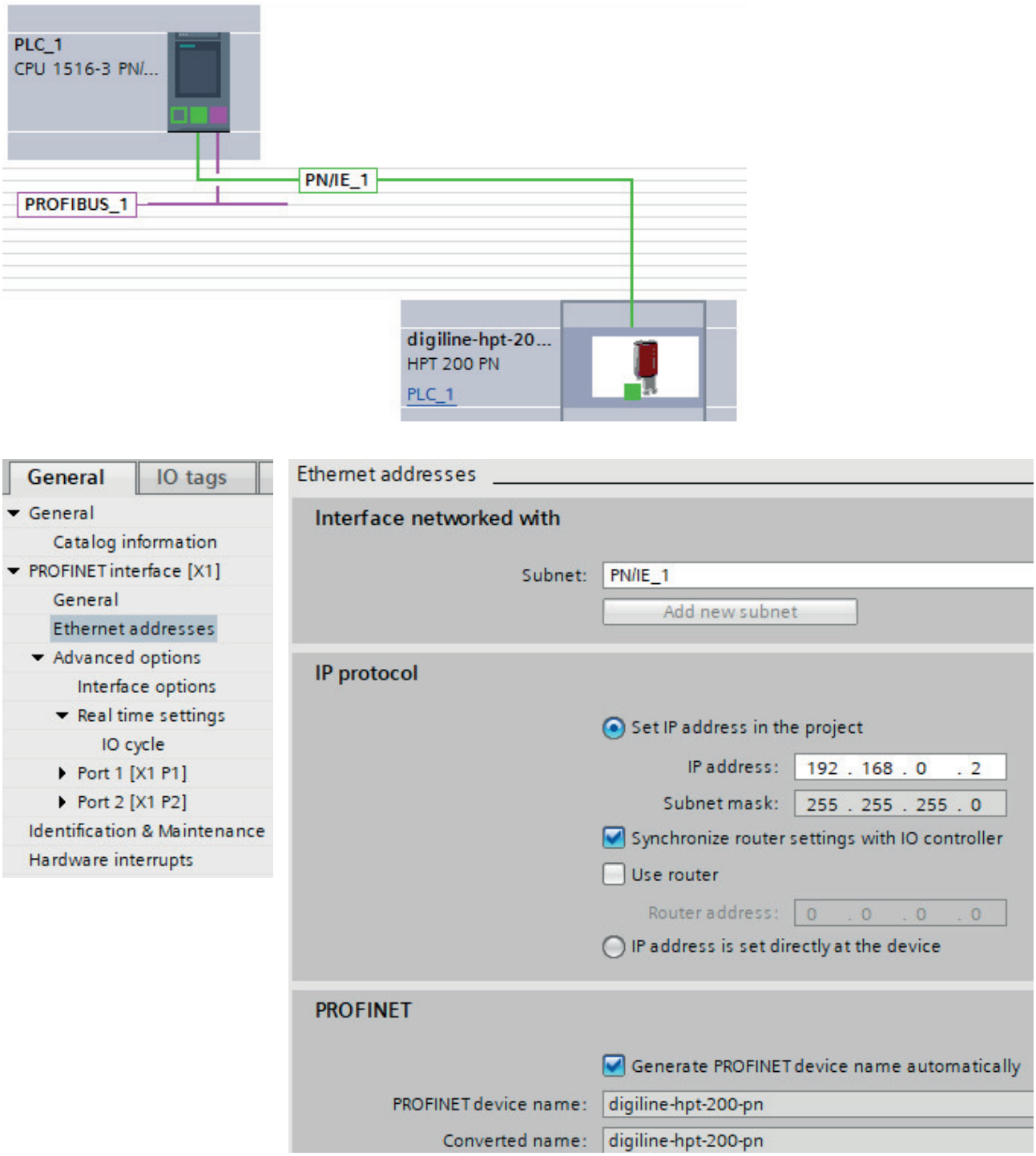

Fig. 12: Integration and preparation

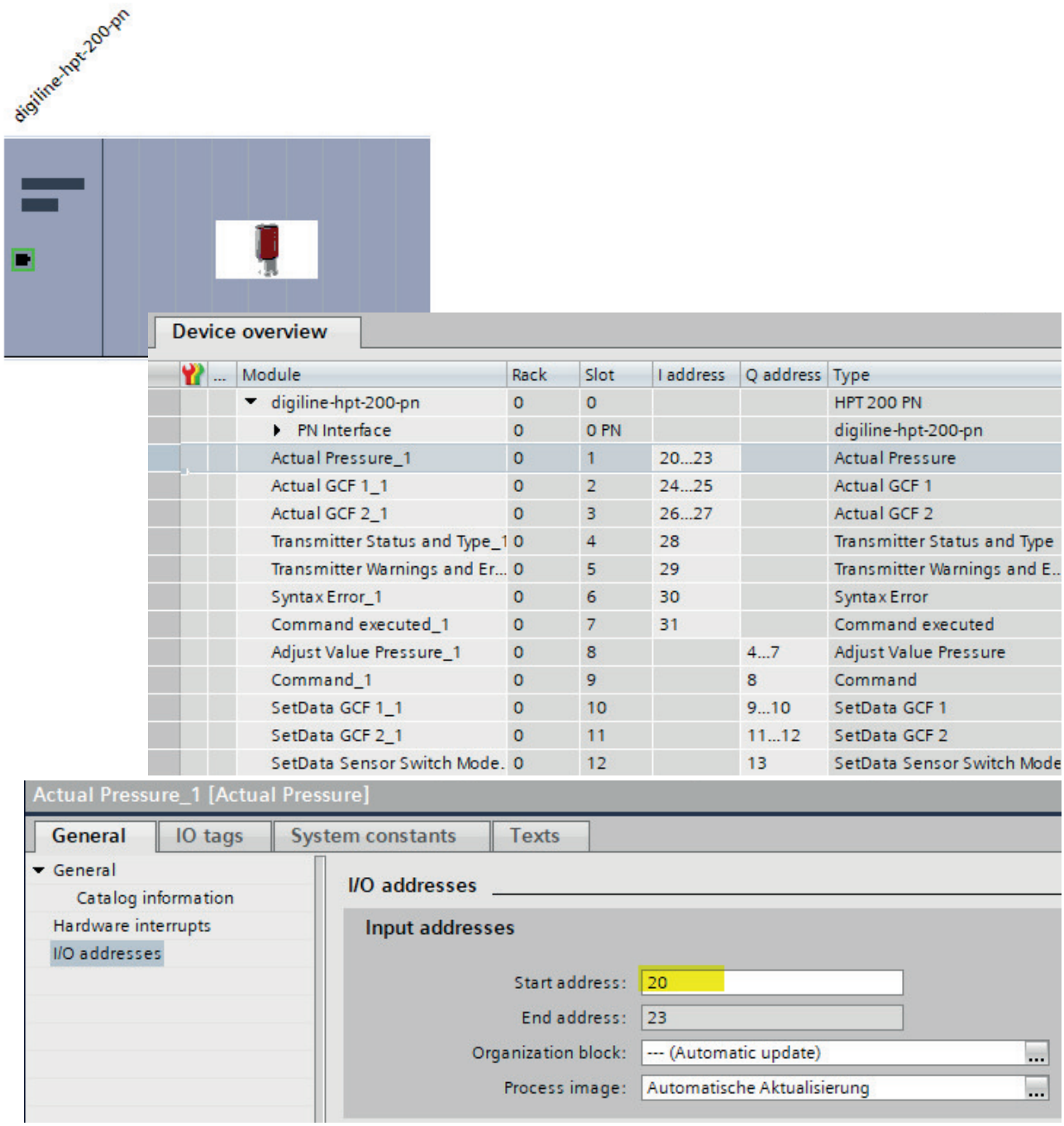

Fig. 13: Integrating input and output modules

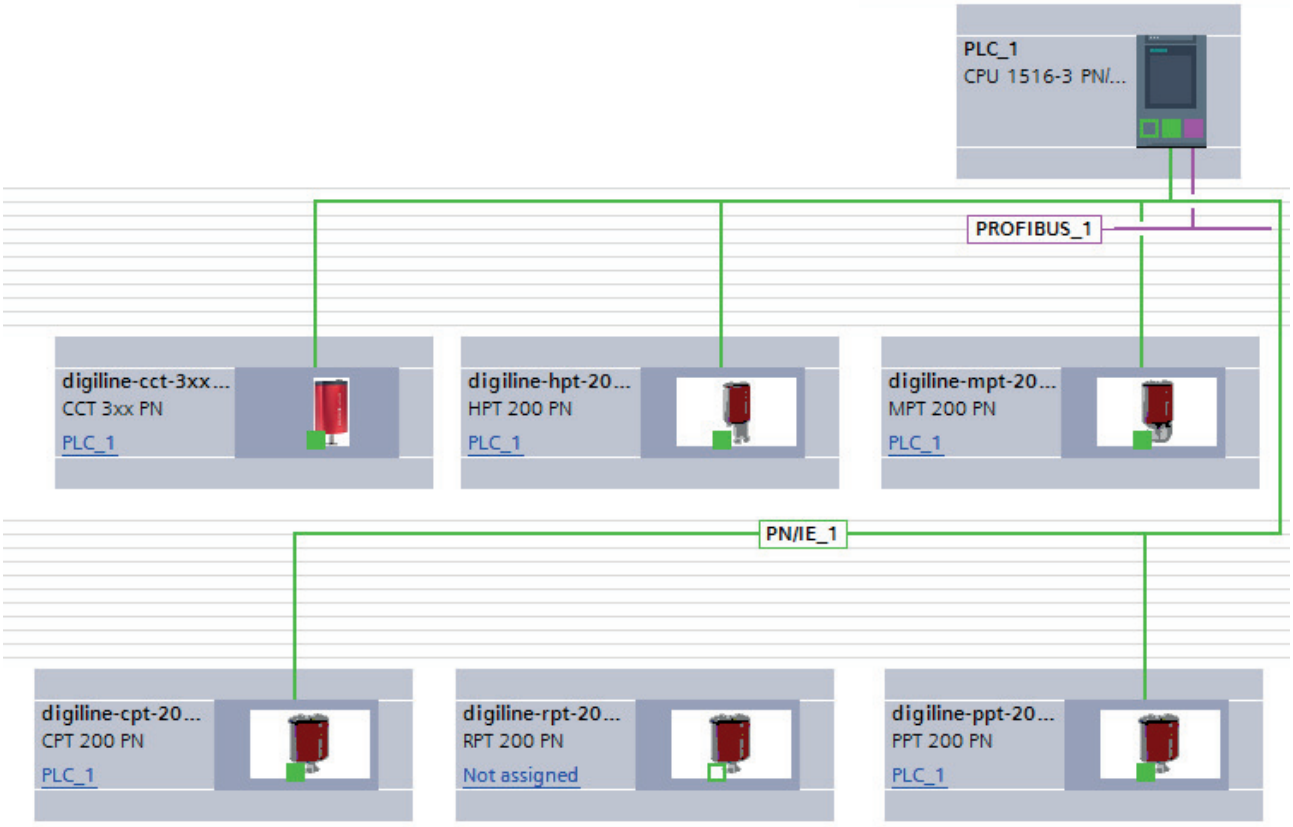

Fig. 14: View after correct configuration

Procedure

1. Download the gauge's GSDML file from the Pfeiffer Vacuum Download Center.
2. Open the configuration tool.
3. Import the unzipped files (GSDML file and image) into the process control.
   – You will find the xPT gauge in the path PROFINET IO/Sensors/Pfeiffer Vacuum GmbH/Digi-Line.
4. Drag and drop xPT 200 PN into the configuration tool's network area and integrate xPT 200 PN there.
   – All of the input and output modules are automatically allocated.
5. Change the input and output addresses if necessary.
6. Compile the entries.
7. Check the correct function of the entries online.

4 Operation

NOTICE

Data transmission error due to simultaneous operation on both interfaces

If you attempt to operate the gauge simultaneously via the RS-485 and Profinet interfaces, this will result in incorrect data and interference with the data transmission.

- ► Operate the gauge via only one of the two interfaces.
- ► Only use the RS-485 connector in Profinet operation to supply voltage to the gauge.

With the input modules, the gauge transmits status, data, and parameters to the controller. With the output modules, the controller transmits control commands and parameter changes to the gauge.

The following data types are used in the input and output modules:

Data type	Format
Float32	32-bit floating point number (IEEE)
Unsigned8	Unsigned 8-bit number
Unsigned16	Unsigned 16-bit number
Unsigned32	Unsigned 32-bit number
Boolean	Logical value (false/true)

Tbl. 3: Profinet data types

4.1 Input modules

Byte	Bit	Data type	Contents	
0	-	Float32	Actual pressure	
1				
2				
3				
4	-	Unsigned16	Actual GCF 1 [1)]	
5				
6	-	Unsigned16	Actual GCF 2 [2)]	
7				
8	0	Boolean	Transmitter status and type	Gauge type
	1			Gauge type
	2			Gauge type
	3			Degas active
	4			HV sensor inactive
	5			Filament
	6			Sensor switch mode
	7			Sensor switch mode

1) More information can be found in the operating instructions for the standard version of the gauge.

2) More information can be found in the operating instructions for the standard version of the gauge.

Byte	Bit	Data type	Contents	
9	0	Boolean	Transmitter warnings and errors	Warning overrange
	1			Warning underrange
	2			-
	3			Error Filament 1 defective
	4			Error Filament 2 defective
	5			Error Internal communication
	6			Error EEPROM failure
	7			Error Sensor defective/stacked out
10	0	Boolean	Syntax error	-
	1			-
	2			Sensor switch mode value mismatch
	3			GCF 1, value mismatch
	4			GCF 2, value mismatch
	5			Pressure adjust, value mismatch
	6			Command supported
	7			Command invalid
11	-	Unsigned8	Command executed	

Tbl. 4: Input data: Gauge to Profinet controller

4.1.1 Actual pressure (bytes 0 – 3)

For all gauges, bytes 0 to 3 contain the current pressure value.

4.1.2 Actual GCF 1 (bytes 4 – 5)

Bytes 4 and 5 are available only for gauges with Pirani sensor.

Bytes 4 and 5 contain the current correction factor (0.2 to 8.0) with 2 decimal places and a factor of 100 for the Pirani sensor.

Examples

- Example: Correction factor 0.20 = 020
- Example: Correction factor 1.00 = 100
- Example: Correction factor 8.00 = 800

4.1.3 Actual GCF 2 (bytes 6 – 7)

Bytes 6 and 7 are available only for gauges with HV sensor.

Bytes 6 and 7 contain the current correction factor (0.2 to 8.0) with 2 decimal places and a factor of 100 for the HV sensor.

Examples

- Example: Correction factor 0.20 = 020
- Example: Correction factor 1.00 = 100
- Example: Correction factor 8.00 = 800

4.1.4 Transmitter status and type (byte 8)

The available functions are dependent on the gauge.

Bit	Function	Description	Default	Gauge
0	Gauge type	1 = RPT 200 PN 2 = PPT 200 PN 3 = MPT 200 PN 4 = HPT 200 PN 5 = CPT 200 PN 6 = CCT 3xx PN	-	All gauges
1				
2				

Bit	Function	Description	Default	Gauge
3	Degas active	0 = off 1 = Activated	0	HPT 200 PN
4	HV sensor inactive	0 = controlled by Pirani sensor 1 = always off	0	MPT 200 PN HPT 200 PN
5	Filament	0 = filament 1 [3)] 1 = filament 2	0	HPT 200 PN
6 7	Sensor switch mode	0 = direct sensor changeover at 1 hPa 1 = continuous transition at 5 – 15 hPa	1	RPT 200 PN
		0 = direct sensor changeover at 0.001 hPa 1 = continuous transition at 0.001 – 0.002 hPa	1	MPT 200 PN
		0 = direct sensor changeover at 4 × 10^{-4} hPa 1 = continuous transition at 0.001 – 0.002 hPa 2 = continuous transition at 0.002 – 0.005 hPa	2	HPT 200 PN

Tbl. 5: Input data: Transmitter status and type

4.1.5 Transmitter warnings and errors (byte 9)

Warnings and malfunction messages are dependent on the gauge.

Bit	Error	Gauge
0	Warning overrange	All gauges
1	Warning underrange	
2	-	
3	Error Filament 1 defective	HPT 200 PN
4	Error Filament 2 defective	
5	Error Internal communication	All gauges
6	Error EEPROM failure	
7	Error Sensor defective/stacked out	

Tbl. 6: Input data: Transmitter warnings and errors

4.1.6 Syntax error (byte 10)

The information on received and processed commands is dependent on the gauge. Set bits (1) indicate syntax errors, with the exception of bit 6 "Command supported".

Bit	Function	Description	Gauge
2	Sensor Switch Mode Value mismatch	Used setting value incorrect or outside permissible range	RPT 200 PN MPT 200 PN HPT 200 PN
3	GCF 1, value mismatch		PPT 200 PN RPT 200 PN MPT 200 PN HPT 200 PN
4	GCF 2, value mismatch		MPT 200 PN HPT 200 PN
5	Pressure adjust, Value mismatch		All gauges

3) Bit 5 shows when the gauge switches to the second (spare) filament and the first filament is thus exhausted.

Bit	Function	Description	Gauge
6	Command supported	0 = received command is not supported (error) 1 = received command is supported (no error)	All gauges
7	Command invalid	0 = No error 1 = received command not permissible or not executable (error)	All gauges

Tbl. 7: Input data: Syntax error

4.1.7 Command executed (byte 11)

For all gauges, byte 11 contains the value of the last command executed that was written to Command.

4.2 Output modules

All commands are assigned to 2 groups:

- General commands that apply to all gauges
- Commands that apply only to certain gauges

The following generally applies:

- The gauge runs each command once only.
- The gauge only ever enters the last command executed in "Command executed".

Byte	Data type	Contents
0	Float32	Adjust Value Pressure
1		
2		
3		
4	Unsigned8	Command
5	Unsigned16	SetData GCF 1
6		
7	Unsigned16	SetData GCF 2
8		
9	Unsigned8	Set Data Sensor Switch Mode

Tbl. 8: Output data: Profinet controller to gauge

4.2.1 Adjust Value Pressure (Bytes 0 – 3)

For all gauges, bytes 0 to 3 contain the values for HV and ATM calibration.

4.2.2 Command (byte 4)

Byte 4 contains the data for the command to be executed.

Command			Gauge					
hex	dec	Name	CCT	CPT	HPT	MPT	PPT	RPT
0x00	0	Zero Command	✓	✓	✓	✓	✓	✓
0x01	1	Adjust High Vacuum	✓	✓	✓	✓	✓	✓
0x02	2	Adjust Atmospheric Pressure	-	✓	✓	✓	✓	✓
0x03	3	Set Gas Correction Factors (GCF)	-	-	GCF 1/2	GCF 1/2	GCF 1	GCF 1
0x39	57	Set Sensor Switch Mode	-	-	-	-	-	✓
0x46	70	Activate Cold Cathode	-	-	-	✓	-	-
0x47	71	Deactivate Cold Cathode	-	-	-	✓	-	-
0x4D	77	Set Sensor Switch Mode	-	-	-	✓	-	-

Command			Gauge					
hex	dec	Name	CCT	CPT	HPT	MPT	PPT	RPT
0x50	80	Activate Hot Cathode	-	-	✓	-	-	-
0x51	81	Deactivate Hot Cathode	-	-	✓	-	-	-
0x55	85	Activate Degas	-	-	✓	-	-	-
0x56	86	Deactivate Degas	-	-	✓	-	-	-
0x57	87	Set Sensor Switch Mode	-	-	✓	-	-	-

Tbl. 9: Commands and their use

Zero Command
A new setting sequence always starts with the "Zero Command".

Executing "Zero Command"

► Prior to any command, execute the **Zero Command**.
– The "Zero Command" clears "Command executed" and the syntax error.

4.2.3 SetData GCF 1 (bytes 5 – 6)

Bytes 5 and 6 are available only for gauges with Pirani sensor.

Bytes 5 and 6 contain the new correction factor (0.2 to 8.0) with 2 decimal places and a factor of 100 for the Pirani sensor.

Examples

- Example: Correction factor 0.20 = 020
- Example: Correction factor 1.00 = 100
- Example: Correction factor 8.00 = 800

4.2.4 SetData GCF 2 (bytes 7 – 8)

Bytes 7 and 8 are available only for gauges with HV sensor.

Bytes 7 and 8 contain the new correction factor (0.2 to 8.0) with 2 decimal places and a factor of 100 for the HV sensor.

Examples

- Example: Correction factor 0.20 = 020
- Example: Correction factor 1.00 = 100
- Example: Correction factor 8.00 = 800

4.2.5 SetData sensor switch mode (byte 9)

The available functions are dependent on the gauge.

Byte	Function	Description	Gauge
9	Set Data Sensor Switch Mode	0 = direct sensor changeover at 1 hPa 1 = continuous transition at 5 – 15 hPa	RPT 200 PN
		0 = direct sensor changeover at 0.001 hPa 1 = continuous transition at 0.001 – 0.002 hPa	MPT 200 PN
		0 = direct sensor changeover at 4×10^{-4} hPa 1 = continuous transition at 0.001 – 0.002 hPa 2 = continuous transition at 0.002 – 0.005 hPa	HPT 200 PN

Tbl. 10: Output data: Switching ranges

4.3 Profinet operating mode display via LED

LED	Status	Display	Meaning	
			xPT gauge	CCT gauge
L/A PN P1 L/A PN P2	Off		Supply voltage off No connection to Profinet	
	Lights up green		Connection to Profinet, no data exchange	
	Green fast flash		Data exchange	
RUN	Off		Supply voltage off Bus not started	
	Flashes green		-	Bus started, IO controller in stop state Bus started, synchronization not completed Bus started, in configuration mode Profinet device signaling
	Green flashing (10 Hz)		Error	-
	Green flashing (2 Hz)		Bus started, in configuration mode	-
	Lights up green		Profinet connection established	
ERROR	Off		Supply voltage off No error	
	Flashes red		Profinet node flash test	Device name not set
	Flashes red twice		-	Network address not set
	Flashes red three times		-	Identification error
	Lights up red		Error	

Tbl. 11: Behavior and meaning of the Profinet LED

5 Malfunctions

Warranty
Malfunctioning of the equipment as a direct result of contamination or wear, as well as wear parts, is not covered by the warranty.

Rectifying malfunctions (reset)
In the event of a malfunction, Pfeiffer Vacuum recommends disconnecting the supply voltage, and then reconnecting after 5 seconds.

5.1 Malfunction diagnosis for CCT gauge

If a serious error of type "ExtChannelErrorType" occurs, a "Diagnostic Event" 0x8002h (Extended Channel Diagnostic) in the "User Structure Identifier" (USI) is triggered. The error type is transmitted in the "ExtChannelErrorType" variables. Additional information on the source of the error is transmitted in the "ExtChannelAddValue" variables. After this, the "ERROR" LED lights red continuously and the gauge is permanently disconnected from the Profinet network. The gauge can now no longer be addressed by the Profinet controller. Recommissioning is possible after correcting the error, disconnecting and reconnecting the voltage supply (reset).

User structure identifier: 8002				
Variable (field name)	**Data type**	**Byte**	**Value**	**Error**
ExtChannelErrorType	Unsigned8	-	0	No error
			1	Hardware error
			2	EEPROM error
			3	Internal memory error
ExtChannelAddValue	Unsigned32	3	1	Fixed value
		2	Bit 0	Wrong sensor
			Bit 1	SPI data error
			Bit 2	SPI timeout
		1	-	CCT extended error byte Low
		0	-	CCT extended error byte High

Tbl. 12: Manufacturer-specific diagnosis for CCT gauges

Error	**Value**	**Remedy**
No error	0	-
Hardware error	1	1. Switch the gauge off, wait 5 seconds and then switch it back on (reset). 2. Replace the gauge if the error persists.
EEPROM error	2	1. Switch the gauge off, wait 5 seconds and then switch it back on (reset). 2. Replace the gauge if the error persists.
Internal memory error	3	1. Switch the gauge off, wait 5 seconds and then switch it back on (reset). 2. Replace the gauge if the error persists.

Tbl. 13: Error correction for ExtChannelErrorType

5.2 Malfunction diagnosis for xPT gauge

The malfunction diagnosis distinguishes between 2 categories of system errors:

- Major error (values 1 – 5)
- Warnings (values 6 – 14)

Warnings are displayed for one minute for information purposes, after which the gauge automatically resets the warning.

User structure identifier: 218				
Name	System Error			
Field Name	Data type	Byte Offset	Bit Offset	Bit length
Error Code: (Parameter ID: DiagSysError)	Unsigned8	0		
Detail Error Code:	Unsigned16	1		

Tbl. 14: Manufacturer-specific diagnosis for xPT gauges

Parameter ID: DiagSysError		
Malfunction	**Value**	**Remedy**
No error	0	-
Hardware error	1	1. Switch the gauge off, wait 5 seconds and then switch it back on (reset). 2. Replace the gauge if the error persists.
EEPROM error	2	1. Switch the gauge off, wait 5 seconds and then switch it back on (reset). 2. Replace the gauge if the error persists.
Internal memory error	3	1. Switch the gauge off, wait 5 seconds and then switch it back on (reset). 2. Replace the gauge if the error persists.
Profinet hardware error	4	1. Switch the gauge off, wait 5 seconds and then switch it back on (reset). 2. Replace the gauge if the error persists.
Read/write error	5	1. Switch the gauge off, wait 5 seconds and then switch it back on (reset). 2. Replace the gauge if the error persists.
RS transmit buffer overflow	7	• Notify Pfeiffer Vacuum Service if this warning repeatedly occurs.
RS receive buffer overflow	8	• Notify Pfeiffer Vacuum Service if this warning repeatedly occurs.
RS timeout	9	• Notify Pfeiffer Vacuum Service if this warning repeatedly occurs.
General Profinet error	10	• Notify Pfeiffer Vacuum Service if this warning repeatedly occurs.
RS error during parity or checksum check	11	• Notify Pfeiffer Vacuum Service if this warning repeatedly occurs.
Profinet configuration error	13	• Notify Pfeiffer Vacuum Service if this warning repeatedly occurs.
Profinet buffer overflow	14	• Notify Pfeiffer Vacuum Service if this warning repeatedly occurs.

Tbl. 15: Parameter ID: DiagSysError

6 Technical data

Parameter	CCT 36x PN	CCT 37x PN
Interfaces	RS-485, Profinet	
"Profinet" interface, device side	2× Binder M12 bushing, 4-pin, D-coded	
Supply: Power consumption max.	5 W	15 W

Tbl. 16: Technical data for Profinet interface with CCT gauges

Parameter	CPT 200 PN	PPT 200 PN	RPT 200 PN	HPT 200 PN	MPT 200 PN
Interfaces	RS-485, Profinet				
"Profinet" interface, device side	2× Binder M12 bushing, 4-pin, D-coded				
Supply: Power consumption max.	3 W	4 W	4 W	10.5 W	4.5 W

Tbl. 17: Technical data for Profinet interface with xPT gauges

The products CPT 200 PN, PPT 200 PN, RPT 200 PN and MPT 200 PN

- conform to the UL standards

  UL 61010-1, 3rd edition (2016), R:2019
  Safety requirements for electrical equipment for measurement, control and laboratory use
  Part 1: General requirements

- are certified to the CSA standards

  CSA C22.2 No. 61010-1-12, 3rd edition (2012), U1, U2, A1
  Safety requirements for electrical equipment for measurement, control and laboratory use
  Part 1: General requirements

The products CCT 36x PN and CCT 37x PN

- conform to the UL standards

  UL 61010-1, 3rd edition (2016), R:2019
  Safety requirements for electrical equipment for measurement, control and laboratory use
  Part 1: General requirements

- are certified to the CSA standards

  CSA C22.2 No. 61010-1-12, 3rd edition (2012), U1, U2, A1
  Safety requirements for electrical equipment for measurement, control and laboratory use
  Part 1: General requirements

EC Declaration of Conformity

This declaration of conformity has been issued under the sole responsibility of the manufacturer.

Declaration for product(s) of the type:

DigiLine gauge with Profinet interface

CCT 361 PN	CCT 371 PN
CCT 362 PN	CCT 372 PN
CCT 363 PN	CCT 373 PN
CCT 364 PN	CCT 374 PN
CCT 365 PN	CCT 375 PN

We hereby declare that the listed product satisfies all relevant provisions of the following **European Directives**.

Low voltage 2014/35/EC

Electromagnetic compatibility 2014/30/EU

Restriction of the use of certain hazardous substances 2011/65/EU

Restriction of the use of certain hazardous substances, delegated directive 2015/863/EU

Harmonized standards and applied national standards and specifications:

DIN EN IEC 61000-6-2:2019

DIN EN IEC 61000-6-3:2022

DIN EN 61010-1:2020

DIN EN IEC 61326-1:2022

DIN EN IEC 63000:2019

Signature:

Pfeiffer Vacuum GmbH
Berliner Straße 43
35614 Asslar
Germany

(Daniel Sälzer)
Managing Director

Asslar, 2023-01-26

CE

PFEIFFER VACUUM

EC Declaration of Conformity

This declaration of conformity has been issued under the sole responsibility of the manufacturer.

Declaration for product(s) of the type:

DigiLine gauge with Profinet interface

CPT 200 PN

PPT 200 PN

RPT 200 PN

HPT 200 PN

MPT 200 PN

We hereby declare that the listed product satisfies all relevant provisions of the following **European Directives**.

Low voltage 2014/35/EC

Electromagnetic compatibility 2014/30/EU

Restriction of the use of certain hazardous substances 2011/65/EU

Restriction of the use of certain hazardous substances, delegated directive 2015/863/EU

Harmonized standards and applied national standards and specifications:

DIN EN IEC 61326-1:2022

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Signature:

Pfeiffer Vacuum GmbH
Berliner Straße 43
35614 Asslar
Germany

(Daniel Sälzer)
Managing Director

Asslar, 2023-01-26

CE

PFEIFFER VACUUM

UK Declaration of Conformity

This declaration of conformity has been issued under the sole responsibility of the manufacturer.

Declaration for product(s) of the type:

DigiLine gauge with Profinet interface

CCT 361 PN	CCT 371 PN
CCT 362 PN	CCT 372 PN
CCT 363 PN	CCT 373 PN
CCT 364 PN	CCT 374 PN
CCT 365 PN	CCT 375 PN

We hereby declare that the listed product satisfies all relevant provisions of the following **British Directives**.

Electromagnetic Compatibility Regulations 2016

The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012

Applied standards and specifications:

EN IEC 61000-6-2:2019

EN IEC 61000-6-3:2021

EN 61010-1:2010 + A1:2019 + A1:2019/AC:2019

EN IEC 61326-1:2021

EN IEC 63000:2018

The manufacturer's authorized representative in the United Kingdom and the authorized agent for compiling the technical documentation is Pfeiffer Vacuum Ltd, 16 Plover Close, Interchange Park, MK169PS Newport Pagnell.

Signature:

Pfeiffer Vacuum GmbH
Berliner Straße 43
35614 Asslar
Germany

(Daniel Sälzer)
Managing Director

Asslar, 2023-01-26

UK CA

PFEIFFER VACUUM

UK Declaration of Conformity

This declaration of conformity has been issued under the sole responsibility of the manufacturer.

Declaration for product(s) of the type:

DigiLine gauge with Profinet interface

CPT 200 PN

PPT 200 PN

RPT 200 PN

HPT 200 PN

MPT 200 PN

We hereby declare that the listed product satisfies all relevant provisions of the following **British Directives**.

Electromagnetic Compatibility Regulations 2016

The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012

Applied standards and specifications:

EN IEC 61326-1:2021

EN IEC 63000:2018

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PFEIFFER VACUUM

VACUUM SOLUTIONS FROM A SINGLE SOURCE

Pfeiffer Vacuum stands for innovative and custom vacuum solutions worldwide, technological perfection, competent advice and reliable service.

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From a single component to complex systems:
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